

## **Do Women Groups Promote More Equity as Compared to Men Groups? Evidence from Karnataka, India**

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*Multi and bilateral agencies have been promoting village level organizations to mobilize the poor for collective action to achieve good development outcomes in different sectors in Karnataka State, India. The World Bank formed self-help groups consisting of women for their economic development and empowerment in six districts of the State since 2000. It has also intervened in drinking water and sanitation sector by forming village water supply and sanitation committees since 1993. These committees consisted mainly of men. The DFID has initiated watershed development programs in three districts of the State since mid-1990s. Watershed Development Committees, people's organizations formed under the program, consisted mostly of men. Has the gender composition of people's organizations in different sectors resulted in different development outcomes such as equity? This paper discusses this question in the specific context of three programs initiated by bi-lateral and multi-lateral agencies with the help of large database. The paper looks at equity in the access and use of development benefits in different sectors. It shows that while benefits provided by the women's groups tend to promote equity by favoring poorer and socially marginalized members, the water supply and watershed management projects tend, at best, to be equitable with respect to all members. In a number of instances, they appear to favor the higher caste households and wealthier members. The paper argues that mere presence of women in the collective action groups does not lead to good development outcomes, and that, a number of institutional features are required for the collective action groups to promote equity.*

*Keywords: development outcomes, equity, collective action, women development and empowerment, water supply and sanitation, watershed*

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### **1. INTRODUCTION**

Multi-lateral agencies such as the World Bank and bi-lateral agencies such as DFID have been promoting organizations to mobilize the poor for collective action to achieve good development outcomes in different sectors in the State of Karnataka, located in southern India. The World Bank initiated Rural Women Development and Empowerment Program (RWDEP) in six districts of the State in 2000. Under this program, self-help groups (SHGs) for women were formed. Access to financial services (such as savings and credit) was also sought to be improved. Women held leadership positions in these local organizations. The World Bank has also been intervening in the drinking water and sanitation sector in 1993. It has been funding Integrated Rural Water and Environmental Sanitation (IRWES) project to promote participatory governance in the provision of drinking water to the needy regions and people. Under this program, village water supply and sanitation committees were formed with members selected from all the households benefiting from the project. Although a certain proportion of executive positions is reserved for women, men formed a majority of the members in the executive committees at the village level. DFID initiated Karnataka Watershed Development (KAWAD) programs in three districts of the State in mid-1990s. Watershed Development Committees, people's organizations formed under the program, consisted mostly of men, while SHGs under this program consisted of women. Thus, the gender composition in the membership of groups and decision bodies was different in these three programs. Has the gender composition of people's organizations in different sectors resulted in different development outcomes such as equity?

This question has been discussed in this paper with the help of data collected from 1,695 households benefiting from these three programs in six districts of Karnataka<sup>1</sup>. Two districts (Kolar and Chitradurga) for RWDEP, two (Belgaum and Gulbarga) for RWSS and three (Bellary, Chitradurga and Bijapur) for watershed were purposively selected on the basis of level of development. From each district, three blocks where these projects have been implemented were randomly selected. From each block, 18 villages were randomly selected. After reaching each of the villages, the field team conducted organizational mapping to find out people's organizations (formed by external as well as government agencies) and select one each from these categories. In the case of RWDEP, 72 organizations at the village level (self-help groups) were studied; of them, 30 were formed by the World Bank program, 29 by the government and 13 by the NGOs. In the case of water supply and sanitation, 90 village level organizations were covered: 30 of them belonged to the World Bank program, 36 to the line department and 24 to the local government (gram panchayat). In the case of watershed program, 38 people's organizations at the village level were covered; KAWAD had formed 30 of these groups, while the line department had formed the rest. From each village, 16 households belonging to different poverty groups<sup>2</sup> were randomly selected. In general, 50 percent of the sample households in each village belonged to the organizations initiated by the multi and bilateral agencies, while the rest belonged to the other organizations. The data were, thus, collected from 552 member households benefiting from women development and empowerment projects, 576 households benefiting from water supply and sanitation projects and from 567 households obtaining benefits from watershed development projects.

In this paper, equity outcomes have been measured in three ways: Attendance at a local organization's meetings; participation in decision-making; and receipt of development benefits. Sometimes, the three are linked. The nature of benefits to members varied from sector to sector. Variables used to assess equity are caste/ religious group, size of operational holding, and poverty ranking. Data used in this paper were drawn from the household surveys.

## 2. ABOUT THE PROGRAMS

In this section, the programs covered in the paper have been briefly described. The main purpose of the description is to provide some background information as well as design features relating to the composition of people's organizations.

### WOMEN DEVELOPMENT AND EMPOWERMENT PROGRAMS

Poverty in India has a strong gender dimension. In order to develop and empower women, the government has been formulating policies and programs. A constant review of these policies and programs, based on evaluation and studies conducted on government-initiated women development and empowerment programs, and the successful 'programs' of civil society organizations within and outside the country, together with political mobilization of women, have resulted in the following (Rajasekhar 2002a). First, different actors from both public and private sectors have emerged to undertake functions relating to women development and empowerment. Second, there was a shift in strategy from issuing loans to individual beneficiaries to using micro-finance as an instrument for development and empowerment of women organized in SHGs. The following two programs, which were implemented in Karnataka in the late 1990s, were part of this changed strategy towards women development and empowerment.

#### *RWDEP*

A five-year RWDEP was initiated in 1999 by the World Bank with a total budget of 191.21 crores. The rationale for the project relates to male-female inequities in the household, occupational, social and political

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<sup>1</sup> These data were collected by the Decentralization and Development Unit of ISEC as a part of the World Bank Study on 'Roles of Rural Local Organizations' carried out in Karnataka, Madhya Pradesh and Uttaranchal States of India during 2002. As the paper focuses on Karnataka, the data collected from only Karnataka State have been used.

<sup>2</sup> For this purpose, poverty mapping was undertaken in all the sample villages.

spheres (World Bank 1997: 1–2). The project aims at strengthening the processes that promote rural women's economic development, and creating an enabling environment for their social change.

Called Swa-Shakthi, the project is being implemented by DWCD and Women Development Corporations through NGOs in seven districts<sup>3</sup> in Karnataka since 1999. Each of the NGOs, the number of which ranges from one district to another, has been assigned the responsibility of forming about 50 SHGs in a block. The program covered about 50 percent of the blocks in Kolar and all the blocks in Chitradurga.

### *Stree-Shakthi*

DWCD launched the Stree-Shakthi program in 2000 on the grounds that although women development programs were being implemented in Karnataka since 1978 and both government and NGOs made several efforts in this regard, the desired results could not be achieved (GOK 2002a; 2). The main objective of the program is to strengthen the processes that promote economic development of women and create an environment for social change. In order to achieve this objective, the SHGs involved in savings and credit were formed, income generation activities were promoted and resources under different government programs were sought to be converged.

DWCD aimed to implement the program in all the 175 blocks in the state to organize 1.5–2.0 million women in one hundred thousand SHGs and in all the blocks in the selected districts in Karnataka. The program was initiated with one-day awareness training for all the officials concerned of DWCD at the state and district levels. The program made rapid strides in 2000–01; within just eight months after the launch of the program, 55,223 groups had been formed. By September 2002, the total number of Stree-Shakthi groups was 75,011. The progress between 2001–02 and 2002–03 was either slow or decelerating as the state government decided to go slow in group formation and strengthen the existing groups. In terms of total number of groups formed, the program is the single largest one in both the selected districts and in the state.

### *People's organizations at the village level*

Under the programs discussed above, SHGs were formed to mobilize women and to enable them to undertake activities collectively at the village level. SHGs are small in size consisting of about 15 members and were formed only for women. As per the design, each group should be homogeneous in socio-economic terms and focus on the poor in the village. Each of the group would be managed by two democratically elected representatives. Frequent rotation of leadership was one of the design principles. The group would meet 2–4 times in a month, and collect savings from members and disburse loans on the basis of agreed criteria. Since the accumulated savings amount was not expected to be sufficient to meet the credit needs of members, the groups would be linked with public sector banks to mobilize financial assistance.

## WATER SUPPLY AND SANITATION PROGRAMS

A review of past policies, programs and progress (Rajasekhar *et al* 2002) brings out that the Indian government's efforts to provide adequate quantity of safe drinking water yielded significant results. Yet, the goal of providing adequate quantity of potable water to all persons living in rural areas has not been achieved for a number of reasons<sup>4</sup>. There has also been a shift in the concept from water as public good to a commodity that should be priced, and the approach should be from supply to demand driven. There were two important developments in the implementation of Rural Water Supply and Sanitation (RWSS) programs in India. First, the participation of the people in the implementation and maintenance of water supply sources has been emphasized. Second, with recent move towards decentralization, a number of local organizations at the district

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<sup>3</sup> In the first phase, the project was implemented in Chitradurga and Kolar districts. Later, it was extended to five more districts, namely, Bellary, Tumkur, Koppal, Raichur and Gulbarga.

<sup>4</sup> The important reasons are frequent changes in the norms of adequacy, poor planning and implementation, and water supply sources depending solely on depleting groundwater sources, poor coordination in augmenting groundwater resources and inadequate importance given to maintenance resulting in the re-emergence of problem habitations.

level and below have been entrusted with the responsibility of both creating and maintaining the RWSS works. The World Bank program of IRWES reflects this new approach towards water supply and sanitation. Although the government program of Accelerated Rural Water Supply Program (ARWSP) did not emphasize the formation of separate people's organizations at the village level, the implementation has been through line departments and decentralized government at the district level and below in Karnataka. IRWES has been implemented through separate agencies created at the state and district levels, NGOs and private firms (contracted for the project), and the local decentralized government have also been involved in the implementation of the programs. The design of these programs specifies functions to different local organizations (line departments, PRIs, NGOs and CBOs) at the district and below, and provides for certain assets (human, material and organizational) and seeks to achieve equitable, effective and sustainable development outcomes through certain processes (participation, accountability and transparency). These two programs have been briefly discussed below.

#### *Accelerated rural water supply program*

The basic objective of the ARWSP is to supplement the efforts of the state governments in providing safe and potable drinking water to rural habitations on a long-term basis. In Karnataka, the Department of Rural Development and Panchayat Raj (RDPR) coordinates the provision of water supply for domestic purposes in over 56,682 rural habitations in conformity with the national norms for rural water supply. The rural development engineering department undertakes the above functions on behalf of the rural development department. The engineering department provides technical and monitoring support and drilling services to the district engineering divisions. The department also promotes rural sanitation through the schemes of Nirmala Grama Yojana, the Central Rural Sanitation program and Swachcha Gram Yojana.

In Karnataka, the water is supplied through three different types of sources: Piped Water Supply (PWS), Mini-Water Supply (MWS) and Borewell with Handpump (BWH). The total number of piped water supply schemes completed (under both the State and Central sector schemes) and commissioned were 14,095 in March 2001. The number of Mini Water Supply Schemes and borewells with handpumps, which had been completed and commissioned were 17,022 and 172,000, respectively, in the same year.

#### *Integrated rural water and environmental sanitation project in Karnataka (IRWES)*

IRWES has been implemented in 12 districts, covering about 1,200 villages, since the early 1990s with the objective of raising the standard of living in rural areas through improved health and productivity as a result of improved access to potable water and environmental sanitation. The project was expected to cover 1,200 villages. By June 2002, the number of villages where the schemes were fully commissioned was 1,034. The schemes in 950 villages had been handed over to the gram panchayats for maintenance. The schemes were partially commissioned in 13 villages and were in progress in 51 villages. The gap between the number of villages where the scheme was commissioned and where the schemes were handed over was large in the two selected districts Belgaum and Gulbarga. In Belgaum district, out of 102 schemes commissioned, only 83 were handed over to the gram panchayats. In Gulbarga also, only 74 out of 94 schemes commissioned were handed over to the gram panchayats. The reasons for this gap were the conflict between the VWSC and the engineer on matters relating to quality of construction, and actual construction being at variance with the design.

