

Paper for: Thirteenth Biennial Conference of the International Association for the Study of Commons (IASC) on 'Sustaining Commons: Sustaining our Future' at Hyderabad, India, January 10-14, 2011.

Sub-themes: The Commons, Poverty and Social Exclusion

Governance of the Commons: Decentralization, Property Rights, Legal Framework, Structure an Organization

ABSTRACT

Title: Does lead role of women in local forest governance guarantee gender equity in costs and benefits from forests? A study of four case studies from Vidarbha Region in Maharashtra

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Joint Forest Management (JFM) program in India, introduced in 1990, identified women as important stakeholders but subsequently their participation in decision-making was found to be nominal. Most of the JFM Committees (JFMCs) were headed by men and women held membership positions that had no powers. Successive revisions, evolutions and changes in JFM opened opportunities for women to head the JFMCs and thus provided more power to women in decision-making than before. However, has this resulted in better gender equity? The paper explores whether women-headed JFMCs have been able to ensure better participation of women than those headed by men and does this reflect in equity in gender-based distribution of costs and benefits from forests.

A comparison across four case studies from Vidrabha region in Maharashtra state is done, where two women-headed JFMCs and two headed by men were studied using methods like household survey, group discussions and researchers' observation.

The case studies bring out the fact that participation of women, gender-equity in cost and benefits from forests and health of a forest institution are linked. A forest institution worked efficiently where active participation of women was found. It also reflected in higher benefits and lower costs to women from forests as compared to women in villages where forest institutions were inefficient. However, it was found that mere policy support for lead role of women in forest protection institutions does not lead to either overall active participation of women in forest governance or to gender-equity in distribution of costs and benefits from forest. Building leadership capacities in women and awareness in communities is very important before women are handed lead positions as they still have to face cultural constrains and hostilities. Positive, rigorous, and constant intervention of gender-supportive NGOs as well as the forest department is very essential in facilitating an effective role of women in forest management.

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Keywords: *Gender, leadership, costs, benefits, participation, JFM, Vidarbha, India*
Does lead role of women in local forest governance guarantee gender equity in costs and benefits from forests? A study of four case studies from Vidarbha Region in Maharashtra³

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1. INTRODUCTION

Natural resources like forests in India have been a major source of subsistence and livelihood for the millions of people dependent on it. Consequently, its rapid degradation raised alarm about the resulting poverty among the forest-dependent people, especially women and landless. To address the issue decentralization in local governance was introduced in 1990's. The agenda was identification of various stakeholders and system to address their needs so as to ensure sustainability of local resources like forests, integrated rural development, and sustainable development of the country. Women were identified as important stakeholders and their right to participate in decision-making in local development was reserved through various legislations. This was based on two facts. One, that women have an important role to play in rural economy and have higher dependence on natural resources like forests to meet their income and subsistence needs. And second, they face cultural constraints in a patriarchal society like India to actively participate in decision-making. However, initial studies on costs and benefits to women from decentralized programs like JFM pointed out higher costs to women than men (Agarwal 2000, Sarin 1995a), as participation of women in decision-making remained nominal or partial. Most of the local-level Joint Forest Management Committees were headed by men and despite reservations in decision-making bodies women held membership positions that had no powers. Subsequent revisions in guidelines of programs like JFM instructed rotation of important posts between men and women, thus opening opportunities for women to head the local level institutions, with the idea of larger impact on active participation of women. It has been 18 years since decentralization has been in practiced in India and has seen evolution and changes which has provided more power to women in decision-making than before. It thus becomes important to find if the evolution/changes in legislations has facilitated better participation of women with positive implications on distribution of costs and benefits for them from natural resources like forests.

2. GENDER AND FORESTS

Forests are not only a major source of raw material to key industries, but development of agriculture also depends on forests for its large agrarian population. Higher forest-dependence is largely among the poorer section of the rural communities (Kumar 2002). As per estimates of forest dependence between 1982 and 1985, the dependence of poor households was found to be between 9 to 20 percent, while it was only between 1 to 4 percent for the non-poor (Jodha 1986).

³ I would like to thank GIDR for funding (through ICSSR) the research project on which this paper is based. I would also like to thank Dr. Rucha Ghate of SHODH for providing her valuable inputs during the research. The study wouldn't have been possible without all those women of the villages who spared their precious time to answer the volley of questions that I put at them. I am extremely grateful to them.

However, the variations in forest dependence are not only based on class but gender too.

Gender has been defined as socially established ideas and practices of what it is to be female or male (Pandolfelli *et. al.* 2007b). These ideas and practices have been influenced by culture, political environment, legal and governance structures, markets, and religion. But across all cultures women have played the reproductive role and have handled household chores, where as men have been handlers of productive activities like earning (Pandolfelli *et. al.* 2007b). It is in this gendered role that forests come to play an important role in the lives of rural women, as they depend on forests to meet the needs of the household. Consequently, their dependence on forests is more than men. Studies have pointed out that poor women obtain 33 to 45 percent of their income from forest and common land which is 13 percent for men (FAO 1991, Martin, undated). In terms of extractions from forest, a division of labour exists between men and women. While men do more labourious work like cutting of timber, women concentrate on NTFP collection, fodder, and fuelwood. Consequently, men and women have a difference in knowledge about forest resources (Gurung *et. al.* 2000). It is women who are credited with more extensive knowledge about forests. Tribal women in India have been found to know medicinal uses for almost 300 forest species (Martin, undated).

Thus, women are an important link between forest and forest-based well-being of household's. Consequently, policies that have an effect on access to and condition of forest not only have an affect on the well-being of women but their households too.

3. GENDER PARTICIPATION IN FOREST MANAGEMENT – COSTS, BENEFITS, AND CONSTRAINTS

Participation is important as a measure of citizenship rights and as a form of empowerment and voice (Agarwal 2001). Women's participation in forest management is considered significant not only from the point of view gender equity and its implications on well-being of women but also for the success of forest management (Orga undated). There are two reasons for the significant affect of women's participation on forest management. First, women are the main users of forests, and secondly, "lack of participation of a large number of the users of a resource would lead to performance weaknesses in the organization, because of weaknesses in communication, representation, democracy and accountability, which may lead to free riding, rent seeking and corruption" (Ostrom, 1992). This is likely to happen due to improper flow of information about rules to women which may cause the problem of rule enforcement. Additionally problems like inaccurate assessment of resource depletion are likely to arise if women are excluded, as they are more familiar with forest conditions than men. There can be problems in catching transgressors especially women, conflict resolutions may have male bias (Agarwal 2000, Agarwal 2010), non-incorporation of women's specific knowledge of species-varieties (Sarin and Khanna 1993), ignorance of plantation of plant species preferred by women (Agarwal 2000) etc. Case studies have brought out the fact that women's participation has been helpful in better adherence to institutional rules as well as leading to better transparency in working of institutions (Pandolfelli *et. al.* 2007b, Manadhar 2005 as sited in Acharya 2006). It also leads to more conflict-resolution.

