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# Environmental Action, Gender Equity and Women's Participation

Bina Agarwal

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## ABSTRACT

For poor households, and especially for the women who own little private land, forests and village commons have always been critical sources of basic necessities in rural India. However, the availability of these resources has been declining rapidly, due both to degradation and to shifts in property rights away from community control and management to State and individual control and management. More recently, though, we are seeing small but notable reversals in these processes toward a re-establishment of greater community control over forests and village commons. Numerous forest management groups have emerged, initiated variously by the State, by village communities, or by non-governmental organizations. However, unlike the old systems of communal property management which recognized the usufruct rights of all villagers, the new ones represent a more formalized system of rights based on membership. In other words, under the new initiatives, membership is replacing citizenship as the defining criterion for establishing rights in the commons.

This raises critical questions about participation and equity, especially gender equity. Are the benefits and costs of the emergent institutional arrangements being shared equally by women and men? Or are they creating a system of property rights in communal land which, like existing rights in privatized land, are strongly male centred? What is women's participation in these initiatives? What constrains or facilitates their participation and exercise of agency? This article provides pointers. It also demonstrates the relevance of the feminist environmentalist perspective, as opposed to the ecofeminist perspective, in understanding gendered responses to the environmental crisis.<sup>1</sup>

Non-privatized land resources in the form of forests and village commons (VCs) have always been important sources of livelihood and basic necessities for rural households in developing countries. For many poor households and especially women, who own little private land, they have been critical for survival. However, in India, as in many other regions, first under colonial rule and then after Independence, the availability of forests and VCs to rural

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1. Abbreviations used in this article: FPC = Forest Protection Committee (under JFM); JFM = Joint Forest Management; NGO = Non-Governmental Organization; VCs = Village Commons; VP = Van Panchayat (forest council).

communities has been declining rapidly. This is due both to degradation and to reduced access to what is available, the latter resulting particularly from the twin processes of statization (appropriation by the State) and privatization (appropriation by individuals). These processes have, in turn, contributed to the further decline of these resources, by eroding traditional systems of resource management and use.

Indeed, by the late 1970s, deforestation and the degradation of VCs had reached crisis proportions in many states of India.<sup>2</sup> The alarm sounded by grassroots activists, journalists, and some academics, led the government to initiate tree-planting schemes under the banner of 'social forestry'. Undertaken in a top-down manner, most such schemes succeeded neither in regenerating degraded commons and forests, nor in meeting everyday village needs. In particular, they raised serious doubts about the ability of the State, or of individuals, to develop what was a communal resource, without some form of action involving local communities. In contrast to this, success stories were emerging of forest protection and management by village communities, including forest protection movements such as Chipko and Appiko, spontaneous initiatives by populations living on the edges of forests, and attempts by some forest officials to involve villagers in the management of degraded forest land as a 'joint' venture.

As a result of the lessons learnt, we are today seeing small but significant reversals in the earlier processes of statization and privatization toward a recreation of communal property rights in forests and VCs. Numerous forest management groups have emerged, some State-initiated under what is termed the Joint Forest Management (JFM) programme, others self-initiated by village communities, yet others catalyzed by non-governmental organizations (NGOs). The JFM programme, in particular, reflects a long-delayed recognition by the State of the failure of top-down, bureaucratic approaches to natural resource management. It is also a recognition that the most appropriate property rights arrangement for forest and VC management in most regions might be neither individual-private nor exclusively State ownership, but one in which the *community* has strong vested interests and an assurance of gains.

In one sense the new initiatives represent a move toward re-establishing some degree of communal property rights. But unlike the old communal property systems which, in one way or another, recognized the usufruct rights of all residents of the village,<sup>3</sup> the new ones represent a more

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2. In India, the term 'state' relates to administrative divisions within the country and is not to be confused with 'State', used throughout the paper in the political economy sense of the word. Elsewhere in South Asia these administrative divisions are termed provinces.