#### *People's organizations at the village level*

Under IRWES, NGOs formed Village Water Supply and Sanitation Committees at the village level. As per the design, all the households will have membership in the general assembly, and persons representing different interest groups will be elected to the VWSC in a democratic manner. In order to ensure the representation of persons belonging to disadvantaged groups, reservations have also been provided in the design. VWSC was expected to meet once in a month. The main functions of VWSC was to mobilize community participation (in terms of contributions, ideas and labor) in the implementation of the project. VWSC was also expected to take care of the operation and maintenance of water supply projects created under IRWES. However, in order to

build sustainability into the project, the design changes were brought in later. Local decentralized government was asked to take over the completed projects for operation and maintenance.

As noted earlier, the water supply in Karnataka was provided through three sources. While the line department operated BWH sources, the sources of PWS and MWS were operated and maintained by the local decentralized government. There was no organization for users of BWH at the village level. An attempt was made by the government to bring the users together; but, it did not succeed. If there was any problem with BWH source, the people were expected to report to the line department office located at the sub-district town.

In Karnataka state, local decentralized government at the village level is called gram panchayat. Being the constitutional body, elections are required to be held once in five years and reservations for disadvantaged groups of women and depressed castes are provided. All the voters in the village are formed into village assembly (gram sabha), which is expected to meet twice in a year to bring the various problems to the notice of the elected representatives, prepare village level plans, monitor the implementation status of development projects, etc. The gram panchayat, consisting of only elected representatives, is expected to meet at least 12 times in a year to implement the development works.

## WATERSHED DEVELOPMENT

The Indian government has been giving considerable attention to secure the livelihoods of those depending on land in rural areas through watershed development programs since the First Five-Year Plan, though the relative importance given to watershed sector differed across different five year plans. A constant review of these programs<sup>5</sup> has resulted in the following changes in approaches and strategies relating to rainfed agriculture, in general, and watershed development, in particular:

- The approach to development of India's dry lands has shifted from soil conservation to watershed development.
- The strategy has shifted from mere soil and water conservation to supporting the entire livelihood system of the people residing in ecologically fragile zones. The concerns of the poor and women have been sought to be included.
- The 'top-down' and or 'line department' oriented planning has been replaced by 'participatory watershed development' to involve the key stakeholders in planning, implementation and monitoring (Kolavalli and Kerr 2002; Deshpande and Narayanamoorthy 2000).
- The implementation arrangement has changed from that of predominantly line department program to the one where different types of organizations are involved in the implementation (Shah 1998).

The programs initiated by the multi and bilateral agencies as well as those initiated by the government also incorporated these new approaches, strategy and implementation arrangement.

### *Karnataka Watershed Development (KAWAD)*

DfID supported KAWAD program aims to 'reduce poverty of watershed communities on a sustainable basis' with a two-pronged strategy of sustainable development of renewable natural resources on watershed basis and enabling the watershed community, especially poorer sections, to undertake non-land based economic activities. The project has been implemented in three drought-prone districts of Bijapur, Bellary and Chitradurga. Covering only about 1–2 percent of the total villages in each of these districts, the project is insignificant in terms of size. However, with learning component built into the program, the aim is to make significant contributions to the policy and program implementation aspects of Karnataka watersheds. The responsibility to implement the project at the district level was assigned to different types of organizations. The responsibility was assigned to the District Watershed Development Department in Bijapur district, the Zilla Panchayat (district level local government) in Bellary and to MYRADA, a large NGO in Karnataka with vast experience in participatory watershed development and propagating its best practices, in Chitradurga district. These organizations implemented the project with the help of local NGOs.

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<sup>5</sup> See, Rajasekhar (2002b), and Deshpande and Narayanamoorthy (2000), for more details.

### *Government programs in Karnataka*

Karnataka government has been implementing Drought Prone Area Program (DPAP) and Dryland Development Program (DDP) for watershed development. DPAP, the implementation of which in Karnataka began in 1973–74, has so far implemented the program in 81 blocks of 15 revenue districts covering 406 watersheds. The DDP, the implementation of which was started in 1977, has implemented 130 watersheds in 22 blocks of six districts.

### *People's organizations at the village level*

Following the guidelines formulated by the Indian government in the mid-1990s, the implementation arrangement followed in government projects was the same as that followed in the externally assisted projects. For each micro-watershed, a committee with representation from different interest groups was formed. This is usually called Micro-Watershed Development Committee (MWSDC); there were several such committees in a village, if more than one micro-watershed existed. While all the members of MWSDC are expected to meet 2-4 times in a year, the executive committee (consisting 10-15 members and representing different interest groups) is expected to meet more frequently. As per the design, SHGs is to be formed for each interest group (landless agricultural laborers, women, marginal farmers, small farmers and so on) coming under micro-watershed for the purpose of capturing their interests and incorporating the same in the planning and implementation of watershed development activities. SHGs, which also undertake the functions of enabling the members to contribute savings and provide credit facility, met 2-4 times in a month. Two representatives are to be elected democratically. It is not necessary that the SHGs under the watershed programs should consist of women.

As a way of concluding this section, an attempt is made to bring the similarities and dissimilarities across the projects initiated by the government and external agencies in three different sectors. All the projects have made institutional arrangements at the village level to mobilize people and organize them. In the design, the composition of people's organizations and the management committee has been specified to ensure that persons belonging to different socio-economic categories are included. Mechanisms such as meetings are specified for the people to participate in the collective action. The key difference is that women development and empowerment program is exclusively for women. This, in turn, resulted in the constitution of people's organizations and management committees with only women. In the case of the other two programs, the membership was open to all – men and women, rich and poor, cultivators and laborers. The management committees, as per the design, should consist of both men and women. This was sought to be ensured by reserving certain proportion of executive positions to women.

## **3. ORGANIZATIONAL PERFORMANCE**

In this section, we make an attempt to discuss the performance of local organizations in terms of equity outcomes. Equity is measured through participation of members in meetings, participation in decision-making and distribution of development benefits. The nature of benefits to members varies from sector to sector, and these have been discussed at the beginning of each section below.

Three variables that affect participation in meetings are caste/ religious group, size of operational holding, and poverty ranking. Sample households have been categorized according to these criteria. All the above mentioned variables have been analyzed and discussed in the ensuing sections sector-wise.

### **WOMEN DEVELOPMENT AND EMPOWERMENT PROJECTS**

Rural credit markets in developing countries are imperfect because there is no certainty about the completion of a credit transaction. A credit transaction is complete only when a borrower repays the loan. One cannot be,

however, sure about this repayment. It is argued that borrowers and lenders face risks in the credit market<sup>6</sup>. The lenders' risks can be minimized if they have accurate information on the type of borrower and the actions of the borrower relating to the utilization of loan and repayment. Thus, three key problems of selection, monitoring and repayment, together with the costs associated with obtaining information on these three aspects will determine imperfections in the credit markets and access of the people to credit. The imperfections in rural credit markets in developing countries (Hoff *et al* 1993) often result in higher transaction costs, adverse selection and moral hazard and reduced volume of transactions<sup>7</sup> leading to welfare loss especially for the resource-poor households.

Micro-finance is widely regarded as an innovation having the potential to minimize risks in the credit market (Ghatak 1999; Ghatak and Guinnane 1999; Morduch 1999; Armendáriz de Aghion 1999). Micro-finance implies providing the poor with savings, credit and insurance facilities to set up or expand Income Generating Activities (IGAs) relating to agriculture, allied activities and non-farm sector, and thereby increase household income security. The joint liability in micro-finance groups provides incentives or compels the group to undertake the tasks of selection, monitoring and enforcement of repayment in a cost-effective manner, leading to reduced transaction costs, increased volume of transactions and improved access of the poor to credit. For this to happen, the group should be small and homogeneous, and have access to incentives<sup>8</sup> (Olsen 1965; Stiglitz 1990; Morduch 1999). The joint liability works better in communities characterized by close social ties and social capital, and in remote areas not having access to alternative sources of credit (Sharma and Zeller 1997).

The knowledge on achievements of micro-finance is partial and contested. While one group of studies (Hashemi, Schuler and Riley 1996; Puhazhendi and Badatya 2002) argues that micro-finance has very beneficial social and economic impact, others caution against such optimism (Montgomery *et al* 1996; Goetz and Sen Gupta 1996; Buckley 1997; Rogaly 1996; Mayoux 1998; Rajasekhar 2002c; Kropp and Suran 2002). Other studies suggest beneficial impact of micro-finance programs; but argue that micro-finance does not assist the poorest (Hulme and Mosley 1996). Several factors contribute to the less than optimal outcomes of micro-finance<sup>9</sup>. In this section, we seek to address the following question. What processes need to be provided so that adverse effects of socio-economic environment can be neutralized, and equitable development benefits can be provided?

Participatory processes play an important role in achieving equitable outcomes of micro-finance programs. If members regularly attend meetings of groups and participate in decision-making, the concerns and interests of the poor can be represented and secured. This implies that the micro-finance groups characterized by democratic decision-making can achieve good development outcomes such as improved access to qualitative credit with which new livelihood opportunities can be pursued or older ones can be strengthened. Hence, we present here the data on attendance at meetings and decision-making by different socio-economic groups, and development benefits dis-aggregated by socio-economic groups. In the women's development and empowerment sector, the benefits analyzed include:

- number of loans obtained from the group;
- quality of credit delivered by the group; and,
- quality of credit delivery from banks.

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<sup>6</sup> Borrowers face the risk that the expected increase in income from an investment project for repayment may or may not materialize. On the other hand, lenders' risk has two elements: one relates to the same risk with which the borrower is faced, and the other relates to the borrowers' ability to pay; even if he is able to pay, he may not actually repay.

<sup>7</sup> Credit rationing in rural credit markets with imperfect information (Stiglitz and Weiss 1981) has differential impact on different classes of borrowers. It is the poor who suffer on account of loss of access to credit (Gonzalez-Vega 1984; Adams and Vogel 1986).

<sup>8</sup> These are savings linked to credit, disbursing a second and larger loan after repaying the first one, etc.

<sup>9</sup> Among them, design-specific factors such as improper functional specification (Harper 2002), and overlapping of functions, inadequate human assets, lack of incentives to the staff (Rajakutty 1997; Kropp and Suran 2002), inability to incorporate and provide organizational assets (Rajasekhar 2002c) and adverse socio-economic environment (Rogaly 1996; Rajasekhar 2002d) have received some attention.

*About sample villages, groups and households*

Stree-Shakthi was implemented in all the districts in Karnataka, and the program did not have any criteria to work in any specific district and block. The DWCD asked each anganawadi worker<sup>10</sup> to form at least three groups in the area covered by the anganawadi centre, the presence of which, thus, determined the choice to work in a village. Each of these groups was to include 15–20 women members who were poor, illiterate, landless agricultural laborers and those belonging to depressed castes<sup>11</sup>.

During the first phase, RWDEP worked only in two Karnataka districts, selected on the basis of human development index. The blocks and villages were selected on the basis of the proportion of the poor, sex ratio, literacy and SC/ST population, though the availability of reputed NGOs was the key factor in the selection of a few blocks. The selection of households was the responsibility of NGOs. As per the design, the NGOs were to conduct two rounds of PRA exercises before and after the selection of households for the group. The first one was to assess the village conditions and wealth of the households, the basis on which the households were selected for inclusion in the group. The second exercise was to find out the situation of group members and formulate activities accordingly.