Women tend to be more cooperative (Westermann *et. al.* 2005) and better conservationists than men (Agarwal 2000). Studies have pointed out that participation of women in forest protection committees, meetings and forest protection, has led to 25 percent higher control on illicit grazing than in communities where women do not participate in these activities (Agrawal *et. al.* 2006).

Participation of women in lead positions is said to have positive effect on the health of the institution as well as on distributional equity. Sighting case studies from Nepal, Acharya 2006 has seen that majority of women in decision-making positions are interested in governance, equity, and poverty reduction, there is better forest protection due to ban on anti-forest activities, they bring in changes in the discriminatory social practices too, and there is improvement in education. Similarly, incorporation of forest-based interests of women and their increased participation leads to increased food security of the households, better employment opportunities and household income, health of families, etc.

However, well-being of women is sacrificed due to their poor participation in decision-making. In many community-forestry programs it has been found that rules of forest-use formed by men have been too restrictive, resulting in larger burden on women as they have to spend more time on collection of forest products (Pandolfelli *et. al.* 2007b) or use inferior substitutes, stall feed animals, lose income earlier obtained from selling forest products (Agarwal 2000) etc. Places where agriculture is an important occupation for women due to high out-migration of men, decline in income from agriculture is a result of more time spent by women in collecting forest products for subsistence needs. Resource degradation also forces women to bear costs like walking longer distances, going to forests within boundary of other villages, constant fear of being caught by the guards, loss of pride/dignity when reprimanded by the guards, bribes that they have to pay to the guards to get the seized products released, etc (Mehra 2009, Orga undated). In addition, there are safety issues that women have to face when they travel longer distances and on risky terrain in order to fetch forest products (Orga undated).

There are many factors that act as constraints in the participation of women in decision-making in the Indian social set-up. They face seclusion not only on the basis of their gender but also on caste and class basis (Gupte 2004). This makes it difficult for women to participate even when they are formally included. In various participatory programs group membership is limited to one member per household and that means that only men of the household participate. Even if women get a chance to participate, their level of participation is much lower than that of men (Pandolfelli *et. al.* 2007b). Social norms like *purdha*, restrictions on speaking in front of senior male members of the family, not being allowed outside the household, not sitting among men but at a distance which makes them less visible and audible makes it difficult for women to participate effectively. Many a times women are hesitant to participate or do not participate as men come in inebriated condition to the meetings. Fear is also a disincentive to participate. Even if they want to participate they might fear of being reprimanded by their spouse (Orga undated). As women are considered inferior to men, their suggestions are not considered (Agarwal 2000, Orga undate). Many times women are not informed about the meetings. Officials (who are mostly men) also carry a bias towards women, which also acts as a hurdle in participation of women.

Differences in preferences or motivations between men and women also determine their participation (Pandolfelli *et. al.* 2007b). Women have high opportunity cost. As a result as long as they do not see major benefits to them from participation they are not motivated to participate. Men are likely to take up activities that are more towards enhancing income like plantation of species that are likely to fetch income. In comparison women might take up plantation of species that meet the household needs. Plus women are likely to keep rules of use less strict than men in order for people to have better access to subsistence needs like fuel wood and fodder. Also women feel constrained when they have to do something on a regular basis as this interferes with their household chores.

On the other hand, there are factors that can facilitate women's active participation such as all-women groups, presence of gender-progressive NGOs, policy back up, etc. Policy backup has been provided to women for creating a critical mass in terms of reservations in forest protections committees and other local governance institutions (Agarwal 2010). Thus, decentralization has been considered one such tool that is likely to increase women's participation in public sphere (Pandolfelli *et. al.* 2007b).

4. LEGISLATIVE CHANGES FOR WOMEN'S PARTICIPATION UNDER DECENTRALIZATION

Scholars have recognized that social and political barriers, as well as the pre-existing advantages that men as a gender enjoy in terms of greater access to economic resources and public decision-making (Agarwal 1997) need to be addressed through policy in order to ensure greater space for women to participate. In forest management, policy makers realized that clear-cut guidelines for role of women in decision-making will have to be laid down for JFMCs for women to get the benefits of the program. In year 2000 (revised in 2002) JFM guidelines were issued that specified the rights of women. 33 percent of the membership of the decision-making body and 50 percent of the general body membership of the JFMC were reserved for women. Additionally it was also specified that "one of the posts of the office-bearers, i.e. President/ Vice-President/ Secretary should be filled by a female member of the Committee" (No.22-8/2000 JFM (FPD)).

JFM as a rural development program is no longer new to the implementers as well as the local communities as it has been introduced in 28 states, covering a forest area of over 173 million hectares under 84,000 Forest Protection Committees (http://www.rupfor.org/jfm_nationalScenario.asp). Program to route poverty alleviation programs through JFMCs has been executed through a federation of JFMCs under a Forest Development Agency (FDA) to oversee integrated development of villages. Rights of women in the decision-making units of FDA have been ensured. Women have reservation in the two-tier governing bodies, that is, the FDA and JFM committees. Thus, at every step of evolution of decentralization and its expected role in development, rights of women to participate in decision-making have been taken care of. Leading role of women as Sarpanch or head of JFMCs has been stipulated. However, have these policy measures led to better participation of women? Do women-headed local-governance institutions facilitate overall effective participation of women in governance of local resources like forests as compared to those that do not have women in lead positions of governance? Does this indicate

towards better equity in benefits and costs for women in villages that have women-headed JFMC as compared to those that have male headed forest governance institutions? Does women's active participation reflect in the health of the forest governance institution? Answers to these are the questions are explored in this paper.

5. BACKGROUND OF STUDY SITES

The case studies were chose from Vidarbha region of Maharashtra State. This is the forest rich region of Maharashtra State as it has over 56 percent of the forest area of the State. 32 percent of the total forest area covered under JFM in the State is in this region. However, it is also a poor region with a high percentage of population below poverty line (BPL). JFM in Maharashtra was introduced via the state government resolution of 1992. However, it only became operational in the year 1996. Many local communities were incorporated during the first phase. The latest Government resolution passed in 2003 (MSC/2000/143/F-2, 25th April 2003) has made it mandatory that one third of the general body members of the JFMCs will be women. Furthermore, 50 percent women members of the general body have to be present in the JFMC meeting for the meeting to be declared as valid. Instances of women-headed JFM institutions as well as Gram Panchayats has also been found in the State as well as the region (SHODH 2006), making it a suitable area to investigate the problem.