3. Historically, in most South Asian communities, a significant percentage of village land was available for communal use in the form of forests, woodlots, pastures, etc. Access to these lands took complex forms, linked in broad terms to the prevailing varied systems of village land tenure. For instance, at the time of British accession to power, in western and

formalized system of rights dependent on membership in the emergent institutions. In other words, under the new initiatives, *membership* rather than *citizenship* has become the defining criterion for access to these resources.

This raises critical questions about participation and equity, especially gender equity. Are the benefits and costs of the new institutional arrangements being shared equally by women and men? Or is a new system of property rights being created in communal land which, like existing rights in privatized land, is strongly male centred, thus depriving village women of the only remaining land resource of significance in which they had rights unmediated through male relatives? What is the extent of women's participation in these initiatives? What constrains or facilitates their participation and exercise of agency?

In the existing literature on environmental action, that relating to these emergent institutional arrangements is still sparse, and that which takes account of gender concerns even more so. This article attempts to provide some pointers in answer to the above questions, based on field visits (especially during 1993–95) to several sites of environmental action, on discussions with villagers and NGOs, and on emerging case studies.

I argue here that without women's effective participation in all aspects, the emergent initiatives will have serious adverse consequences for social equity and programme efficiency, and will further disempower women. Indeed the twin concerns of equity and efficient environmental protection need not be in conflict; quite the contrary. The article also highlights the problem of treating 'communities' as ungendered units and 'community participation' as an unambiguous step toward greater equity. In addition, it demonstrates the relevance of the feminist environmentalist perspective (elaborated in Agarwal, 1992, and discussed below), as opposed to the ecofeminist perspective, in understanding gendered responses to the environmental crisis.

The article is divided into nine sections. Section 1 briefly traces the main processes affecting the availability of forests and VCs. Section 2 discusses why the impact of these processes has a class and gender specificity, and spells out their effects especially on women of poor rural households. Section 3 outlines the broad features of the emergent institutional initiatives, and

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southern India where peasant proprietorship was common, all uncultivated village land could be used by residents for grazing and gathering, and (in consultation with the village headman) for extending cultivation. Elsewhere, as in northwest India, where group proprietorship was common, both cultivated *and* uncultivated land was held by the founding family(ies) or clan(s). But even here, customarily, uncultivated land was available for use to other village residents serving, say, as tenants or servicing the founding family(ies). Moreover, villagers had easy access to additional common land outside the village. In other words, communal lands within and outside the village bounds were accessible, in one way or another (restrictions being greater under the group-proprietorship system), to all village residents, irrespective of sex, age, caste, or ethnicity. (For more details see Agarwal, 1994: Ch 1.)

section 4 traces the gender gap in participation in these initiatives and the resultant adverse effects on women's and family welfare, programme efficiency, and women's empowerment. Section 5 discusses the constraints to women's formal participation in the emergent institutions; section 6 highlights contrasting cases especially of women's own informal initiatives for protecting and regenerating local forests and VCs; and section 7 outlines ways by which women's involvement in the formal initiatives may be strengthened. Section 8 focuses briefly on what these emergent initiatives tell us about gendered responses to environmental degradation, while section 9 contains summary comments.

## 1. STATIZATION, PRIVATIZATION, AND INSTITUTIONAL EROSION

In 1987–89 only 64 million ha or 19.5 per cent of India's geographic area was forested (Table 1). Much of this land was highly degraded, with poor tree cover, and the remaining forests were disappearing rapidly. Today most of the good forest land is concentrated in a few states of central, eastern and northeastern India. Large tracts of common lands once used by rural communities as pastures or as sources of firewood, fodder and other products have disappeared or been severely denuded. Simultaneously, the availability of these resources has been decreasing, due especially to two major processes: statization and privatization.