The village characteristics such as distance to the nearest town, size of the village, incidence of SC/ST and very poor and poor households in a village and development status of the village did not differ significantly between the LO types. This was only to be expected as the sampling procedure adopted the strategy of reaching the other local organizations by going to the villages with project interventions.

In 36 sample villages, a total of 73 SHGs had been formed; 30 of them belonged to Swa-Shakthi program, 29 to Stree-Shakthi, and 14 to the category of others consisting of groups formed by NGOs. The Swa-Shakthi groups in both the states typically consisted of landless and marginal farmers belonging to depressed castes of SC/ ST. These groups were also economically homogeneous. The socio-economic homogeneity in Swa-Shakthi could be achieved because the formation of groups under the program was mostly based on a wealth-ranking exercise, which helped NGOs to include SC/ST households belonging to poorer categories. In comparison, Stree-Shakthi groups had lower incidence of SC/ST households and socio-economic homogeneity could not be achieved in most of the cases.

Over 67 percent of the groups were formed in 2000 or before. Most of the Swa-Shakthi groups were formed in 2000, while most of the Stree-Shakthi groups were formed in 2001 or after. Thus, over 90 percent of all the sample groups were formed in 2000 or after, and therefore, could be considered recent.

As per the rules formulated by the members themselves, a group was required to meet four times in a month at a place and time convenient to all the members. Two representatives from among the members were elected. The representatives were expected to call for meetings, prepare the agenda, conduct meetings, facilitate the decision-making process (relating to disbursement of loans, repayment, linkages with banks, etc.) and maintain accounts. In view of widespread illiteracy, however, the staff<sup>12</sup> undertook the last function.

With this as background information, let us now proceed to present evidence on equity achieved in groups formed by different types of groups. It should be noted that the RWDEP or Swa-Shakthi groups are referred to as Project Initiated and those formed under Stree-Shakthi as Line Department Initiated to bring out the differences in equity outcomes across different types of local organizations (LOs).

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<sup>10</sup> A temporary woman staff of the department to look after the child-development program at the village level.

<sup>11</sup> The women belonging to the households consisting of alcoholics and physically handicapped were also to be included.

<sup>12</sup> NGO field worker in the case of RWDEP, and anganawadi worker in the case of Stree-Shakthi regularly assisted the groups.



*Equity in attendance at meetings*

Regular attendance at meetings by members in micro-finance groups indicates that member households perceive benefits from their collective action. Table 1 summarizes attendance at meetings by the member households in the women development and empowerment projects and by organizational type. A majority of the member households from all types of LO had always attended the LO meetings. Meetings of project initiated LOs had relatively better attendance than other type of LOs. About 2 percent of the member households from project initiated LO had never attended the LO meetings as compared to 9 percent of respondents from other type of LOs.

Table 1—Distribution of households (%) by attendance at meetings and type of LO in women development and empowerment projects

Type of LO	Attendance at Meetings			Total (N)
	Always	Sometimes	Never	
Project Initiated	82.88	15.56	1.56	257
Line Department Induced	71.82	19.55	8.64	220
Others	74.67	16.00	9.33	75
Total	77.36	17.21	5.43	552

The three variables that can affect the attendance at meetings are caste, landholding and poverty of the sample households. Findings of these variables have been presented here. Table 2 shows that a majority of the members belonging to minorities and scheduled caste groups stated that they always attended the LO meetings. The proportion of member households belonging to forward caste, who stated that they attended the meetings regularly, was relatively higher than the proportion of member households belonging to scheduled tribe and backward caste. Relatively larger proportion of member households belonging to forward caste stated that they never attended the meetings.

Table 2—Distribution of households (%) by attendance at meetings and caste in women development and empowerment projects

Caste	Attendance at Meetings			Total (N)
	Always	Sometimes	Never	
Scheduled Caste	81.31	15.15	3.54	198
Scheduled Tribe	72.84	20.99	6.17	81
Backward Caste	72.73	20.71	6.57	198
Forward Caste	77.55	12.24	10.20	49
Minorities	96.00	4.00	0.00	25
No Information	100.00	0.00	0.00	1
Total	77.36	17.21	5.43	552

A majority of the landless member households (82.42%) had higher attendance at meetings as compared to the large cultivators and followed by the member households owning small size of landholding (Table 3). Among large cultivators (10+ acres), about 67 percent attended the meetings regularly and 25 percent attended sometimes, while about 8 percent never attended the meetings.

Table 3—Distribution of households (%) by attendance at meetings and size of operational landholding in women development and empowerment projects

Size of Operational Landholding	Attendance at Meetings			Total (N)
	Always	Sometimes	Never	
No Land	82.42	13.33	4.24	165
< 1 acre	78.57	21.43	0.00	42
1 to 2.5 acres	76.26	17.68	6.06	198
2.5 to 5 acres	72.55	20.59	6.86	102
5 to 10 acres	75.76	15.15	9.09	33
10+ acres	66.67	25.00	8.33	12
Total	77.36	17.21	5.43	552

From Table 4, it is evident that irrespective of poverty categories of sample households, a majority of them stated that they always attended the meetings. Notably, about 79 percent of the member households belonging to very poor category had stated that they attended the meetings regularly and only about 4 percent of them had never attended the meetings. About 17 percent of the member households had sometimes attended the LO meetings.

Table 4—Distribution of households (%) by attendance at meetings and poverty rank in women development and empowerment projects

Poverty Rank	Attendance at Meetings			Total (N)
	Always	Sometimes	Never	
Very Poor	78.72	17.73	3.55	141
Poor	77.21	18.14	4.65	215
Middle	76.77	15.48	7.74	155
Wealthy	75.61	17.07	7.32	41
Total	77.36	17.21	5.43	552

The factors contributing to widespread participation of members in micro-finance groups are not far to seek. First, the groups were small and based on neighborhood concept; this meant that it was easy to bring all the members together at a meeting. Second, one of the responsibilities of the representatives was to ensure that all members were present. It was found in the field that representatives took this function very seriously and made all efforts to bring the members to the meeting. Third, fines were imposed on those coming late to the meeting. If a member was consistently absent, she was given warning that her membership would be cancelled. Fourth, there were positive incentives. The attendance was linked to decision on whether loan will be sanctioned or nor. Fifth, members were expected to contribute their savings in the group meetings. If any member sought to send the savings through neighbor or her household member, this was discouraged. We were, however, told that this still was a widespread practice in the line-department initiated groups. Thus, a combination of institutional features, and human and organizational assets contributed to participation of members including those belonging to poorer categories and depressed castes.

### *Equity in decision-making*

Participation in decision-making is necessary to achieve equity, as widespread participation paves way for representing the needs of all the members and discussion on how to allocate scarce resources in such a manner that it will ensure equity in the distribution of benefits among members. We have considered two variables to measure equity in decision-making. First one was to know who appointed the representatives of LO and who had the final say in important decisions. Second one was to examine the poverty status of the decision-makers which helped to measure the extent to which the outcomes are pro-poor.

Distribution of households by participation in decision-making has been presented in Table 5. It is evident that about 93 percent of the member households stated that organizational members were largely involved in the

selection of representatives of LO. Partial involvement by the NGO/ LD staff in the appointment of LO representatives was stated by about 30 percent of the sample households (most of them belong to line-department initiated LOs). Notably, involvement by either influential members or non-members was marginal.

Final say on important decisions such as disbursement of loans, etc, was with the LO members followed by representatives of LO. About 2 percent of the member households responded that dominant members in the LO were the key decision-makers (Table 5).

Table 5—Distribution of households (%) by participation in decision-making by organizational position in women development and empowerment projects

Who Appoints the Representatives of LO?	To a Large Extent			Do Not Know		Total (N)
	Partially	Not at All	Know	No Response		
Members	93.30	3.44	2.17	1.09	0.00	552
Influential Members	0.36	2.90	94.57	1.81	0.36	552
Influential Non-members	0.54	2.17	93.84	3.08	0.36	552
Locals Who Initiate the Organization become Leaders	0.18	1.81	94.57	3.26	0.18	552
NGO/LD Staff	12.50	29.53	54.35	2.90	0.72	552

  

Who has the Final Say in Important Decisions (such as giving a LO loan and giving a larger and emergency loan)?								
State	Representatives of LO	All the members	Dominant members in the LO	GP President	NGO/ LD staff	Others	Do not know	Total (N)
	Karnataka	12.32	83.51	1.45	0.0	0.54	1.27	

As Table 6 clearly shows, the members and representatives of LO, who were the key decision-makers, did not largely represent any single poverty category but they hailed from all categories of poverty. It, therefore, appears that the poverty status of those involved in the decision-making seems to have had very marginal effect on their participation in the decision-making. It should be, however, noted that this was not the case in each and every village. The case of RWDEP group in Box 1 shows that this was not the case.

**Box 1—Did all members participate in decision-making?**  
 In Yethur village in Kolar district, five members of Swa-Shakthi group met the research team in the presence of the office-bearers and NGO staff to complain that the office-bearers and a few better-off members took the decision to disburse the bank assistance, and that they were discriminated against. The office-bearers defended the decision on the grounds that the main complainant did not repay the previous loan. The complainant group refuted this on the following grounds: First, those given loans were also defaulters at the time of loan disbursement and they repaid the loans on the day of disbursement as they had prior information. Second, the complainant group claimed that they did not even know that the group obtained the bank assistance. Third, the reason for not repaying the loan was genuine (the bread-earner was sick and hospital expenses were to be met on a priority basis), and the group did not understand her problem sympathetically. The fact that the office-bearers were found to be in an uncomfortable state all through this open discussion shows that all the members did not together decide the distribution of benefits.

Table 6—Distribution of households (%) by participation in decision-making by poverty rank in women development and empowerment projects

Who has the final say in important decisions (such as giving a LO loan and giving a larger and emergency loan)?	Poverty Rank			
	Very Poor	Poor	Middle	Wealthy
Representatives of LO	12.06	9.77	16.13	12.20
All the Members	84.40	86.05	80.65	78.05
Dominant Members in the LO	0.71	1.86	0.65	4.88
NGO/LD Staff	0.71	0.47	0.65	0.00
Others	2.13	0.93	0.65	2.44
Do Not Know	0.00	0.93	1.29	2.44
Total	141	215	155	41

The case presented in Box 1 suggests that when the benefits to be distributed were significant, vested interests surfaced and the decision-making was subverted to serve the interests of the few. If this was the case, how come a large proportion of sample households stated that members in the group together took key decisions relating to the disbursement of loans. The contributing factors for the democratic decision-making are as follows. First, the savings were the starting-point in all the groups. This being members' own money, the incentives for the participation in the decision-making relating to disbursement of loans were high. Second, joint-liability principle worked in these groups. All the sample members were aware that if a member did not repay the loan, the loss would have to be borne by all the members. This prompted them to take an active part in the discussion on to whom loan is to be disbursed and for what purpose, etc.

#### *Equity in the distribution of benefits*

An important benefit of micro-finance groups is access to credit facility. The variable on the number of loans obtained by each member indicates the reliability of credit facility provided by the groups. The groups provided at least one loan to nearly three-fourths of members. The credit facility was extended once to about 30 percent of members, twice to over 23 percent of members and thrice to nearly 16 percent of members. The groups provided 4 or more loans to about five percent of members. The proportion of members not obtaining even one loan was about 26 percent.

Did the access to credit facility differ across the socio-economic groups? Table 7, on the number of loans obtained by members belonging to different caste groups, shows that 48 percent of the members belonging to the minority community had received loans for three or more number of times. Similarly, about 20 percent of the scheduled caste and tribe members had obtained three or more loans from the group. In contrast, only about 10 percent of members belonging to forward castes had received three or more loans. A similar picture emerges when one looks at the proportion of members not obtaining any credit from groups by caste categories. All these suggest that members belonging to lower castes and Muslim minority were not discriminated in the disbursement of loans.