6. METHODS

A comparison was made across two types of JFMCs, that is, male-headed and female-headed. Village *Paraswadi* from Dhanora Range and *Kurkheda* village from Chatgoan range were chosen to represent male headed JFMCs. While in Paraswadi the Gram Panchayat is also headed by a man, the Sarpanch of Kurkheda is a lady. Villages *Kudakwahi* and *Botheda* from Chatgoan Range represented the category of villages with JFMC headed by women. The Sarpanch of Kudakwahi is a lady while that of *Botheda* is a woman. Thus, both the local level governance institutions are headed by women in *Botheda*.

Both primary and secondary sources of data collection were used. For primary data collection the methods used were household sample survey, informal group discussions, and researchers' observation and estimate. The data variable or indicators used to evaluate the level of participation of women in various activities, participation in employment opportunities, protection activities, financial dealings, number of general and executive body meetings attended, number of women as per the stipulated percentage in the local level bodies, women's opinion and perception about their level and opportunities about participation. In addition the level of awareness about various activities of the forest institution like rules, penalties, the financial dealings of the forest associations, etc., was also evaluated. In order to list out the benefits and costs to women various variables were considered such as availability of forest products, flexibility in rules, livelihood opportunities, empowerment and better access to information, other benefits (if any), etc. Costs that women in particular had to pay included increased time in collection, less availability or products leading to decrease in income, the burden of collection of forest product as compared to men, etc. In order to evaluate the efficient working of

an institution the indicators used were community level perception about effectiveness of rules, penalties, benefit-sharing mechanism, conflict resolution, etc. Additionally, the number of infractions to rules, the regularity and attendance in meetings, various activities taken up by the members of the institution to improve forest condition, and other related indicators were also considered.

The qualitative data was analysed using Multi-criteria analysis and in case of quantitative data was used to calculate simple cost-benefit from forests for households in general and women in particular.

7. CASE STUDIES

Villages *Kudakwahi*, *Botheda*, and *Kurkheda* fall within the jurisdiction of Chatgaon Forest Ranges and *Paraswadi* comes under jurisdiction of Dhanora Forest Range and sub-district (Taluka). For administrative purposes, *Kurkheda* and *Botheda* are in the Gadchiroli Taluka or sub-district, while *Kudakwahi* falls within the jurisdiction of Dhanora sub-district.

The four villages are easily accessible. Villages *Kudakwahi* and *Kurkheda* are about 3 to 4 kms from the Chatgaon Forest Range and are about a kilometre off the Gadchiroli-Rajnandgaon State highway. Village *Botheda* is about 15 kms from the Forest Range headquarters. *Paraswadi*, like the other villages is connected through a tar road and is about 11 kms from the sub-district place and 2 kms off the State Highway. All the villages are connected to the main market place of Chatgaon, Gadchiroli and Dhanora through privately run jeeps and public transport like State transport buses. They also use other means of transportation like bicycles and motorcycles. Residents of *Kudakwahi* even walk to the market place. The accessibility and various means of transportation make it easy for people of these villages to frequent the market place.

7.1. Demographic profile

Villages *Kudakwahi* and *Kurkheda* have a heterogeneous population which is dominated by Other Backward Castes (OBC) and Nomadic tribe (NT). However, villages *Paraswadi* and *Botheda* have 100% Gond (central Indian tribe) population. *Kurkheda* is the largest village with the highest population and the most number of households. *Botheda* is on the other end of the spectrum with only 21 households constituting 95 people. The sex ratio is favourable in *Kurkheda* and *Paraswadi* with more female members than male. However, in *Kudakwahi* and *Botheda*, male members formed a larger part of the population than female.

Under the 'Sarv Sikhsha Abhiyan' or the 'complete literacy drive' by the government, basic education infrastructure is available in all the villages. Each village has a kindergarten and a primary school till the 4th standard. The percentage of literate population in the four case studies is above 40 percent. It is the highest in *Botheda* village, where 59 percent of the population is literate. However, a chunk of the literate population is only literate, i.e. they are able to only write their name or sign. In *Kudakwahi* and *Paraswadi*, more than 51 percent people are literate. *Kudakwahi* is the only village where some residents have been able to complete their graduation. However, majority of the literate population in *Paraswadi* and *Kudakwahi* have done

their schooling till the 9th standard. In *Kurkheda* only 41 percent of the population was found to be literate.

7.2. Economic profile

7.2.1. Occupation

Agriculture is the dominant occupation in the case studies. Paddy is the main crop grown. Majority of the households in these villages have landholding less than 2.5 acres. There are a few households in *Kurkheda* and *Kudakwahi* that own more than 6.5 acres of land. In *Botheda*, all the 21 households own land, where as 89 percent of the households in *Kurkheda* own legal land. However, 50 percent of the sample households in both *Botheda* and *Kurkheda* have encroached on forest land for agricultural purposes, which ranges in size from 0.4 ha. to 1.2 Ha. in case of *Kurkheda* and 1.2 to 2.3 ha. in *Botheda*. A large proportion of the landless households exist in both *Kudakwahi* and *Paraswadi*. 38 percent of the total households and *Paraswadi* and 44 percent of the households in *Kurkheda* do not own legal land. Large numbers have encroached on common village land or forest land. Other than agriculture, farm labour is also a major occupation. Additionally, few households are also involved in other occupations like ration shops, fishing, and public employment.

7.2.2. Forest Dependence

Forest forms an important part of the subsistence of all the villages. Residents of the all the study sites draw from the forest to meet their fuel, food, and other livelihood and subsistence needs. Each of the case studies have varying forest areas assigned for use and protection. *Botheda* has the largest forest area of 943 ha. followed by *Paraswadi* (702 ha.), *Kurkheda* (320 ha.) and *Kudakwahi* with the smallest forest area of 271 ha. Due to low population and large forest area the per capita forest area for human consumption is 9.93 ha. in *Botheda* and only 0.95 ha. in *Kurkheda*. For livestock consumption too, *Botheda* and *Paraswadi* have large per capita availability of forest.

However, contrary to the per capita availability of forest in *Botheda*, only an average income of Rs. 2,210 is contributed by the forest. This is low compared to *Paraswadi* where Rs. 7,700 is the average income (computed and imputed) drawn from forest products. In *Kurkheda* and *Kudakwahi*, this was Rs. 5,221 and Rs. 3,069 respectively (see Appendix-1, table -3).

7.3. Institutional Profile

7.3.1. Establishment of JFMCs

The current JFMC of *Kudakwahi* was formed in 2003. However, JFM came to the village in 1997 when a JFMC was set-up under the World Bank funded project. Villages *Botheda* and *Paraswadi* too registered under JFM in 1997-98 when JFM was introduced in Maharashtra. However, the JFMC of *Kurkheda* was formed recently in 2003. All the four JFMCs have been registered under the National Afforestation Program and are federated under a nodal agency called the Forest Development Agency (FDA).