Consider first the process of *statization*. Beginning under colonial rule and continuing after India's Independence, State control over forests and VCs grew. British policy involved establishing State monopoly over forests, reserving large tracts for timber extraction, severely curtailing the customary rights of local populations over these resources, and encouraging the replacement of locally-used species with commercially profitable ones, under the mantle of 'scientific' forest management. There was also large-scale felling for building railways, ships and bridges, establishing tea and coffee plantations, and expanding the area under agriculture in order to increase the government's land revenue base (Guha, 1983, 1985). These policies severely eroded local systems of forest management, legally cut off an important source of sustenance for the poor, even though illegal entries continued, and created a constant source of friction between forest officials and the local people.

Post-colonial policies, at least up to the late 1970s, showed little change from the colonial view of forests as primarily a resource for commercial use and gain. State monopoly over forests persisted, with its attendant tensions, as did the practice of forestry for profit. Restrictions on local people's access to forest produce actually increased, and the harassment and exploitation of forest dwellers by the government's forest guards were widespread.

In the late 1970s and early 1980s there was some State recognition of the need to contain the rate of deforestation and to reclaim degraded forests and

Table 1. Per cent Forest Area by States

States	Forest area in the state (1987-89)		
	million hectares	as per cent of state's geo-area	as per cent of total forest area in India
INDIA	64.013	19.49	100.00
NORTHERN INDIA			
<i>Northwest</i>			
Haryana	0.056	1.27	neg
Himachal P.	1.338	24.00	2.09
J & K	2.043	9.20	3.19
Punjab	0.116	2.32	0.18
Rajasthan	1.297	3.80	2.03
Uttar P.	3.384	11.49	5.29
<i>West and Central</i>			
Gujarat	1.167	5.90	1.82
Madhya P.	13.319	30.03	20.81
Maharashtra	4.406	14.32	6.88
<i>Eastern</i>			
Bihar	2.693	15.50	4.21
Orissa	4.714	30.26	7.36
West Bengal	0.839	9.46	1.31
SOUTH INDIA			
Andhra P.	4.791	17.40	7.48
Karnataka	3.210	16.80	5.01
Kerala	1.015	26.11	1.58
Tamil Nadu	1.772	13.62	2.77
NORTHEAST INDIA			
Arunachal P.	6.876	81.80	10.74
Assam	2.606	33.10	4.07
Manipur	1.788	80.10	2.79
Meghalaya	1.569	70.98	2.45
Mizoram	1.818	89.47	2.84
Nagaland	1.436	86.12	2.24
Tripura	0.532	50.78	0.83
Other areas	1.228		1.92

Source: GOI (1991: 23, 28).

VCs. A variety of tree-planting schemes were therefore initiated:<sup>4</sup> some schemes involved direct government management, others required village communities or individual farmers to plant. Many of the government's direct planting ventures had poor tree survival rates and typically did little to

4. This was supplemented by steps to reduce fuelwood use by promoting biogas plants and improved wood-burning stoves (Agarwal, 1986a).

alleviate the local fuel-fodder problem; in fact the species most commonly planted, eucalyptus, provided no fodder and poor fuel. In some cases even natural mixed forests were replaced by monocultural commercial plantations. Also the takeover of village land used by villagers for various other purposes, and the failure to elicit community support when the schemes were initiated, led to widespread local hostility and resistance. Women typically did not feature in such schemes, or at best were caretakers in tree nurseries with little say in the choice of species or other aspects of the project. Community forestry schemes also had a high failure rate in the early 1980s, in the absence of effective institutional mechanisms to ensure village participation in decision-making and the equitable distribution of costs and benefits. The real 'success' story of that period, with plantings far exceeding targets, was that of 'farm forestry' practised by the richer farmers who in many regions sought to reap quick profits by allotting fertile crop land to fast-growing commercial varieties, eucalyptus again being a great favourite. As a result, in several regions, employment, crop output, and crop residues (also used for fuel) declined, sometimes dramatically (Agarwal, 1986a). Only in the late 1980s (as discussed further below) do we see a noticeable recognition by the State of the *positive* role that local communities could play in the regeneration of forests and VCs.