Table 7—Distribution of households (%) by number of loans obtained and caste in women development and empowerment projects

Caste	Number of Loans Obtained from the Group					Total (N)
	No Loans Obtained	Once	Twice	Thrice	Four or More Times	
Scheduled Caste	19.70	29.80	30.81	17.17	2.53	198
Scheduled Tribe	23.46	29.63	27.16	13.58	6.17	81
Backward Caste	34.85	31.82	12.63	13.64	7.07	198
Forward Caste	32.65	30.61	26.53	6.12	4.08	49
Minorities	4.00	20.00	28.00	40.00	8.00	25
No Information	0.00	100.00	0.00	0.00	0.00	1
Total	26.09	30.25	23.19	15.40	5.07	552

The distribution of households by number of loans obtained and size of the operational landholding (Table 8) shows that members belonging to landless and small and marginal farmer categories had better access to credit from groups. None of the members owning more than 5 acres of land had received four or more loans.

Table 8—Distribution of households (%) by number of loans obtained and size of operational landholding in women development and empowerment projects

Size of Operational Landholding	Number of Loans Obtained from the Group					Total (N)
	No Loans Obtained	Once	Twice	Thrice	Four or More Times	
No land	23.03	36.97	18.18	17.58	4.24	165
< 1 acre	16.67	35.71	28.57	14.29	4.76	42
1 to 2.5 acres	25.76	26.26	28.79	11.62	7.58	198
2.5 to 5 acres	30.39	26.47	22.55	16.67	3.92	102
5 to 10 acres	39.39	27.27	12.12	21.21	0.00	33
10+ acres	33.33	25.00	16.67	25.00	0.00	12
Total	26.09	30.25	23.19	15.40	5.07	552

Table 9 shows that members belonging to very poor and poor categories of poverty were able to take more number of loans as compared to members belonging to middle and wealthy categories of poverty. About 6 percent of the members from very poor category had received loans for four or more number of times as against 2.44 percent of the wealthy households. It is evident from the table that about 37 percent of the households belonging to wealthy category had not received any loans. The data imply that groups were considerate to the poorer households which would have greater need to take repetitive loans as compared to the wealthy households, and that poorer households were not discriminated in the provision of credit from the groups.

Table 9—Distribution of households (%) by number of loans obtained and poverty ranking in women development and empowerment projects

Poverty Ranking	Number of Loans Obtained from the Group					Total (N)
	No Loans Obtained	Once	Twice	Thrice	Four or More Times	
Very Poor	17.02	32.62	22.70	21.28	6.38	141
Poor	26.51	33.95	21.86	12.56	5.12	215
Middle	30.97	26.45	23.87	14.19	4.52	155
Wealthy	36.59	17.07	29.27	14.63	2.44	41
Total	26.09	30.25	23.19	15.40	5.07	552

Table 10 presents the members' assessment on their LO's performance in providing loans and facilitating access to bank loans in women development and empowerment projects. It can be seen from the table the relatively good performance in the provision of credit through the LOs themselves but much poorer performance in enabling members to access credit from the rural banks.

Table 10—Distribution of households (%) by members' assessment of their LO's performance in providing loans and facilitating access to bank loans in women development and empowerment projects

Type of LO	Loans from LO				Loans from Banks			
	Very Well	Adequately	Poorly	Total (N)	Very Well	Adequately	Poorly	Total (N)
Project Initiated	63.04	14.40	22.57	257	14.01	8.56	77.43	257
Line Department Induced	61.82	19.55	18.64	220	14.55	10.00	75.45	220
Others	53.33	26.67	20.00	75	16.00	8.00	76.00	75
Total	61.23	18.12	20.65	552	14.49	9.06	76.45	552

Members' assessment of their receipt of credit from their LO has been presented by caste, landholding and poverty ranking in Tables 11 to 13. A larger proportion of the households belonging to minorities and scheduled tribes stated that their groups did very well in providing credit facility. In contrast, nearly one-fourth of members belonging to forward castes stated that their groups fared poorly in extending credit facility to them. The dissatisfaction was also high among households belonging to backward and scheduled castes (Table 11).

Table 11—Distribution of households (%) by members' assessment of their receipt of credit from their LO and caste in women development and empowerment projects

Caste	Very Well	Adequately	Poorly	Total (N)
Scheduled Caste	60.10	16.16	23.74	198
Scheduled Tribe	70.37	22.22	7.41	81
Backward Caste	56.57	20.20	23.23	198
Forward Caste	61.22	14.29	24.49	49
Minorities	76.00	12.00	12.00	25
No Information	100.00	0.00	0.00	1
Total	61.23	18.12	20.65	552

Interestingly, about 67 percent of the households owning more than 10 acres of land stated that their group did very well in providing credit facility. Similarly, about 66 percent of the landless households were also happy with their groups (Table 12). On the whole, over half of the households belonging to all the landholding categories stated that their groups did very well in providing credit facility. Table 13 shows that poorer categories were more happy with their groups' performance in providing credit facility.

Table 12—Distribution of households (%) by members' assessment of their receipt of credit from their LO and size of operational landholding in women development and empowerment projects

Size of Operational Landholding	Very Well	Adequately	Poorly	Total (N)
No Land	65.45	20.00	14.55	165
< 1 acre	57.14	16.67	26.19	42
1 to 2.5 acres	60.61	16.67	22.73	198
2.5 to 5 acres	59.80	17.65	22.55	102
5 to 10 acres	51.52	21.21	27.27	33
10+ acres	66.67	16.67	16.67	12
Total	61.23	18.12	20.65	552

Table 13—Distribution of households (%) by members' assessment of their receipt of credit from their LO and poverty ranking in women development and empowerment projects

Poverty Ranking	Very Well	Adequately	Poorly	Total (N)
Very Poor	64.54	18.44	17.02	141
Poor	58.60	19.07	22.33	215
Middle	61.29	18.71	20.00	155
Wealthy	63.41	9.76	26.83	41
Total	61.23	18.12	20.65	552

The members' assessments on their receipt of credit from banks have been captured in Tables 14, 15 and 16 by caste-wise, landholding and poverty categories, respectively. A majority of the households belonging to different categories showed dissatisfaction with the performance of their groups in obtaining credit from banks. However, of them, the households belonging to minorities and scheduled caste expressed more dissatisfaction (Table 14). Similarly, the households owning more than 5 acres of land were more in voicing their

dissatisfaction (Table 15). Wealthy households followed by poor households were of the opinion that their groups performed poorly in so far as the receipt of credit from the banks (Table 16).

Table 14—Distribution of households (%) by members' assessment of their receipt of credit from banks and caste in women development and empowerment projects

Caste	Very Well	Adequately	Poorly	Total (N)
Scheduled Caste	11.62	10.10	78.28	198
Scheduled Tribe	19.75	9.88	70.37	81
Backward Caste	15.15	8.08	76.77	198
Forward Caste	16.33	10.20	73.47	49
Minorities	12.00	4.00	84.00	25
No Information	0.00	0.00	100.00	1
Total	14.49	9.06	76.45	552

Table 15—Distribution of households (%) by members' assessment of their receipt of credit from banks and size of operational landholding in women development and empowerment projects

Size of Operational Landholding	Very Well	Adequately	Poorly	Total (N)
No land	15.76	8.48	75.76	165
< 1 acre	14.29	16.67	69.05	42
1 to 2.5 acres	14.65	7.58	77.78	198
2.5 to 5 acres	16.67	10.78	72.55	102
5 to 10 acres	6.06	6.06	87.88	33
10+ acres	0.00	8.33	91.67	12
Total	14.49	9.06	76.45	552

Table 16—Distribution of households (%) by members' assessment of their receipt of credit from banks and poverty ranking in women development and empowerment projects

Poverty Ranking	Very Well	Adequately	Poorly	Total (N)
Very poor	17.02	12.06	70.92	141
Poor	14.42	5.58	80.00	215
Middle	15.48	10.97	73.55	155
Wealthy	2.44	9.76	87.80	41
Total	14.49	9.06	76.45	552

### *Summary of findings on equity in Attendance at meetings, equity in decision-making & equity in distribution of benefits*

In women and empowerment projects covered in this paper, the attendance at meetings was high with no significant variation among different types of LOs. Caste, landholding and poverty status of the member households had almost no impact on the level of attendance at the LO meetings. In fact, a good participation in the meetings could be seen from the households belonging to more socially and economically backward categories, i.e. households belonging to weaker sections, landless, very poor and poor categories.

Organizational members were largely involved in the selection of representatives of LO. Partial involvement of the NGO/ LD staff in the appointment of LO representatives was also found. Notably, involvement of either influential members or non-members was marginal. Final say on important decisions such as disbursement of loans, etc, was with the LO members followed by representatives of LO. Women development and empowerment projects seem to have operated in an equitable manner. Poverty status of the member households had a marginal impact on their participation in the important decision-making.

There was a high degree of equity in the distribution of benefits among the members. This suggests that the projects were successful in targeting their interventions as per the project objectives. It is evident that the repeat loans were more often taken by the minority and lower-caste groups, landless and smaller cultivators, and poorer households.

Over half of the member households belonging to all caste groups had stated that their groups did very well in providing credit. In this regard, forward caste households expressed more dissatisfaction as compared to the households belonging to scheduled tribes. Among different landholding categories, more than half of the households in all landholding categories had said that they were happy with the performance of their groups in extending the credit facility. A majority of the very poor households stated that their credit needs were very well met by the LO. Reasonably good degree of equity in the distribution of credit by LOs to their members could be thus seen.

In contrast, a majority of the households belonging to different socio-economic categories expressed dissatisfaction with the performance of their groups in establishing linkages with banks and in obtaining credit from these agencies. The qualitative evidence shows that linkages between banks and micro-finance groups were hampered by supply-side (inadequate staff in the banks, rigid rules, lack of qualitative staff, etc.) and demand side (irregular savings in the group, etc.).

## WATER SUPPLY AND SANITATION PROGRAM

In the delivery of drinking water and sanitation services, donors and government have been advocating a community-based approach, which adopts a demand-responsive focus on what users 'want' and can 'afford' (Briscoe and Ferranti 1988). The community-based approach calls for joint and coordinated efforts by the government and the community in service design and construction (Watson and Jagannathan 1995). This, in turn, implies that there must be organizations at the local level to capture the interests of the people (in need of water supply services), represent these interests to program implementing agencies and secure them. The initiating agents must form LOs so that the community members act collectively, and design, construct, operate and maintain the system together. In order to accomplish the frequent and full participation of the community, LOs are expected to perform functions such as democratic decision-making (relating to planning and evaluation), resource mobilization and management, delivery of services, etc. Frequent, full, predictable and effective performance of these functions indicate collective action, leading to good development outcomes.

Several factors have contributed to the less than optimal outcomes of RWSS works. Among them, design-specific factors such as inability of the implementing agencies to undertake the specified functions (World Bank 1999: 13-4), improper functional specification (World Bank 1999: 20) and overlapping of functions (GOK 2001), inadequate human, material and organizational assets (GOK 2002b: 496; Meinzen Dick and Meyra 1996) have received attention. Further, adverse socio-economic environment (GOK 2002b: 497; Rao 1998; Sharma 1998; Prasad 1999) has also affected the ability of the development programs to provide water supply benefits. An attempt has been made in this section to examine the influence of composition of people's organizations on equity outcomes.

Equity outcomes are measured in three ways: attendance at a local organization's meetings; participation in decision-making; and receipt of development benefits. For RWSS projects, we assess (a) reduction in time required to collect clean drinking water, (b) improvement in individual sanitary facilities, and (c) availability of new facilities for washing clothes. Before we assess equity outcomes, let us briefly discuss how the projects were implemented, and the study villages and groups.