Paraswadi is the only village where the villagers requested the forest department in 1997 to set-up a JFMC. With constant pressure from the villages like Udaygoan, there was growing concern among the villagers about the fate of the forest. Self-initiated forest protection by villagers of Mendha (Mehra 2009) inspired people of *Paraswadi* to initiate protection of their forest and began informal protection activities. Women of *Paraswadi* also had an important role to play in pressurizing the rest of the village to take action. They were further guided by Shri Heraman Warkhade, a former member of the Legislative Assembly. He was a tribal leader and encouraged the people to set-up self-governance in the village.

7.3.2. Structure

The formal structure of all the JFMCs is the same. A JFMC consists of an Executive and a General body. The Executive body is the working committee while the general body consists of other residents of the village. The latest resolution passed by the government of Maharashtra in 2003 (MSC/2000/143/F-2, 25th April 2003) made it mandatory that one third of the general body members of the JFMCs will be women. Furthermore, it also made it compulsory that 50 percent women members of the general body have to be present in the JFMC meeting for the meeting to be declared as valid.

There are 11 members in the JFMC of *Kudakwahi* and 50 in the general body. It is headed by Mrs. Mandabai Chang. 36% of the members are women including the leader. However, only 5 women form a part of the general body out of a total of 50 members. The current Executive body members were nominated in a general body meeting. The President of the JFMC, however, was not a choice of the villagers. The Range Forest Officer (RFO) of that time had insisted on the appointment of a woman President as a statutory requirement. The current President of the JFMC was considered as suitable as she is the most educated in the village and belongs to one of the well-off families of the village.

Botheda JFMC also constitutes 11 members. Along with Joytibai Kumare, as the President of the JFMC, there are 4 other women. Thus women form 45% of the Executive body. There are 21 members in the general body. However, none of them are women. The JFMC president was nominated by the Forest Department. Thus, contrary to the villagers' will the president was appointed in order to follow the government stipulation.

Despite being the largest village among the four case studies, the *Kurkheda* JFMC has the smallest Executive body. Only 8 members were nominated in the executive body and 72 members in the general body (Microplan of *Kurkheda*). 50% of the members in the executive body are women. However, not a single woman is listed as a member of the general body.

The executive body of the *Paraswadi* JFMC has 10 members. 50% percent of these are women. The JFMC is headed by Mr. Prakash Usendi, where as the vice-President is a woman. The general body consists of 9 women members out of a total of 49 members.

7.4. Health and efficiency of the JFMCs

In order to evaluate the health and efficiency of the JFMCs, the forest-governance institutions were evaluated on various parameters like community level perception about effectiveness of rules, penalties, benefit-sharing mechanism, conflict resolution, infractions to rules, regularity and attendance in meetings, activities like forest protection, and community perception about forest condition. The purpose was to evaluate whether the healthiest JFMCs also reflect better participation of women and lower costs and higher benefits to women. Using Multi-criteria analysis, a performance matrix of the four JFMCs was prepared as show in table-1

TABLE -1: Performance matrix: Health of Forest institution

	<i>Kudakwahi</i>	<i>Botheda</i>	<i>Kurkheda</i>	<i>Paraswadi</i>
Member of the local forest association	3	3	3	4
Nature (only men, only women or both)	2	2	3	4
Meetings regular	0	0	0	5
Forest protection activities	1	0	0	4
Rules for forest use	1	0	0	3
Perception about use-rules	1	0	0	3
Effective benefit sharing mechanism	0	0	0	4
Infractions	0	0	0	3
Penalty system	0	0	0	3
Penalties to infractions	0	0	0	1
Perception about penalties	0	0	0	3
Existence of conflict-resolving mechanism	2	3	3	4
Community perception about forest condition	1	0	0	5
Total (out of a total score of 50)	11	9	9	46

Paraswadi has the healthiest JFM institution among the four case studies. This is the only village among the four case studies where there are structured rules for forest use, both men and women attend meetings on a regular basis, they have a functional penalty system, and there is regular forest protection. People find the rules in use, penalty system, and benefit-sharing mechanism, as fair.

In case of the other villages, however, the JFMC are working well. There are either no meetings or irregular meetings in *Kurkheda*, *Botheda*, and *Kudakwahi*. In *Kudakwahi*, meetings take place as and when the Forest Guard (also a woman) finds time to visit the village, which happens to be infrequent. Contrary to this, meetings are held on a regular basis in *Paraswadi*. This came out both during the household survey, group discussions, and the meeting records. It also reflected from the fact that when the researchers approached the villagers for the first time they were instructed to hold a meeting of the whole village and only then the researchers will have the permission to go ahead with the research. In *Paraswadi*, meetings take place every month. It is in these meetings that monthly demands for forest products are put forth before the Gram sabha and approved by the villagers.

As mentioned earlier, *Paraswadi* is the only village where rules for forest-use exist. There are restrictions on cutting of trees. Fruit trees like Moha, Char, Tendu, Awala cannot be cut. In order to harvest timber for agricultural implements and for house-building, households give their demand to the President of the JFMC. These demands are then put forth in the monthly meeting in which the whole village is present. In the discussion in the meeting, the final approval is given to the quantity that can be harvested by each household. In terms of fuelwood and fodder there are no restrictions. However, only dry wood can be picked for fuelwood purposes.

In *Kudakwahi*, only 20% of the households reported that there are rules, which are restricted only to extraction of timber. It is stipulated that each household will take the permission of the Executive committee members before extracting timber and fuelwood. In case of timber it has been decided that each household will make an entry in the JFMC register about their requirement and will be able to harvest after permission from the JFMC. However, 80% households were either not aware or reported that these rules only exist on paper. In *Botheda* and *Kurkheda* no rules exist. Thus, there are no restrictions on the use of the forest. People in *Kudakwahi* and *Botheda* reported that the earlier JFMCs had systematic rules which were followed by the residents.

A penalty system for forest offences exists only in *Paraswadi*. People mentioned that a fine of Rs. 51 has been decided for those who are caught cutting a fruit tree. But in general fines or punishments are decided in the Gram Sabha or the village meetings.

The traditional systems of conflict-resolution seem to have lost significance. Villagers seem to have more faith in the formal conflict-resolving mechanism introduced by the government through the Gram Panchayat. *Tanta-mukti*, as it is known, is active in all villages. However, in villages like *Kurkheda* and *Botheda* the villagers reported that dependence on the police for conflict-resolution is quite common. This reflects the collapse of traditional systems, especially in tribal villages like *Botheda* where effective systems have existed in the tribal tradition. Residents of *Paraswadi* who are also tribal have been able to maintain this system. This conscious effort is due to the guidance of the external and internal leaders. It is also inspired by tribal village Mendha where revival of Gond tradition has been successfully and has received a lot of recognition (Ghate 2004, Mehra 2009).