Parallel to the process of statization has been the growing *privatization* of community resources in individual (essentially male) hands, especially since the 1950s. Customarily, large parts of village common lands, particularly in northwest India, were what could be termed 'community-private': they were private in so far as use rights to them were usually limited to members of the community and were therefore exclusionary, but they were communal in that such rights were often administered by a group rather than by an individual (Baden-Powell, 1957; Bromley and Cernea, 1989). Over time, these resources have become increasingly 'individual-private'.

Between 1950 and 1984 VCs declined by between 26 and 63 per cent across seven states (Table 2). Population pressure apart, this can be attributed mainly to State actions (which served to benefit selected groups over others), such as the legalization of illegal encroachments by influential farmers, the auctioning of parts of VCs to private contractors for commercial exploitation, and the distribution of common land to individuals under various land reform and anti-poverty schemes which were intended to benefit the poor but in practice benefited the well-off (Jodha, 1986). For sixteen of the nineteen districts in the seven states studied by Jodha, the share of land obtained by the poor was less than that of the non-poor (Table 2). Hence the poor lost out collectively while gaining little individually.

The statization and privatization of communal resources not only altered the distribution of available resources in favour of a few. They also systematically undermined traditional institutional arrangements of resource use and management, where these existed. Many traditional methods of gathering firewood and fodder were typically not destructive of

Table 2. Distribution of Village Common Land to Individual Households in Different Regions

State and Districts	VCs as a per cent of village area 1982-84	Per cent decline in VC area 1950-84	Per cent of land to			Per cent of recipients among the			Per household area owned (ha)				
			Poor		Others	Poor	Others	Poor		Others			
			Before <sup>1</sup>	After <sup>2</sup>	Before	After	Before	After	Before	After			
<i>Andhra Pradesh</i>													
Mahbubnagar	9	43	50	50	76	24	0.3	0.9	3.0	5.1			
Medak	11	45	51	49	59	41	1.0	2.2	3.1	4.6			
<i>Gujarat</i>													
Bamaskantha	9	49	18	82	38	62	0.8	2.0	5.4	8.8			
Mehsana	11	37	20	80	36	64	1.0	1.7	8.0	9.8			
Sabarkantha	12	46	28	72	55	45	0.5	1.1	7.0	9.8			
<i>Karnataka</i>													
Bidar	12	41	39	61	64	36	1.0	2.0	6.4	9.2			
Gulbarga	9	43	43	57	60	40	0.8	2.4	4.5	7.7			
Mysore	18	32	44	56	67	33	0.9	1.9	4.1	11.6			
<i>Madhya Pradesh</i>													
Mandsaur	22	34	45	55	75	25	1.2	2.5	7.7	12.4			
Raisen	23	47	42	58	68	32	1.3	2.2	6.2	9.0			
Vidisha	28	32	38	62	48	52	1.3	2.5	4.9	6.8			
<i>Maharashtra</i>													
Akola	11	42	39	61	58	42	1.0	1.6	3.1	4.6			
Aurangabad	15	30	30	70	42	58	1.1	2.2	6.4	6.3			
Sholapur	19	26	42	58	53	47	0.7	2.2	3.4	5.6			
<i>Rajasthan</i>													
Jalore	18	37	14	86	37	63	0.3	1.7	7.2	12.5			
Jodhpur	16	58	24	76	35	65	0.4	1.3	2.3	3.8			
Nagar	15	63	21	79	41	59	1.3	2.5	2.4	5.2			
<i>Tamil Nadu</i>													
Coimbatore	9	47	50	50	75	25	0.8	2.5	3.8	5.8			
Dharmapuri	12	52	49	51	55	45	1.0	1.9	4.6	7.5			

Notes: <sup>1</sup>before the distribution of VC land.  
<sup>2</sup>after the distribution of VC land.  
 Source: Jodha (1986).

nature.<sup>5</sup> Some religious and folk beliefs also helped protect trees, as in the sacred groves still found in parts of India.<sup>6</sup> Although much more documentation is needed on the regional spread of these resource management systems, it seems clear that where they existed, as they did in many areas, responsibility for resource management was linked to resource use through local community institutions. When control over these resources passed from the community to the State or to individuals, this link was effectively broken. The shift in control, in turn, added to environmental degradation.<sup>7</sup> In particular, property rights vested in individuals proved no guarantee for environmental protection. Indeed, as noted, individual farmers seeking quick returns in the early 1980s typically planted the fast-growing eucalyptus which many argued was environmentally costly.