### *About sample villages and groups*

In Karnataka, water supply has been originally the responsibility of the line department. However, after the 73<sup>rd</sup> Constitutional Amendment in 1992, gram panchayats were provided with the responsibility of ensuring the water supply to the rural people. Hence, the functions of operation and maintenance of water supply through MWS and PWS were transferred to gram panchayats, while the line department continued to hold the



responsibility of designing and creating water supply sources, and maintaining borewells with handpumps. Although the World Bank program was supposed to be demand responsive, it so happened that the program provided water in all the villages through PWS. A question that came up during the design phase was that whether the assets created under the program should be transferred to gram panchayats for sustaining the project benefits. However, since the 73<sup>rd</sup> Constitutional Amendment was just brought in and efforts were still being made to operationalize the functional devolution, it was thought that the decision on the transfer of assets to gram panchayats could be taken later.

The processes adopted in the village selection for interventions varied across water supply projects initiated by these different agencies. The line department sunk borewells practically in all the villages, and generally, on the basis of need, and also responses coming from either below or from representatives of the political bodies. The gram panchayats constructed MWS and PWS in their effort to supplement the existing sources, and on the basis of need. The World Bank program followed somewhat different processes. The villages selected for program implementation were in need of new and/or supplementary water sources. But, the program design, which depended on the line department for information on demand and which sought to combine the interests of contractors, resulted in the non-selection of more needy villages. Influence of politicians and officials in the selection was also more evident here. Further, the villages where groundwater resources were depleting were selected, and as a result, the initial conditions for the success of LOs in undertaking functions and achieving good development outcomes were not favorable.

Since the borewells were provided and maintained by the line department, and MWS operated and maintained by the gram panchayat were public sources, they did not have the characteristic of 'excludability'. The World Bank program constructed piped water supply and provided water through private household connections and public stand posts. While the PHC held the characteristics of excludability, the PSP did not have such characteristic. These characteristics have a bearing on people's participation, collection of user fees and community ownership.

Staff was provided to each of the LOs of different types to undertake different tasks relating to tariff collection, undertaking minor and major repairs to the water supply sources, strengthening the capacity of the people in proper utilization of benefits, etc. The staff provided to different types of LOs was as follows.

The VWSCs formed under the IRWES program in Karnataka had access to a bookkeeper, a person to undertake minor repairs and collect tariff and NGO staff to strengthen the capacity of the people, motivate them to adopt environmental sanitation and provide health awareness. When the schemes were handed over to the gram panchayats for maintenance, the groups had access to the secretary of GP and watermen.

The gram panchayats in Karnataka, as noted earlier, were having 2-3 support staff. These were mostly bill collector (for tariff collection) and waterman to operate and maintain the MWS under the charge of gram panchayat.

The engineering department transferred to taluk panchayat was mandated to maintain the handpumps in the villages coming under the jurisdiction of taluk panchayat. The department had employed both technical staff (junior engineers) and support staff to maintain the borewells.

### *Equity in attendance at meetings*

The World Bank program introduced community participation from the planning stage to the final stage of owning the assets for operation and maintenance. In order to operationalise community participation, NGOs were assigned a facilitating role. The functions of NGOs were to create awareness about the need for potable water and environmental sanitation, and importance of community participation (in terms of capital contribution and involvement in the implementation). They also facilitated the formation of VWSC, which, as an executive committee on behalf of all the villagers, was assigned the functions relating to enabling the collective action in different project activities. Attendance at meetings in VWSC, according to the design, was

the key mechanism through which the participation of member households in project activities was to be achieved.

The responses from households on their attendance at VWSC meetings show that over two-thirds of households did not attend the meetings (Table 17). While the attendance was comparatively better in the case of project induced organizations, it was lower in the case of GP and line department. This was only to be expected because there was no mechanism to elicit people’s opinion in the case of line department provided water supply source of BWH. The responses of households that they sometimes attended the meetings should be understood as those cases where they attended gram sabha meetings to lodge a complaint on the functioning status of BWH. In the case of water supply sources managed by GP also, gram sabha was the main mechanism through which people could place the issues relating water supply availability. Interestingly, nearly 40 percent of the households stated that they attended the meetings of GP, and this should be understood as the cases where people attended gram sabha meetings not necessarily to raise the issues relating to water supply but, other issues such as selection for obtaining anti-poverty program benefits.

Table 17—Distribution of households (%) by attendance at meetings and type of LO in water supply and sanitation program

Type of LO	Attendance at Meetings			Total (N)
	Always	Sometimes	Never	
Project Initiated	12.50	29.17	58.33	240
GP	5.00	33.33	61.67	120
Line Department	4.17	20.83	75.00	216
Total	7.81	26.91	65.28	576

Surprisingly, the attendance at meetings of project induced LOs was also low. This could be attributed to the following.

- The general understanding in most of the villages was that the participation of the people means capital contribution. Once the households contributed towards construction costs, it was not expected from both implementers and people that there was any need to participate in the meetings.
- Halfway through the project implementation, the assets created under the World Bank project were transferred to the gram panchayats. Once the transfer was complete, it was the GP which took up the matters of water supply under the project. The GP did not involve the people unless there was a need.
- The transfer of assets created under the World Bank project to the GPs also contributed to the resurfacing of political rivalries in the village. In most of the villages, the political party controlling the VWSC was different from the one controlling GP. In the struggle for the control of assets and resources under the project, the issue of water supply was often politicized. This adversely affected the participation of households in the village water supply scheme in the following manner. Attendance at meetings and raising of issues were often interpreted as support or opposition to a particular political configuration in the village. This influenced those households, which wanted to maintain distance from political parties, and to keep away from meetings. Hence, many households were reluctant to participate.
- Women did not want to participate because the meetings were large in size and consisted mostly of men. Second, it was not considered proper for women from respectful families to attend the meetings. Third, they were also busy with household chores and livelihood activities.
- A few sample households stated that they wanted to attend the meetings; however, the meeting date and agenda were not often communicated in advance. Another response was that even if they attended the meetings, nothing would happen.
- After the transfer of assets to GP, many households did not even know the existence of the committee and its meetings.

Caste, landholding and poverty categories of the households can affect the attendance at meetings. Thus, the households were categorized into these three groups to assess the extent to which these variables affected the members' participation in the committee meetings. As can be seen from Table 18, a larger proportion of member households belonging to forward caste group attended the meetings regularly. The proportion of households not attending the meetings was comparatively high in the case of households belonging to scheduled and backward castes.

Table 18—Distribution of households (%) by attendance at meetings and caste in water supply and sanitation program

Caste	Attendance at Meetings			Total (N)
	Always	Sometimes	Never	
Scheduled Caste	5.45	19.39	75.15	165
Scheduled Tribe	4.88	36.59	58.54	41
Backward Caste	8.70	21.01	70.29	138
Forward Caste	10.71	35.71	53.57	168
Minorities	6.25	29.69	64.06	64
Total	7.81	26.91	65.28	576

Table 19 shows that the incidence of non-attendance at the meetings was more prominent among landless or less landholding members. In contrast, a larger proportion of the medium or large cultivators attended the meetings regularly. Since most of these households had representation in the management committees and had private household connections, they had something or the other to represent at the meetings. This explains better participation of households with larger landholdings in meetings.

Table 19—Distribution of households (%) by attendance at meetings and size of operational landholding in water supply and sanitation program

Size of Operational Landholding	Attendance at Meetings			Total (N)
	Always	Sometimes	Never	
No Land	4.59	21.94	73.47	196
< 1 acre	4.76	23.81	71.43	63
1 to 2.5 acres	8.11	32.43	59.46	74
2.5 to 5 acres	8.13	22.76	69.11	123
5 to 10 acres	13.79	32.76	53.45	58
10+ acres	14.52	41.94	43.55	62
Total	7.81	26.91	65.28	576

Table 20 on distribution of households by attendance at meetings and poverty ranks shows inverse relationship between the proportion of households attending the meetings and poverty, and corroborates that better-off households were participating at meetings.

Table 20—Distribution of households (%) by attendance at meetings and poverty rank in water supply and sanitation program

Poverty Rank	Attendance at Meetings			Total (N)
	Always	Sometimes	Never	
Very Poor	4.10	15.57	80.33	122
Poor	4.55	25.91	69.55	220
Medium	9.80	32.68	57.52	153
Wealthy	18.52	35.80	45.68	81
Total	7.81	26.91	65.28	576

The lower participation of poorer households at meetings can be explained in terms of mix of water supply sources and dependence of different socio-economic categories on them. In several villages, PWS, MWS and BWH sources provided water supply. While the better-off households depended on private household connections, the poorer households depended on public stand posts (under PWS), MWS and BWH. Since the former was characterized by excludability, it was easy for organizations operating and maintaining water supply sources in the village to impose and collect water user charges. The financial sustainability concerns gradually influenced the local organizations (VWSCs, gram panchayats and line department) to place more emphasis on the sources characterized by excludability in terms of maintenance and provision of new facilities. This adversely affected water supply through public sources, and those depending on these sources. This gradually resulted in the dissatisfaction among poorer households on organizations providing water supply and hence, their lower attendance in meetings.

*Equity in decision-making*

The variables to measure equity in decision-making in water supply and sanitation programs are the following: 1) the process of appointment of representatives of LO; 2) the process of arriving at important decisions; and 3) the poverty status of the decision-makers to find out whether the outcomes were pro-poor.

About 23 percent of the sample households did not know how the office-bearers were selected, and over 30 percent of them did not provide any response. Most of these responses came from the households depending on the line department and gram panchayat provided water supply sources. Although 35 percent of the households stated that members were largely involved in the selection of office-bearers, Table 21 suggests that influential members did play a role in the appointment of representatives.

Table 21—Distribution of Households (%) by participation in decision-making by organizational position in water supply and sanitation program

	To a Large Extent	Partially	Not at All	Do Not Know	No Response	Total (N)
<b>Who Appoints the Office-bearers of LO?</b>						
Members	34.90	4.17	8.85	22.22	29.86	576
Influential Member/s	2.08	10.42	31.94	25.52	30.03	576
Influential Non-members	0.17	1.91	41.49	26.22	30.21	576
<b>Locals Who Initiate the Organization</b>						
Become Leaders	0.87	3.99	37.15	26.39	31.60	576
GP	10.94	12.33	23.26	23.26	30.21	576
The NGO/SO Staff	1.22	5.21	39.58	22.92	31.08	576
<b>Who has the final say in important decisions (such as locating the water supply points and in fixing the user charges for water)?</b>						
Representative of LO	6.42	19.44	47.74	25.00	1.39	576
All the Members	23.44	13.37	38.19	23.09	1.91	576
Dominant Members in the Group	5.03	7.29	60.59	24.65	2.43	576
GP President	18.58	29.86	25.87	25.69	0.00	576
GP Dominant Members	9.03	19.79	43.40	25.87	1.91	576
Rural Elite	7.64	11.46	54.17	26.39	0.35	576
NGO/LD Staff	0.69	4.51	64.06	29.34	1.39	576
GP Secretary	9.90	0.00	79.69	10.42	0.00	576

It is also evident from Table 21 that key decisions such as fixing of water supply points and water user charges were either largely or partially influenced by influential members. Table 22 also supports this observation. All these suggest the elite capture of local organizations involved in water supply and sanitation.