There are no protection or patrolling teams in *Kudakwahi*, *Botheda* and *Kurkheda*. People in all the three villages reported that this activity was undertaken very seriously in the villages when JFM first came to the village. A few of the Executive body members of *Kudakwahi* reported that they do go as and when a need arises. But none of the other sample households reported going for protection activities. However, five years ago regular patrolling was carried out where 8 to 9 people formed a team and patrolled everyday. The Vice-President of the JFMC Mr. Meshram reported that the plantation carried out a few years ago has been lost to a large extent due to lack of protection. "There are only a few plants that have survived. Initially there was restriction on felling and grazing in the plantation area, but now these rules are not followed by people".

During the group discussions and household survey in *Botheda* people mentioned how the whole village went for patrolling the forest in the early days of the JFMC as a

large area was to be protected. The effort which was inspired by the efforts of the residents of Mendha was able to sustain for quite a few years due to the effective leadership of Mr. Kumare. He was elected twice as the head of the JFMC of *Botheda*, but had to leave his post for a woman leader on the insistence of the Forest Department. However, the woman leader herself admits to the fact that she has failed to sustain the previous efforts. *"I am unable to handle this post. There are no protection activities, no one goes to the forest and no one listens to me. I had even submitted my resignation but the Forest Department people told me to continue till the end of my tenure. So here I am"* said the current JFMC President who was in an inebriated state. In the past, the residents of *Botheda* had resisted the use pressure by handling the outsiders collectively, but not anymore. What has added to this problem is the step-motherly treatment meted to them by the field staff of the Forest Department over plantation related employment in *Botheda* forest. The outcome of this lack of protection is summed by Janabai Kumare an old lady from *Botheda* who has seen a time when the forest was very close to the village. She said *"This is the only patch of forest that remains in our area. As a result the other villages are cleaning it from one side and we are 'eating' it from this side. One day we will be standing facing each other with no forest in between. No one in this village now has the enthusiasm to do any protection"*.

In *Kurkheda* too, people mentioned that patrolling was carried out very enthusiastically in the initial years of the JFMC. However, people lost interest slowly. The leadership required to sustain this effort was not provided by the JFMC president. As Indutai of *Kurkheda* remarked *"why should anyone go for protection when the so called protectors, that is, the members of the Executive body of the JFMC are the destroyers of the forest themselves. Do you see the big logs of wood used in the house of the President of the JFMC? Go and see his cow-shed. It is full of fuelwood. Who do you think is going to make the effort to protect this forest?"* Contrary to this Mahanandabai Pal who is a member of the Executive body of the JFMC remarked *"There is no unity in the village. If we as members of the JFMC stop people from misusing the forest they turn around and question our intentions and ask us of why we are taking so much of interest in forest protection and what special benefits are we getting out of it? When we tell them to help in protection they turn around and say that they have better things to do. People very clearly tell us that just because we are not harvesting, it does not mean they are not supposed to harvest."* These remarks clearly bring out the fact that there is no sense of belonging towards the resource. As a result there is no inclination to invest time in protecting the resource.

In *Paraswadi*, a patrol team exists. One person each from two households goes for patrolling everyday. The members of the patrol team are rotated everyday among men and women residents of the village. Like other villages in this Forest Range (Mehra 2009), *Paraswadi* also has a system where a stick is used to identify the household who has the patrolling duty for the following day. Women also go for patrolling especially when the men of the household cannot do so. Thus, the activity of forest protection is handled more by men than by women. However, informally women carry out this activity when they go to the forest to collect forest products. *"The forest does not belong to just men. It's protection is everyone's responsibility. Infact, for women the forest feels like home and gives more benefits than to men. So*

even if we go to pick a small thing like a *Datun*, we keep our eyes open for any misuse.”

7.5. Level of participation of women

Participation of women varied between the case studies. While it was poor to low in *Kudakwahi*, *Botheda* and *Kurkheda*, it was good in *Paraswadi*. To evaluate the level of participation of women in various activities, various variables were considered such as participation in employment opportunities, participation in protection activities, JFMC meetings attended, ability to express their opinion, number of women as per the stipulated percentage in the local level bodies, etc. In addition the level of awareness about various activities of the forest institution like rules, penalties, etc., was also evaluated even though they did not participate directly.

TABLE -2: Performance matrix: Participation of women

	<i>Kudakwahi</i>	<i>Botheda</i>	<i>Kurkheda</i>	<i>Paraswadi</i>
Hold Position in JFMC	1	1	1	1
Attend meetings	2	0	0	5
Able to express opinion	1	0	1	2
Women's' suggestions accepted	1	0	0	2
Awareness about rules	2	1	2	4
Awareness about penalty system	1	1	1	4
Awareness about JFM activities like entry point activity	2	3	3	3
Participation in employment activities	0	0	0	4
Participation in protection activities	1	0	0	4
Women's participation in EB	4	4	4	4
Women's participation in GB	2	0	0	2
Awareness about JFM leader	4	4	4	4
Total (out of a total score of 50)	21	14	15	37

Level of participation of women was found the highest in *Paraswadi*. The healthiest institution of all the four case studies also had the highest level of participation of women. The points on which the case study scored were attendance in meetings, awareness about rules, penalty system, participation in employment and protection activities, awareness about JFM leader and stipulated membership in Executive body. Even though the stipulated participation in the general body was less than 33% in the village, women reported that they participated in the meetings on a regular basis. This also reflected in their awareness level about the forest rules, system of penalty, and the meeting records, etc. However, there are cultural constraints that were visible due to which women were not active participants in terms of decision-making or expressing their opinion, although they were active in the implementation of the rules, employment activities, as well as awareness level. From this point of view scores of *Paraswadi* reflect a low score of 2 out of 5 on indicators like 'able to express opinion in meetings', 'suggestions of women accepted' and 'women's participation in general body'. 50% of the women reported that they were not able to express their opinion in the meetings as they were too shy to speak publically. They also felt that there were some educated women who spoke in the meetings and thus with them around there was no need for other women to speak. However, none of them said that the reason for the lack of active participation

in meetings was due to discouragement of men. Infact, they pointed out that the head of the JFMC encouraged them to speak. Many a times it is only the women of the village who are present in the meetings. 37% of the women reported that suggestions of women are taken in the meetings while taking decisions. However, 63% reported that women did not give any suggestions in meetings.

As per the typology of participation mentioned by Agarwal 2001, participation of women in *Paraswadi* moved between the levels of passive participation, i.e. "being informed of decision *ex post facto*; or attending meetings and listening in on decision-making, without speaking up" to Active-specific participation, which is "being asked to (or volunteering to) undertake specific tasks". In some instances women of the village have had Active participation, which as per the typology is "expressing opinions, whether or not solicited, or taking initiative of some sorts". This has been in specific case. For instance when it came to plantation activity in the *Paraswadi* forest, the women of the village did not allow the forest department to plant any specie but specific species which would be of use to them like bamboo, Moha, etc. As per the researchers' estimate, participation of women in *Paraswadi* was active, as women were not hesitant to express themselves. There was open and ready cooperation for the research activity. Their sense of belonging towards the forest, awareness about forest activities, and vocal participation in discussions with the researchers in the presence of men, was visible. Infact, this was the only village where women spoke confidently in the absence as well as presence of men.