Aggravating these trends toward deforestation and VC decline have been other factors, including population pressure, the expansion of agriculture at the expense of forests and pastures, large hydro-electric schemes, and so on (see Agarwal, 1991, for elaboration). The adverse implications of all these processes, however, have been far from uniform; they have been felt particularly by poor rural households, and especially by the female members of such households, for reasons and in ways discussed below.

## 2. CLASS-GENDER EFFECTS OF ENVIRONMENTAL DECLINE

### *Class and Gender Specificity*

Rural households have always depended on VCs and forests for a wide variety of items essential to personal use or sale. Fuel, fodder, fibre, food items, small timber, manure, bamboo, medicinal herbs, oils, materials for housebuilding and handicrafts, resin and gum, are just a few of the products obtainable from such sources.<sup>8</sup> Firewood, in particular — the single most important source of domestic fuel in rural South Asia (providing 65 per cent or more of the domestic energy in large parts of north India, and 95 per cent

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5. On communal management of forests and VCs, see Gadgil (1985), Guha (1985) and Moench (1988). On firewood gathering practices, see Agarwal (1986a, 1987): firewood for domestic use in rural households was customarily collected in the form of twigs and fallen branches, which did not destroy the trees. Fifteen years ago an estimated 75 per cent (and 100 per cent in some areas) of firewood used domestically in rural northern India was in this form.
  6. Gadgil and Guha (1992), Viegas and Menon (1991), and personal observation in northeast India in 1989.
  7. See Baland and Platteau (1994) and Bromley and Cernea (1989) for useful discussions on the relationship between different property rights regimes and environmental protection. Also see Dasgupta and Maler (1990).
  8. See Fernandes and Menon (1987), KFRI (1980), Sarin (1995) and Viegas and Menon (1991).

or more in Nepal) — is mostly gathered and not purchased (Agarwal, 1987). Moreover, several million villagers in India (estimated at about 30 million some fifteen years ago: Kulkarni, 1983) depend wholly or substantially on non-timber forest products for a livelihood, a source of survival that proves especially critical during lean agricultural seasons and acute food shortage contexts such as during drought (Agarwal, 1990).

Although all rural households use the VCs to some degree, for the poor they are critically important because of the unequal distribution of private land in the country (Agarwal, 1994). In Jodha's (1986) study of twelve semi-arid districts in seven states in the 1980s, VCs accounted for 9–26 per cent of total income among poor rural households but only 1–4 per cent of total income among the non-poor (see Table 3). The landless and land-poor are especially dependent on the commons for fuel and fodder: VCs provide over 90 per cent of their firewood and 69–89 per cent (varying by region) of their grazing needs, compared with the relative self-sufficiency (from private land) of landed households (Jodha, 1986). VCs also reduce income inequalities between poor and non-poor rural households; and there is a close link

*Table 3. Average Annual Income Derived from Village Commons by Poor and Non-poor Households (1982–85)*

State and Districts	Per household annual average income from village commons			
	Poor households <sup>1</sup>		Other households <sup>2</sup>	
	Value (Rs.)	Per cent of total household income	Value (Rs.)	Per cent of total household income
<i>Andhra Pradesh</i>				
Mahbubnagar	534	17	171	1
<i>Gujarat</i>				
Mehsana	730	16	162	1
Sabarkantha	818	21	208	1
<i>Karnataka</i>				
Mysore	649	20	170	3
<i>Madhya Pradesh</i>				
Mandsaur	685	18	303	1
Raisen	780	26	468	4
<i>Maharashtra</i>				
Akola	447	9	134	1
Aurangabad	584	13	163	1
Sholapur	641	20	235	2
<i>Rajasthan</i>				
Jalore	709	21	387	2
Nagaur	831	23	438	3
<i>Tamil Nadu</i>				
Dharmapuri	738	22	164	2

Notes: <sup>1</sup>landless households and those owning <2 ha dryland equivalent.