Table 22—Distribution of households (%) by participation in decision-making by poverty rank in water supply and sanitation program

Who has the final say in important decisions (such as locating the water supply points and in fixing the user charges for water)?	Poverty Rank			
	Very Poor	Poor	Medium	Wealthy
Representative of LO	9.38	5.52	8.45	11.54
All the members	26.56	23.20	34.51	34.62
Dominant members in the group	1.56	8.29	7.04	3.85
GP president	18.75	19.89	28.17	24.36
GP dominant members	12.50	15.47	7.75	6.41
Rural elites	7.81	16.57	3.52	5.13
NGO/LD staff	0.00	0.55	0.70	2.56
GP secretary	23.44	10.50	9.86	11.54
Total	64	181	142	78

*Equity in the distribution of benefits*

The objective of the water supply programs was to provide adequate potable water to all the households in the village so that they traverse lesser distance. Historically, water was not easily available to the poor as most of the water supply sources were made available in the wealthy people's locality. But after the intervention of the state in the provision of water supply, steps were taken to implement schemes in the locality of poor households so that it might reduce the distance traveled by them as well as provide them with adequate and potable water. The LOs covered in the study were also working to achieve this objective. The households' perception on the project benefits in terms of decreased time to fetch water is, therefore, taken as one of the indicators of equity outcomes. The other two indicators are improved individual sanitary facilities and improved facilities of washing slabs, cattle trough, etc.

Table 23, which presents the distribution of households by their perception on the benefits received in terms of decreased time to fetch water by LOs, shows that most of the project-initiated sources were found to be providing adequate supply of water. Over 44 percent of the households obtaining water from GP initiated sources stated they experienced reduction in time after they started to depend on the water source.

Table 23—Households' perception (%) on the benefits in terms of decreased time to fetch water by LO type

LO Type	Benefits in Terms of Decreased Time to Fetch Water			
	Good	Adequate	Poor	Total (N)
Project-Initiated	41.67	30.42	27.92	240
GP	44.17	17.50	38.33	120
Line Department	38.43	26.85	34.72	216
Total	40.97	26.39	32.64	576

Tables 24 to 26 provide the distribution households by their perception on reduced time in fetching water and caste, landholding and poverty categories. Although a majority of the households belonging to all the caste categories found the sources to be 'good' and adequate in reducing the time spent to fetch water, the proportion of households dissatisfied with the sources was high in the scheduled tribe and minorities (Table 24). Across the caste categories, over one-fourth of households stated that the performance of water supply sources in reducing the time was poor. It may be noted that the households depending on public sources such as public stand posts, BWH, etc., did not find these to be reducing the time spent as the infrequent supply due to gross neglect in maintenance resulted in these households travelling long distance to fetch water.

Table 24—Households' perception (%) on the benefits in terms of decreased time to fetch water by caste

Caste	Benefits in Terms of Decreased Time to Fetch Water			
	Good	Adequate	Poor	Total (N)
Scheduled Caste	36.36	32.12	31.52	165
Scheduled Tribe	46.34	19.51	34.15	41
Backward Caste	44.20	26.09	29.71	138
Forward Caste	42.86	25.00	32.14	168
Minorities	37.50	20.31	42.19	64
Total	40.97	26.39	32.64	576

That the dissatisfaction levels were high among poorer households is borne out by information presented in Tables 25 and 26. One finds inverse relationship between satisfaction levels and economic (landholding and poverty ranks) categories. The data show that a larger proportion of households belonging to landless and marginal farmer categories, and very poor and poor categories stated that the performance of water supply sources was poor in reducing time spent to fetch water. The data, thus, suggest that it was the poorer categories which depended on public sources, and the infrequent supply of water from these sources resulted in travelling long distance and spending considerable time to fetch water.

Table 25—Households' perception (%) on the benefits in terms of decreased time to fetch water by size of operational landholding

Size of Operational Landholding	Benefits in Terms of Decreased Time to Fetch Water			
	Good	Adequate	Poor	Total (N)
No Land	33.67	32.14	34.18	196
< 1 acre	31.75	31.75	36.51	63
1 to 2.5 acres	45.95	25.68	28.38	74
2.5 to 5 acres	45.53	22.76	31.71	123
5 to 10 acres	46.55	18.97	34.48	58
10+ acres	53.23	17.74	29.03	62
Total	40.97	26.39	32.64	576

Table 26—Households' perception (%) on the benefits in terms of decreased time to fetch water by poverty categories

Poverty Categories	Benefits in Terms of Decreased Time to Fetch Water			
	Good	Adequate	Poor	Total (N)
Very Poor	31.97	32.79	35.25	122
Poor	34.09	26.36	39.55	220
Medium	49.02	24.18	26.80	153
Wealthy	58.02	20.99	20.99	81
Total	40.97	26.39	32.64	576

Provision of good sanitary facilities and clean drinking water are inter-linked. The second variable to assess the benefits in this sector was improved individual sanitary facilities. Tables 27 to 30 present the member households' perception on the receipt of this benefit. A majority of the households across all the three types of LO expressed dissatisfaction in so far as the receipt of benefits in terms of improved individual sanitary facilities were concerned. Among those households who stated that they had received good sanitary facilities, a relatively higher proportion belonged to line department induced LOs (Table 27).

Table 27—Households’ perception (%) on the benefits in terms of improved individual sanitary facilities by LO type

LO Type	Benefits in Terms of Improved Individual Sanitary Facilities			
	Good	Adequate	Poor	Total (N)
Project-Initiated	6.25	19.58	74.17	240
GP	5.00	23.33	71.67	120
Line Department	9.26	12.50	78.24	216
Total	7.12	17.71	75.17	576

Table 28 reveals only marginal differences when the sample households were categorized by caste. The important point that emerges from the table is that most of the scheduled caste and minority members reported poor performance, while about 11 percent of the forward caste members reported good performance.

Table 28—Households’ perception (%) on the benefits in terms of improved individual sanitary facilities by caste

Caste	Benefits in Terms of Improved Individual Sanitary Facilities			
	Good	Adequate	Poor	Total (N)
Scheduled Caste	5.45	16.36	78.18	165
Scheduled Tribe	7.32	17.07	75.61	41
Backward Caste	4.35	21.74	73.91	138
Forward Caste	10.71	16.67	72.62	168
Minorities	7.81	15.63	76.56	64
Total	7.12	17.71	75.17	576

The proportion of households stating that the performance of LOs was good and adequate in providing individual sanitary facilities declined as one moved along the size class of landholding. This implies that the large landholding categories benefited the most from programs providing individual sanitary facilities to households (Table 29). A similar picture emerges when one looks at the distribution of households by perceptions of LO performance in providing sanitary facilities and poverty categories in Table 30.

Table 29—Households’ perception (%) on the benefits in terms of improved individual sanitary facilities by size of operational landholding

Size of Operational Landholding	Benefits in Terms of Improved Individual Sanitary Facilities			
	Good	Adequate	Poor	Total (N)
No Land	7.65	14.29	78.06	196
< 1 acre	3.17	15.87	80.95	63
1 to 2.5 acres	9.46	13.51	77.03	74
2.5 to 5 acres	4.07	21.14	74.80	123
5 to 10 acres	8.62	22.41	68.97	58
10+ acres	11.29	24.19	64.52	62
Total	7.12	17.71	75.17	576

Table 30—Households' perception (%) on the benefits in terms of improved individual sanitary facilities by poverty categories

Poverty Categories	Benefits in Terms of Improved Individual Sanitary Facilities			
	Good	Adequate	Poor	Total (N)
Very Poor	4.92	15.57	79.51	122
Poor	5.91	13.64	80.45	220
Medium	9.15	20.92	69.93	153
Wealthy	9.88	25.93	64.20	81
Total	7.12	17.71	75.17	576

The third benefit examined in the water supply and sanitation projects is improved facilities of washing slabs, cattle trough, etc. It is a benefit with potentially greatest value for poor households as the poor usually have limited or no washing and cattle trough facilities within their homestead area. More than half of the respondents were dissatisfied with the provision of washing slabs and cattle trough facilities in the case of gram panchayats and line departments, while nearly 50 percent of the households members from the project-initiated LO felt adequate with the benefits (Table 31).

Table 31—Households' perception (%) on the benefits in terms of improved facilities of washing slabs, cattle trough, etc, by LO type

LO Type	Benefits in Terms of Improved Facilities of Washing Slabs, Cattle Trough, etc			
	Good	Adequate	Poor	Total (N)
Project-Initiated	16.25	49.17	34.58	240
GP	15.00	21.67	63.33	120
Line Department	20.83	25.46	53.70	216
Total	17.71	34.55	47.74	576

In none of the caste groups, the proportion of the households stating that their LO performed well was more than 25 percent. The members belonging to the minority group were significantly satisfied as compared to the scheduled caste and tribe groups (Table 32). The levels of dissatisfaction were high among the households belonging to scheduled castes and tribes, and to backward castes.

Table 32—Households' perception (%) on the benefits in terms of improved facilities of washing slabs, cattle trough, etc, by caste

Caste	Benefits in Terms of Improved Facilities of Washing Slabs, Cattle Trough, etc			
	Good	Adequate	Poor	Total (N)
Scheduled Caste	18.18	26.06	55.76	165
Scheduled Tribe	17.07	19.51	63.41	41
Backward Caste	12.32	36.96	50.72	138
Forward caste	22.62	39.29	38.10	168
Minorities	15.63	48.44	35.94	64
Total	17.71	34.55	47.74	576

Tables 33 and 34 show that the receipt of this benefit by the member households was not markedly different across the different categories of land ownership and poverty status of the sample households. However, about one-fourth of the landless households expressed greater satisfaction with the provision of this benefit (Table 33). Over 50 percent of the sample households belonging to different poverty categories had expressed that the performance of their LO was either 'good' or 'adequate' in the provision of improved facilities of washing slabs, cattle trough, etc (Table 34).



Table 33—Households' perception (%) on the benefits in terms of improved facilities of washing slabs, cattle trough, etc, by size of operational landholding

Size of Operational Landholding	Benefits in Terms of Improved Facilities of Washing Slabs, Cattle Trough, etc			
	Good	Adequate	Poor	Total (N)
No Land	25.00	28.57	46.43	196
< 1 acre	15.87	31.75	52.38	63
1 to 2.5 acres	10.81	39.19	50.00	74
2.5 to 5 acres	14.63	36.59	48.78	123
5 to 10 acres	13.79	43.10	43.10	58
10+ acres	14.52	38.71	46.77	62
Total	17.71	34.55	47.74	576

Table 34—Households' perception (%) on the benefits in terms of improved facilities of washing slabs, cattle trough, etc, by poverty categories

Poverty Categories	Benefits in Terms of Improved Facilities of Washing Slabs, Cattle Trough, etc			
	Good	Adequate	Poor	Total (N)
Very Poor	17.21	34.43	48.36	122
Poor	19.09	31.36	49.55	220
Medium	15.69	39.22	45.10	153
Wealthy	18.52	34.57	46.91	81
Total	17.71	34.55	47.74	576

*Summary of the findings on equity in attendance at meetings, equity in decision-making and equity in the distribution of benefits*

In the water supply and sanitation programs, a larger proportion of the households did not attend the meetings. The attendance was comparatively lower in the case of GP and line department. Significantly, a number of households did not even know the existence of the committee meetings. The proportion of households not attending the meetings was relatively high in the case of line department induced LO. The relatively more number of member households belonging to forward caste group attended the meetings regularly. The proportion of households not attending the meetings was comparatively high in the case of scheduled caste and backward caste group members. It was found that the incidence of not attending the meetings was more prominent in the case of landless or less landholding members. In contrast, a larger proportion of the marginal or large cultivators attended the meetings. A large proportion of the households either did not know how the office-bearers were appointed or they did not provide any response. Those who provided the responses implied that the decision-making process was controlled by the better-off sections in the village, and elite capture in the decision-making.

The benefits in terms of reduced time spent to fetch water were experienced by a large proportion of households across the LO categories. In contrast, the benefits in terms of improved individual sanitary facilities and washing facilities were not experienced by a majority of the households. The data show that the households belonging to larger landholding and wealthy categories were happier with their LOs in so far as the provision of these benefits as compared to poorer categories.