In case of other villages participation of women was only nominal, which as per Agarwal 2001 means "membership in the group". The membership is as per stipulation in the executive body of the JFMCs but only nominal in the general body of the JFMC of *Kurkheda* and *Kudakwahi*. It is totally missing in the general body of the JFMC of *Botheda* and *Kurkheda*. Only the heads of the households are the members of the general body. Thus, the women heads of the households (that is those women who are widows) are listed as the only women members in *Kudakwahi* and *Paraswadi*.

In *Kudakwahi* participation of women was seen to some extent. This was however, restricted to women of the executive body attending the meetings as and when the meetings took place. Women respondents from this village admitted that they did not pay attention to the information passed on by the head of the JFMC or her pleas to attend meetings. They attributed their lack of interest to many facts. Some did not see any benefit in attending the JFMC meetings. 25% of the women respondents did not attend meetings as they had household chores to attend to. 50% felt that they did not feel comfortable speaking in meetings as men did not allow them to speak or they were termed as being 'over smart'. As a result men put a question mark on their character. 25% felt that they did not attend simply because there are no meetings to attend. 63% of the women reported that women's opinions have never been sought in the village over any issue related to the village. However, women in the executive body including the President mentioned that once the women of the village demanded participation in employment activities in the forest which the villagers agreed to. However, this has been considered a stray incident. The level of awareness among women of this village was found to be average. There was little sense of belonging towards the forest even though women were aware of how important the resource was for them. However, the women were clear that the forest

was not their property but that of the forest department. The level of awareness among the women members of the executive body was also average as they had little idea about JFM and FDA and the forest related activities in the village forest. In *Kurkheda*, one of the executive body member remarked about the lack of participation of women. Pal bai said “*women are hesitant to talk in meetings or go for meetings as people start raising fingers on them. You cannot take your husband every time to a forest department meeting. You need to go with other men of the JFMC. But that goes against us as people start doubting our character*”. Women also remarked that they find it difficult to sit in meetings as men come drunk for such village gatherings. Thus, it becomes one of the major reasons for women being absent from meetings.

In *Botheda* the participation of women was found to be the poorest. This is not in terms of awareness levels, attendance in meetings, expression of opinion (as per the household survey) but also what the researchers observed. Some of the household interviews had to be abandoned half way through the interview as the women respondents refused to cooperate by remarking that they had no knowledge. The women respondents in the village reported that they never attend meetings as there are none to attend. It took a lot of time for the researchers to extract the opinion of the women which is a reflection of the fact that women in the village are not forthcoming in expressing their opinion or thoughts. The lack of participation of women was attributed to the fact that the head of the JFMC did not take any initiative to encourage the villagers. It also reflected from the group discussions that the head of the JFMC was not an acceptable candidate for the position. The previous President of the JFMC was a popular leader who was replaced by the current JFMC head on behest of the Forest Department.

Leadership is an important part of group dynamics and is responsible for the success of an institution (Ghate and Mehra 2003). An effective leader can bring active participation of people in any group activity. Thus, active participation of women, especially at the implementation level can be largely due to motivation of a leader (Mehra 2009). *Paraswadi* stands as an example of that. It is the active role of the leaders in *Paraswadi* which is responsible for the effective working of the local institutions. 50 percent of the women respondents found the head of the JFMC as good and the other 50% rated him as very good. All the households reported that he has been responsible for bringing unity in the village and works for the benefit of the village. Women respondents were happy with him as he encouraged participation of women in meetings and other activities. However, in *Paraswadi*, it is not only the head of the forest institution but the local priest too (also the traditional headman of the village) who has an influence over the villagers. He is also responsible for maintaining unity in the village. However, in addition to the effective internal leadership, there is external leadership too which has been responsible for helping the villagers in initiating forest protection. Villagers also receive constant guidance from the external leadership in various matters related to the village.

However, in the other villages, leadership, whether from the JFMC head, the Sarpanch or the Forest Department, is non-existent. This is true across institutions headed either by a woman or a man. Mr. Meshram, Vice-President of the JFMC of *Kudakwahi* remarked on whether a woman leader is better than a male leader. He said “*Women cannot handle such an important post as the President of a JFMC.*”

Men cannot take orders from a woman'. However, the President of the JFMC of the village Mandabai felt that it was difficult for women to take an effective lead position as they have to take dual roles, which become difficult to balance *"I have household chores to attend to plus attend meetings, call for meetings and other tasks as a President. It becomes very difficult for me to function as JFMC head"*.

However, the President of the JFMC of *Kurkheda*, who is a man, has also not proved to be an effective leader. Kamal bai Kinhikar or *guru matta* (as she is known by the villagers) of *Kurkheda* remarked *"when a man cannot bring participation of people, then how can a woman do it? Having women in decision-making positions is not enough. They need to work for the village. We have women in the executive body of the JFMC. What do they do? Nothing!!"*. Indutai of *Kurkheda* also added *"having a woman in the lead position does not ensure effective participation of other women of the village. We have a woman as a Sarpanch, but she is ineffective as a leader as she is corrupt. People do not trust her. She has also not done anything for the villagers. But having a corrupt leader in the form of Mr. Kumare has also not helped. We are losing our forest and no one there to do anything about it"*.

7.6. Cost and Benefits to women

A calculation of the benefits from the forests (see Appendix-1, table 3 and 4) shows that the benefits from the forest in *Paraswadi* are nearly 7 times of the average cost that households pay in protecting the forest. However, in *Botheda* the benefits are only two times that of the costs that the residents are paying. These costs include loss of income due to deterioration of forest condition.

TABLE -5: Benefits affecting women (% HHs)

	<i>Kudakwahi</i>	<i>Botheda</i>	<i>Kurkehda</i>	<i>Paraswadi</i>
benefit of forest (% HHs)				
To meet HH needs	62.5	75	72	75
A sense of security to women	0	25	35.71	50
Benefits of JFMC				
More confident publically	25	0	21.43	45.00
Women's opinion taken more seriously	12.5	0	0	25
Better access to forest products	0	0	0	37.5
Reduction in drudgery of women due to better rules or facilities	12.5	0	14.29	62.5
Get to visit new places and get information	0	0	7.14	10

In terms of specific costs and benefits to women in the four case studies, the highest percentage of households from which women reported benefits were from *Paraswadi* and lowest from *Botheda*. Women in *Paraswadi* were able to list out the maximum number of benefits from the forest. However, nearly all women from the four villages agreed that the biggest benefit of forest is to meet household needs. There were few women who not did feel so as they belonged to households where the needs supplied by the forest were fulfilled by alternatives like LPG gas, etc.

“We have to go to the forest quite often while men go to the forest only twice in a year. Once to fetch timber and once to fetch fuelwood before the rainy season” Varkhade bai of Kurkheda.

“Women fetch a lot of things from the forest which is used in the household. Even the plates for eating our meals are made of tree leaves.” Luli bai of Paraswadi.

“The forest is like our parents place and not like the in-laws place. In the in-laws place there is hesitation and fear but not in your parents place. That is how we feel in a forest. There is no fear” Subhadrabai of Botheda.

“We have to nurture the forest like we nurture our children. When it burns we are at loss. Thus, its protection is very essential” Janabai of Paraswadi.

50% of the women respondents in *Paraswadi* also reported that the forest gave a sense of security to them. In terms of benefits from the forest institution 45 percent of the women respondents in *Paraswadi* reported that they are able to conduct themselves more confidently in public. This has been mainly due to the efforts of the leaders. *“We are taught that both men and women should speak in meetings. No one interferes with that”* Luli bai. However, only 25% of the women respondents in *Kudakwahi* and 21% in *Kurkheda* felt that they are able to conduct themselves better. These were members of the executive body who have been through initial capacity building activities carried out by the forest department. Contrary to this in *Paraswadi* only one woman respondent who featured in the sample held a position in the JFMC. Thus, the other respondents felt the benefits even though they belonged to households that were ordinary members of the JFMC.

Similarly, it was only in *Paraswadi* that 37% of the respondents reported that they have been benefited as they have better access to forest products. The others felt that there has not been much change in the forest condition in the past five years. As a result there has not been much change in access to forest products. Five years ago, they had to walk upto a km from the village to the forest. In current times too the distance remains the same. They are able to get dry wood and thus do not take much time to collect fuelwood. According to them availability of dry wood is mainly because the condition of the forest is good. Thus, collection of fuel wood is easy. However, there has been some relaxation in rules which has benefited women. This is permission to use bullock carts to fetch fuelwood especially before the rainy season. This has reduced the drudgery of women to a large extent. Thus, 62% women identified that as a benefit to them. However, only 12% women in *Kudakwahi* and 14% in *Kurkheda* identified that as a benefit. This has not been due to change in the rules in these villages but mainly because of non-existence of rules. However, for a lot of women in *Botheda*, *Kurkheda* and *Kudakwahi* the drudgery of collecting fuelwood has got accentuated in the past five years as the time of collection and distance to the forest has increased. They no longer get dry wood. As a result they have to cut fresh wood, which means more physical effort.

10% women in *Paraswadi* and 7% in *Kurkheda* reported that as a result of JFM they are able to visit new places and able to get new information about forest protection.

“Due to my capacity building visits to Mendha and Yerandi I am able to understand the need for forest protection better” Mahananda bai Pal of Kurkheda.

TABLE -6: Costs affecting women (% HHs)

	<i>Kudakwahi</i>	<i>Botheda</i>	<i>Kurkheda</i>	<i>Paraswadi</i>
Lost mandays	75	100	85.71	12.5
More energy lost	75	100	78.57	0
Health problems	37.5	50	35.71	0
Protection work	0	0	0	100

Average number of days

Average time increased in collecting a headload of fuelwood in 5 years	2 hours	2 hours	2.5 hour	Not much change
Average mandays lost due to decline in other FPs (annual)	10.27	11	12.875	0
Average mandays in protection work	0	0	0	10

Table 6 shows that the percentage of women reporting costs from forests is high in *Botheda*, *Kurkheda* and *Kudakwahi*. In the costs listed out by women, *Botheda*, *Kurkheda* and *Kudakwahi* feature in all of them. 75 percent of the women respondents in *Kudakwahi*, 100% in *Botheda* and 85% in *Kurkheda* reported to have lost productive mandays in collection of forest products due to increased collection time. However, only 12% in *Paraswadi* reported that. The remaining percent of respondents, especially in *Kurkheda* and *Kudakwahi* who did not feel any loss of mandays were mostly women of higher income groups who did not need to go to the forest as the forest products were collected by their servants. Similarly, a high percent of women in *Botheda*, *Kudakwahi* and *Kurkheda* reported of loss of energy due to increased collection time as well larger physical effort needed to collect forest products. As mentioned earlier, women in *Kurkheda*, *Botheda*, and *Kudakwahi* reported that they were no longer able to get dry wood as number of trees have reduced. As a result they have to hack tree branches. This means more physical effort. It is not only physically tiring for women but is also showing its affect on their health. Plus increased time in collection also means that women get less time to rest. As Lilabai of *Kurkheda* said “with more time spent on collection of fuelwood and other products like Tendu leaves, Moha, etc. we get less time to relax. It’s a hard life now. Our health is also suffering as the forest provided various products that acted as tonic like moha flowers or ambil. But now decreased availability means, we need to keep it aside for sale purposes for the household income. There is nothing left for us to eat. Our health suffers in the process”. Saraswati bai of *Kurkheda* substantiated it by remarking that “we get tired more, so need more time to rest. But there is no time”. Janabai of *Botheda* complained “Men spoil the forest and women have to suffer. Women need fuelwood and men only ask for food. Earlier I could get fuelwood within half an hour. But now it takes nearly 3 hours. I have to ask my little grandson to help me. Even moha trees have become less”

Many women complained of constant neck ache as they had to carry headloads from longer distances. There were some who complained of hair loss due to constant

rubbing of headloads against their head. The average time for collection of fuelwood has increased by 2 hours in *Kudakwahi* and *Botheda* and by 2.5 hours in *Kurkheda* in the past five years. Women also complained of facing problems with the forest department guard. Women in *Kudakwahi* complained of their axe and headloads being confiscated by the forest guard. Some mentioned constant harassment from the forest guard for bribes. However, women in *Paraswadi* reported of no significant change.

Other than fuelwood, there are other forest products that have declined. Women in *Kurkheda* and *Botheda* complained of decline in Tendu and Moha trees. "*Moha wood burns very well. As a result Moha trees are being increasingly hacked for fuel purposes*" Lilabai from *Kurkheda*. What this means that women have to now walk longer distances to fetch these products. "*We could get 5 to 6 khandi (1 khandi is approx. 80 kgs of Moha) of Moha, but that has got reduced to 10 to 15 kudav (1 kudav is 4 kgs). We could get 2 headloads in 3 hours. Now it is 1 headload in 5 hours. There is no char in this forest. Five years ago it was available in plenty*" Subhadara bai Kumare of *Botheda*. Due to increase in collection time of fuelwood and forest products, on an average women in *Botheda*, *Kudakwahi*, and *Kurkheda* are losing 10 to 13 mandays, which can be used in other income-generating activities. This is especially true in case of women as they are responsible for collection of most of the forest products. Women of *Paraswadi* are putting in 10 mandays on an average on protection activities while men give 13 mandays. This however cannot be strictly considered a cost as protection activity is a productive activity that helps generate benefits from the forest. However, loss of mandays due to increased collection time means increase in real cost to the collectors.