An important factor contributing to less participation of members at meetings, and inequity in development outcomes was the mix of water supply sources. For considerations of financial sustainability, the managers of rural water supply schemes gave preference to those water supply sources which were characterized by excludability so that they could collect water user fees. This resulted in gradual neglect of public sources on which a majority of the poor depended. This, in turn, led to reduced participation of the members belonging to poorer households. Since public water supply sources provided infrequent supply of water, the poor did not perceive benefits in terms of reduced time spent and improved individual sanitary facilities (water is the key for

installation and use of these facilities). Since washing facilities were generally installed in the localities where the better off resided, the poor also did not benefit from improved washing facilities.

## WATERSHED PROGRAMS

The KAWAD project was implemented in Bellary, Bijapur and Chitradurga districts in Karnataka. The criteria for district and block selection included incidence of poverty (SC/ST, agricultural laborers, marginal and small farmers, seasonal migration and female headed households), productivity of major crops and drinking water facility. The selection of watershed within a district was guided by the size (the watershed area to be at least 15,000 ha), and the presence of common lands (20 to 40 percent of the watershed area) for development. The presence of institutional strength in the form of NGOs was also an influencing factor in the district selection<sup>13</sup>. An important criterion for implementing the DDP, DPAP, and NWDPRAs projects was non-coverage or inadequate coverage of area with watershed projects.

As far as the criteria for village selection was concerned, since the projects of DDP, DPAP and NWDPRAs were to be implemented in all the villages in phases, no criteria were used. Prior to the selection of NGOs for the implementation of KAWAD project, the watershed area and the villages falling within a watershed were selected. Thus, the village selection was guided by the choice of sub-watershed. Our own data show that the sample villages covered by KAWAD tended to be backward, and consisted of SC/ ST and poorer households.

In all, the study found 38 local organizations in the sample villages. All the programs, except NWDPRAs, formed the micro-watershed committees in the villages, during 1999–2001. How did the households get selected for the committee and receipt of watershed benefits? Each of the programs stipulated selection criteria in the program design. The process suggested in the project design was, however, different from the one adopted for group formation and household selection across the three types of programs.

As per the design, the NGOs would initiate the group formation in KAWAD villages. The NGO workers would identify the households (through participatory methods), motivate the farmers to have their own organization and form SHGs among them. After the groups functioned for some time, the ideas on watershed were to be shared with them. The groups would be encouraged to elect a couple of representatives for a watershed committee to be formed in the village. The NGO would then facilitate a process wherein the farm problems of member households analyzed, needs in terms of watershed and non-land based activities identified and proposals on implementation of activities with people's participation prepared. At the same time, the watershed committee was to be formed, and plans emerging from individual SHGs were to be consolidated for the entire watershed area. The consolidated plan, along with the list of beneficiaries and watershed committee composition, was to be placed before the gram sabha<sup>14</sup> for the approval. There was a hiatus between the design and actual method, and three patterns were observed.

- In all the villages the SHGs were formed. The focus group discussions showed that the SHGs did, in fact, suggest the representatives for the MWSDC. In most of the villages, gram sabha meetings could not be conducted as the NGOs or SHGs did not have control over the functioning of gram panchayats. As a result, the watershed committees could not be formed in quite a few villages. KAWAD (2002: 181) had to change the guidelines and the very function of gram sabha from that of approval to receiving only information. Thus, in many villages, the local elected bodies did not approve either the watershed committee composition or the watershed development plans.
- The formation process adopted by some of the NGOs was not rigorous. While SHGs were formed, the tasks on situation analysis, needs assessment and preparation of action plans were not carried out with the same rigor as was visualized in the design.

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<sup>13</sup> One official, on condition of anonymity, noted that in the context where political influence in the district and block selection was pervasive, one could not always stick to the criteria.

<sup>14</sup> The village assembly that was provided with substantial powers in the 73<sup>rd</sup> Amendment to the Constitution.

- It was the NGO staff that selected the households for receiving benefits. According to the sample households, the book writer (NGO staff) met the households individually to ascertain whether they were willing to join the group and whether they were in a position to contribute towards watershed activities.

The question of selecting the beneficiaries did not arise as the approach followed in the line department programs was 'ridge to valley'. All the lands and the households owning such lands in a watershed were covered, and asked to contribute towards undertaking of watershed activities. In case they failed to contribute, the outside chances of excluding such households existed.

The distribution of LOs by the number of households benefiting from the watershed activities shows that over half of the KAWAD groups covered less than 50 households. We could not, however, obtain information from most of the line department groups in this regard.

Every watershed group has formed a committee, the members of which ranged from 5 to 15. Most of the committees consisted of either 9–11 or more than 12 members. The detailed information on the background of members shows that there was representation from different caste groups in KAWAD committees. The watershed committees formed as a part of line department programs in Karnataka had larger representation from backward and forward castes. The SC/ ST members consisted of only 12.5 percent of all the members of the group. The representation of women was about 35 percent in the committees of KAWAD, while it was 42 percent in the committees of line department groups.

A discussion on socio-economic homogeneity assumes importance as it has been suggested in the writings of several scholars (for instance Olson 1965, Ostrom 1990 and Baland and Platteau 1996) that this would affect collective action in a group. The KAWAD and line department groups were characterized by a great degree of variation in social homogeneity. In over one-third of the KAWAD groups, the proportion of SC/ ST households was less than 25 percent. In one-third of the groups, the proportion was more than 50 percent. The smaller presence of SC/ ST households, together with the higher Gini ratio on landholdings, suggests that most of the KAWAD groups did not achieve socio-economic homogeneity. The social and economic heterogeneity in a significant proportion of the groups provides the credence to qualitative information that the selection procedure stipulated in the program design was not strictly followed in practice.

### *Equity in attendance at meetings*

The percentage of members attending the watershed committee meetings was generally low (Table 35). The proportion of households attending the meetings of the watershed committees formed by the line department was relatively higher than that in project-initiated. An important reason cited for not attending the watershed committee meetings was perceived as lack of membership in these committees.

Table 35—Distribution of households (%) by attendance at meetings and type of LO in watershed programs

Type of LO	Attendance at MWSDC/VDC Meetings			Total (N)
	Always	Sometimes	Never	
Project Initiated	24.62	19.56	55.82	455
Line Department	33.93	20.54	45.54	112
Total	26.46	19.75	53.79	567

The proportion of member households attending the meetings was also worked out by caste, landholding and poverty categories to see whether these variables had any influence on attendance in the watershed committee meetings by the sample households. The same has been presented in the Tables 36 to 38.

About 46 percent of the households of minority community had always attended the MWSDC meetings. It can be seen from the table that a majority of the households belonging to forward caste, scheduled tribe and scheduled caste, in that order, had never attended the meetings. Occasional presence in the meetings by about 28 percent of the households belonging to backward castes was noticed (Table 36).

Table 36—Distribution of households (%) by attendance at meetings and caste in watershed programs

Caste	Attendance at MWSDC/VDC Meetings			Total (N)
	Always	Sometimes	Never	
Scheduled Caste	26.92	16.67	56.41	78
Scheduled Tribe	27.74	14.60	57.66	137
Backward Caste	31.51	28.08	40.41	146
Forward Caste	20.31	18.75	60.94	192
Minorities	46.15	15.38	38.46	13
No Information	0.00	0.00	100.00	1
Total	26.46	19.75	53.79	567

Interestingly, a larger proportion of landless households had always attended the watershed committee meetings. The next significant presence in the MWSDC meetings was by the large cultivators (Table 37).

Table 37—Distribution of households (%) by attendance at meetings and size of operational landholding in watershed programs

Size of Operational Landholding	Attendance at MWSDC/VDC Meetings			Total (N)
	Always	Sometimes	Never	
No Land	38.89	5.56	55.56	36
< 1 acre	0.00	11.11	88.89	9
1 to 2.5 acres	17.07	24.39	58.54	41
2.5 to 5 acres	25.95	17.72	56.33	158
5 to 10 acres	21.57	24.84	53.59	153
10+ acres	32.35	19.41	48.24	170
Total	26.46	19.75	53.79	567

The attendance at the watershed committee meetings was mostly confined to the wealthy households. A majority of the poorer households had never attended the meetings. Reasonably, a good number of households belonging to middle and wealthy categories had attended the watershed committee meetings occasionally (Table 38).

Table 38—Distribution of households (%) by attendance at meetings and poverty categories in watershed programs

Poverty Category	Attendance at MWSDC/VDC Meetings			Total (N)
	Always	Sometimes	Never	
Very Poor	18.39	17.24	64.37	87
Poor	24.24	18.79	56.97	165
Middle	28.57	20.20	51.23	203
Wealthy	32.14	22.32	45.54	112
Total	26.46	19.75	53.79	567

### *Equity in decision-making*

Attendance at the meetings does not necessarily mean that members participate in decision-making. It is, therefore, important to analyze their involvement in decision-making in the local organizations to get an insight into who is influencing and making key decisions. Key decision-making issues (appointment of office-bearers and final say on the location of assets created) have been examined below.

In the watershed programs, the levels of knowledge of decision-making were far higher than the water supply and sanitation programs. Households benefiting from project-initiated and the line department programs stated that the members and the staff appointed leaders to their groups. However, a significant proportion of households stated that there was partial involvement by the influential members in the appointment of leaders to their groups (Table 39).

Table 39—Distribution of households (%) by participation in decision-making and organizational position in watershed programs

	To a Large Extent	Partially	Not at All	Do Not Know	No Response	Total (N)
<b>Who appoints the representatives of LO?</b>						
Members	93.30	3.00	2.12	1.23	0.35	567
Influential members	0.88	12.87	83.42	2.47	0.35	567
Influential non-members	0	0.88	96.30	2.47	0.35	567
Locals who initiate the organization become leaders	0.18	2.12	94.53	2.82	0.35	567
NGO/LD staff	5.64	45.86	45.86	2.29	0.35	567
<b>Who has the final say in important decisions (such as deciding the location of checkdams, etc)?</b>						
Representatives of LO	20.99	34.92	43.56	0.00	0.53	567
All the members	73.02	9.35	17.11	0.00	0.53	567
Dominant members in the LO	1.41	10.58	87.48	0.00	0.53	567
High-caste and rich people outside the LO	0.18	0.18	98.77	0.35	0.53	567
GP president	0.00	0.53	98.59	0.35	0.53	567
NGO/LD staff	13.58	33.51	52.38	0.00	0.53	567
Do not know	1.06	0.18	98.77	0.00	0.00	567
No response	0.18	0.18	99.65	0.00	0.00	567

More or less a similar picture emerged from the households' responses on who took the key decisions such as location of checkdams and selection of activities and beneficiaries. A large proportion of the sample households stated that members had a final say in key decisions. The next key decision maker was NGO/LD staff. NGO staff taking decisions was not considered wrong as NGOs controlled funds and other project equipment (Table 39). Table 40 shows that there was no significant variation across the wealth categories in so far as their responses on who took key decisions, except that a larger proportion of very poor and poor households stated that LO representatives were the key decision-makers (Table 40).

Table 40—Distribution of households (%) by participation in decision-making and poverty rank in watershed programs

Who has the final say in important decisions (such as deciding the location of checkdams, etc)?	Poverty Categories			
	Very Poor	Poor	Middle	Wealthy
Representatives of LO	24.5	23.2	14.4	17.1
All the members	65.7	60.8	69.8	70.1
Dominant members in the LO	0.0	1.7	1.4	1.7
High-caste and rich people outside the LO	0.0	0.0	0.5	0.0
GP president	0.0	0.6	0.9	0.0
NGO/LD staff	9.8	13.8	13.1	11.1

### *Equity in distribution of benefits*

In watershed programs, the equity in the provision of benefits was assessed on the basis of LO's performance in the prevention of soil erosion and water loss and improvements in agricultural production.

Table 41 points out that a majority of the sample households termed the performance of LOs in the prevention of soil erosion and water loss as good. The performance of project-initiated LOs in preventing soil erosion and water loss was stated to be better than that of the line department.

Table 41—Households' perception (%) on their LO's performance in preventing soil erosion and water loss by LO type

Type of LO	Prevention of Soil Erosion and Water Loss				Total (N)
	Good	Adequate	Poor	No Information	
Project-Initiated	73.63	14.51	7.91	3.96	455
Line Department	42.86	12.50	35.71	8.93	112
Total	67.55	14.11	13.40	4.94	567

Tables 42 to 44 present members' perception on the performance of LO in preventing soil erosion and water loss by caste, size of operational landholding and poverty ranks.

A large proportion of the respondents across all the different caste groups stated that the performance of their LOs in preventing soil erosion and water loss was either good or adequate (Table 42).

Table 42—Households' perception (%) on their LO's performance in preventing soil erosion and water loss by caste

Caste	Prevention of Soil Erosion and Water Loss				Total (N)
	Good	Adequate	Poor	No Information	
Scheduled Caste	67.95	12.82	15.38	3.85	78
Scheduled Tribe	65.69	14.60	15.33	4.38	137
Backward Caste	69.18	15.07	10.96	4.79	146
Forward Caste	67.71	13.02	13.54	5.73	192
Minorities	61.54	23.08	7.69	7.69	13
No Information	100.00	0.00	0.00	0.00	1
Total	67.55	14.11	13.40	4.94	567

The distribution of households by their responses on the performance of LOs in the prevention of soil erosion and water loss by landholding categories shows that a larger proportion of households with large landholding stated that the performance was good or adequate (Table 43).

Table 43—Households' perception (%) on their LO's performance in preventing soil erosion and water loss by size of operational landholding

Size of Operational Landholding	Prevention of Soil Erosion and Water Loss				Total (N)
	Good	Adequate	Poor	No Information	
No Land	2.78	8.33	50.00	38.89	36
< 1 acre	66.67	22.22	11.11	0.00	9
1 to 2.5 acres	65.85	17.07	14.63	2.44	41
2.5 to 5 acres	63.92	17.72	15.19	3.16	158
5 to 10 acres	77.78	11.76	7.19	3.27	153
10+ acres	75.88	12.94	9.41	1.76	170
Total	67.55	14.11	13.40	4.94	567

When we look at the poverty categories, the poorer households were more dissatisfied with the LO performance than the wealthiest households. Nearly two-third of the households from the middle and wealthy categories of poverty felt that the performance of LO was good, while only about 50 percent of the households

belonging to very poor category expressed satisfaction with the LO performance in preventing soil erosion and water loss (Table 44).

Table 44—Households' perception (%) on their LO's performance in preventing soil erosion and water loss by poverty categories

Poverty Categories	Prevention of Soil Erosion and Water Loss				Total (N)
	Good	Adequate	Poor	No Information	
Very Poor	50.57	11.49	25.29	12.64	87
Poor	62.42	16.97	16.36	4.24	165
Middle	73.89	13.79	9.36	2.96	203
Wealthy	76.79	12.50	7.14	3.57	112
Total	67.55	14.11	13.40	4.94	567

Tables 45 to 48 focus on the benefit of improved agricultural production through input use and technology. It is evident from Table 45 that the higher proportion of households had expressed greater satisfaction with the performance of project-initiated LOs in improving agricultural production.

Table 45—Households' perception (%) on their LO's performance in improving agricultural production by LO type

LO Type	Improvements in Agricultural Production				Total (N)
	Good	Adequate	Poor	No Information	
Project-Initiated	45.49	35.60	14.73	4.18	455
Line Department	27.68	16.07	47.32	8.93	112
Total	41.98	31.75	21.16	5.11	567

When the results were further segregated by caste categories, the households belonging to backward and scheduled castes had the most positive assessment on the performance of LOs in improving agricultural production (Table 46).

Table 46—Households' perception (%) on their LO's performance in improving agricultural production by caste

Caste	Improvements in Agricultural Production				Total (N)
	Good	Adequate	Poor	No Information	
Scheduled Caste	47.44	25.64	20.51	6.41	78
Scheduled Tribe	38.69	32.85	24.09	4.38	137
Backward Caste	48.63	27.40	18.49	5.48	146
Forward Caste	37.50	36.46	21.35	4.69	192
Minorities	38.46	30.77	23.08	7.69	13
No Information	0.00	100.00	0.00	0.00	1
Total	41.98	31.75	21.16	5.11	567

When the sample households were categorized as per the size of the landholding, landless households and marginal landholders were least satisfied with the performance of LOs in improving agricultural production. About 50 percent of the landless households felt that the LO performance was poor in contrast to the perceptions of large landholding households whose statement was the other way round (Table 47).

Table 47—Households' perception (%) on their LO's performance in improving agricultural production by size of operational landholding

Size of Operational Landholding	Improvements in Agricultural Production				Total (N)
	Good	Adequate	Poor	No Information	
No Land	0.00	8.33	50.00	41.67	36
< 1 acre	33.33	55.56	11.11	0.00	9
1 to 2.5 acres	43.90	31.71	19.51	4.88	41
2.5 to 5 acres	39.87	34.18	23.42	2.53	158
5 to 10 acres	50.33	28.76	17.65	3.27	153
10+ acres	45.29	35.88	17.06	1.76	170
Total	41.98	31.75	21.16	5.11	567

The households falling in the poverty categories of very poor and poor expressed most dissatisfaction with the performance of LOs in improving agricultural production, while the perception of middle and wealthy households was positive in relation to the LO performance in improving agricultural production (Table 48).

Table 48—Households' perception (%) on their LO's performance in improving agricultural production by poverty categories

Poverty Categories	Improvements in Agricultural Production				Total (N)
	Good	Adequate	Poor	No Information	
Very Poor	28.74	29.89	26.44	14.94	87
Poor	36.97	32.12	26.67	4.24	165
Middle	49.26	28.57	19.21	2.96	203
Wealthy	46.43	38.39	12.50	2.68	112
Total	41.98	31.75	21.16	5.11	567

*Summary of the findings on equity in attendance at meetings, equity in decision-making & equity in distribution of benefits in watershed programs*

In watershed programs, the percentage of members attending the watershed committee meetings was generally low. The proportion of households attending the meetings of the watershed committees formed by the line department was relatively higher than that in the project-initiated groups.

A majority of the households belonging to minority community had always attended the MWSDC meetings. It was also noted that a majority of the households belonging to forward caste, scheduled tribe and scheduled caste, in that order, had never attended the meetings. Occasional presence in the meetings by a small proportion of households belonging to backward castes was also noticed. Interestingly, a large proportion of landless households and large cultivators had always attended the watershed committee meetings. A majority of the poorer households had never attended the meetings, while a large number of wealthy households had attended the meetings regularly.

In the watershed programs, the levels of knowledge of decision-making were far higher than the water supply and sanitation programs. Households benefiting from project-initiated and the line department programs stated that the members and the staff appointed leaders to their groups. However, partial involvement by the influential members in the appointment of leaders to their groups was also noticed.

More or less similar picture emerged from the households' responses on who took the lead in key decisions such as location of checkdams and selection of activities and beneficiaries. In terms of key decisions, all the members were largely dominating. It was found that the LO representatives too had a final say in the important decisions. NGO staff also took decisions and this was not considered to be wrong as NGOs controlled funds and other project equipment. Fewer middle and wealthy households were more aware of the decision procedure than the poorer households.



In watershed programs, the performance of project-initiated LOs in preventing soil erosion and water loss and in improving agricultural production was better than the line department. More than half of the respondents across all the different caste groups felt that the situation of soil erosion and water loss had improved with the intervention of the LOs. The households belonging to backward and scheduled castes had the most positive assessment on the performance of LO in improving agricultural production. When the sample households were categorized as per the size of the landholding, landless households and marginal landholders had the lowest assessments of performance of LOs not only in preventing soil erosion and water loss but also in improving agricultural production. The poorer households were more dissatisfied with the LO performance in preventing soil erosion and water loss and in improving agricultural production than the wealthiest households. The households belonging to very poor category received least benefit from the watershed program.

#### 4. DISCUSSION AND CONCLUSIONS

A high degree of equity in the distribution of loans was found in women development and empowerment projects. Repeat loans were more often taken by the Muslims and lower-caste groups, smaller cultivators, and poorer—but not the very poorest—households. In the drinking water and sanitation sector, on the other hand, households falling in the wealthiest quartiles were likely to attend the meetings and to be those most satisfied with the provision of clean drinking water and sanitation facilities—indicating a small, but statistically insignificant, bias toward the wealthy. In the watershed development sector, scheduled castes and forward castes had the least positive assessments of benefits related to preventing soil erosion and water loss. Landless people and marginal and small cultivators had the lowest assessments of performance when sample members were categorized according to operational holding. The very poor received the least benefit in this sector. The women development and empowerment projects were initiated only for women, while the other two projects focused on every one. Thus, while benefits provided by the women's groups tended to promote equity by favoring poorer and socially marginal members, the water/sanitation and watershed management projects tended, at best, to be equitable with respect to all members. In a number of instances they appeared to favor the higher-caste groups and wealthier members.

Do the presence of women alone contributed to equitable benefits in women development and empowerment projects? The answer is yes and no. The women in the groups formed under these projects, by and large, complied with institutional rules relating to attendance at meetings, contribution of savings, borrowing and repayment. More importantly, socio-economic homogeneity and small size of the groups contributed positively to the participation of members in the meetings and decision-making. Thus, these groups functioned more effectively as interest groups.

It should not be concluded that the mere presence of women will contribute to equity outcomes. Certain institutional factors also contributed to the equity outcomes. For instance, homogeneity, small size and compliance of institutional rules were some of the institutional features, which played a significant role in the success of women development and empowerment groups in achieving equity outcomes. Further, the program was based on the principle that benefits from the group were based on savings contribution, regular attendance and repayment of previous loan.

These institutional features were absent in the other projects. For instance, water supply projects believed that all persons in a village – men and women belonging to different castes and wealth groups – come together to represent their interests in the general assembly. The programs did not form smaller interest groups consisting of women, landless laborers, small and marginal farmers and so on. In the absence of formation and functioning of such small interest groups, the people who attended the meetings were only men who had some interest to represent. Similarly, when the local organizations in this sector were focusing on private household connections at the cost of public water supply sources, there was no representation from the poorer sections, which depended on public sources. This was precisely because there were no mechanisms for these sections including women to represent their interests. In the absence of such mechanisms, the poor expressed both silent and angry protests. In a few villages covered by the World Bank project on water supply, the poor

households destroyed the pipes supplying water to the private household connections owned by the wealthy as water supply to them was adversely affected due to spread of private household connections.

The linking of benefits with contributions resulted in inequitable benefits in watershed project initiated by the bilateral agency of DfID. The contributions for land development works were very high, and the assistance was directly proportional to the contributions. This resulted in cornering benefits by larger landholders in this project area. This suggests that the institutional rules linking participation with benefits would work only when the people's organizations were very well developed into strong and vibrant interest groups representing and protecting their interests.

Another important finding is that when benefits provided under the project were significant to large in monetary terms (such as watershed), the better-off were likely to capture the groups not only in membership but also decision-making positions. They would not allow women and other weaker sections to occupy leadership positions and undertake their functions effectively.

To conclude, although the evidence in this paper shows that equity outcomes tend to be better in women groups, it should be remembered that institutional factors should also be favorable for women and other disadvantaged groups to play their role as both members and decision makers effectively to achieve equity outcomes.

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