8. CONCLUSIONS

Forests are vital for maintaining the environment and women play a critical role in forest protection. They are major collectors of forest products and familiar with the forest like their home (Anonymous, 2005). However, it is the women who bear the costs of forest destruction and transformation in forest-use. Recognizing the fact that lack of active participation of women in forest management, government regulations and policies have constantly upgraded the stipulated participation of women in the Joint forest Management program in India. However, the lessons learnt from the case studies point that gender participation in forest management is passive despite various policy changes. There are many constraints that do not enable women to participate effectively in forest management activities. Many a times women themselves do not find any benefit in being attached to a forest-governance initiative. This was seen in *Kudakwahi*, where despite persuasion from the JFMC leader, the members did not find any benefit of investing their time and energy in attending meetings or undertaking forest protection activities. However, even when women are keen to participate and want to protect the resource for their own benefits, there are many cultural constraints that they have to face. It is known that when it comes to establishing the gainers and losers from forests, women have come out to be the major losers (Chambers *et al.* 1989), which women are aware about. However, they lack confidence to speak publically, as well as the courage to take initiative as they are likely to face hostilities. Many times their opinions are not taken as a result they lose inclination to participate.

Gender participation in forest management is important as it helps to maintain efficiency of forest institutions. *Paraswadi* has brought out this fact. Women are actively involved in forest protection and other activities. Although they are not actively involved in the routine decision-making process but they are encouraged to participate which has resulted in participation of women in certain specific issues related to forest. This is a beginning. Better participation has not only helped to maintain efficiency of the forest association but has reflected in better forest condition which in turn has led to higher benefits and lower costs to women of *Paraswadi* as compared to the women of other case studies. It is known now that the knowledge, skills and practices of both men and women contribute to the conservation, management and improvement of natural resources (Homberg 1993, as cited in Gurung *et. al.* 2000). Many case studies have brought out the fact that women's participation has been helpful in better adherence to institutional rules as well as leading to better transparency in working of the institution. It also led to more conflict-resolutions and better compliance. (Acharya 2006, Pandolfelli *et. al.* 2007b) Hence it is essential to look into the roles of men and women, their knowledge, and contributions to forest management.

Rural communities are male dominated. Thus, even if women are provided the legal backing of government policies and regulations of leading forest management activities by providing reservation to women as heads of the JFMCs, they are unable to work as effective leaders. *Botheda* and *Kudakwahi* have JFMCs that are headed by women. The head of the other local institution that is Gram Panchayat of *Botheda* is also a woman. Additionally, even if the more women are included in decision-making positions, i.e., in the EC (agarwal 2010) it does not guarantee active participation. This is visible in the case studies where mere policy backing has not helped in felicitating increased participation of women in forest management. On the contrary it has worked against the objectives of forest conservation. This has been because the forest department, instead of working with the local communities, worked against the dynamics of the local communities and imposed the government regulation. Instead of building the capacities of women in the communities, as well building awareness among the residents of the villages about the role of women, government regulations were imposed without building a foundation. In both the case studies the imposition of government regulations affected the effective forest protection efforts carried out by the communities in the past. Village *Kurkheda* is an example where there is a history of women heading the local associations like the Gram Panchayat. However, these positions have been handed over without any efforts to build the capacity of the leaders. As a result, despite three tenures of lady Sarpanchs, the heads are still working as dummies where their husbands are proxy leaders. It is the same case in *Kudakwahi*. Lead role of women in these villages has not only had no effect on participation of women, it has also not led to better health or efficiency of the local forest association. Poor performance of the local association has led to deterioration in the forest condition due to which women in these villages have to bear high costs in terms of increased productive mandays spent in collection of forest products, longer hours, longer distance, health problems, etc.

Leadership has a very important role to play in making a group activity a success. But a leader has to have the qualities of integrity, sense of justice and fair play, should bring benefits to the group, solve their problems, guide them, etc, whether the leader is a man or a woman. In male-dominated societies it is easier for a male

leader to get cooperation from a group, but it is difficult for women to work as leaders in a male-dominated society. However, there are women who possess leadership qualities. Identifying such women and giving them the opportunity to lead local governance can help bring positive results. However, the case studies have brought out the fact that the forest department nominates candidates with the objective to reach targets. Women selected in *Kudakwahi*, *Botheda*, and *Kurkehda* belonged to influential families. With only that as a criteria for choosing a leader has had no desired effect. Infact such steps in *Botheda* and *Kudakwahi* have only added to the deteriorating condition of the forest with adverse effect on women.

Along with policy support there has to be sincere encouragement to women's active role in decision making at the community level and not just for token representation. Moreover women can be more actively involved by providing them immediate benefits from forest management like financial gains from creating nurseries or appointment as forest guards. Women's success in self help groups have been observed in the case studies. This was mainly because women and their households have been able to get immediate economic and social benefits. Also, their active participation was not hindered by the presence of men, as the self-help groups are all women groups. All women groups are conducive to women's participation, because women are more comfortable and they have a great chance to be heard than in a mixed-group (Agarwal 2000). However, forest management has to have the involvement of men and women as both have their respective advantages in forest protection. Thus, efforts have to be made to increase the participation of women in mixed groups. However, this may require external help. Gender-supportive NGOs can play a major role in increasing the participation of women. External help from NGOs or leaders can prove to be effective as has been seen in *Paraswadi*.

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APPENDIX-1

TABLE -3: Average benefits to HHs (in rupees)

	<i>Kudakwahi</i>	<i>Botheda</i>	<i>Kurkheda</i>	<i>Paraswadi</i>
Subsistence and sale benefits from forest	3,069.00	2,210.00	5,221.00	7,683.00
Livelihood benefits	-	-	-	350.00
Other benefits: Community funds	50.00	375.00	104.00	57.00
Benefit sharing with FD	-	-	-	-
TOTAL	3,119.00	2,585.00	5,325.00	8,810.00

TABLE -4: Average costs to HHs from forest (in rupees)

Average costs to HH	<i>Kudakwahi</i>	<i>Botheda</i>	<i>Kurkeda</i>	<i>Paraswadi</i>
Protection work in mandays (Rs.)	-	-	-	1,638.75
Hiring of BC to fetch Fuelwood (Rs.)	37.50	150.00	53.57	-
Loss of income on FPs	700.00	1,160.00	1,300.00	-
TOTAL	737.50	1,310.00	1,353.57	1,638.75