<sup>2</sup>those owning >2 ha dryland equivalent.

Source: Jodha (1986).

between the viability of small farmers' private property resources and the availability of common property resources for grazing or fodder collection (Jodha, 1986; also see Blaikie, 1985).

There is, however, a gender specificity to the importance of these communal resources, over and above their class significance. To begin with, in many parts of India there is a systematic bias against women and female children in the intra-household distribution of subsistence income controlled by men, including that used for health care and food, as revealed in anthropometric indices, morbidity and mortality rates, and especially the sex ratio (Agarwal, 1984). These differences are markedly acute in northwest India, but are found in some degree in most regions.<sup>9</sup> Further, where both women and men control resources, women especially in poor households are noted to spend their incomes mainly on the family's basic needs and men in greater part on personal needs (Agarwal, 1994; Mencher, 1989). Hence resources in the hands of male household heads cannot be assumed to benefit women and children in equal degree, and women's direct access to economic resources (private and communal) assumes particular importance. In the case of female-headed households with little or no male support (estimated to be about 20 per cent of households in India) the link between direct resource access and physical well-being needs no emphasis.

There are, however, significant inequalities in men's and women's access to private property resources, leading to women's much greater dependence on common property resources. For instance, the most important productive resource in rural economies — agricultural land — and associated production technology, is concentrated largely in male hands (Agarwal, 1994). Women are also systematically disadvantaged in the labour market, with fewer employment opportunities, lesser occupational mobility, lower levels of training, and lower payments for the same or similar work, compared with men (Agarwal, 1984, 1986b; Bardhan, 1977). Due to the greater task-specificity of their agricultural work (women are mostly concentrated in transplanting, weeding, and harvesting), they face sharper seasonal fluctuations in employment and earnings than do men, and have less chance of finding work in the slack seasons (Agarwal, 1984; Ryan and Ghodake, 1980).

Because of their limited rights in private property resources and fewer other avenues of livelihood, common property resources, such as VCs, have been for rural women (especially those of tribal, landless or landpoor households) one of the few independent sources of subsistence. As noted, rights in VCs were customarily linked to membership in the village community, and women were therefore not excluded as they typically have been from the ownership of individualized private land. Communal resources acquire additional im-

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9. Sex ratios are particularly female-adverse in the agriculturally prosperous northwestern states of Punjab and Haryana. On the causes of the regional variation see Agarwal (1986b) and Miller (1981).

portance in regions with strong norms of female seclusion (as in northwest India), where women's access to the cash economy, to markets, and to the market place itself, is constrained and dependent on the mediation of male relatives. While these constraints leave women of poor households particularly vulnerable, those in well-off households are also not immune, since in the absence of personal assets they too face the risk of impoverishment in case of widowhood or marital breakdown (Agarwal, 1994).

In addition, and most importantly, there is a pre-existing gender division of labour. It is women in poor peasant and tribal households who do most of the gathering and fetching, especially of fuelwood and other non-timber products from forests and VCs. Tribal women, in particular, are major gatherers of non-timber forest items for consumption or sale. An estimated 70 per cent of such products are collected in the tribal belts of five states: Bihar, Maharashtra, Madhya Pradesh, Orissa, and Andhra Pradesh (Kaur, 1991: 43).<sup>10</sup> Men of small and poor peasant households, by contrast, have tended to draw on the commons much more for timber, including small timber to make agricultural implements, and materials for housebuilding. These pre-existing gender differences and inequalities impinge radically on who bears the major burden of deforestation and declining VCs.

### *Implications for Poor Rural Women*

First, as the main gatherers of fuel, fodder and water, it is primarily women's working day (already averaging ten to twelve hours) that lengthens with the decline in forests and VCs. In recent years, there has been a notable increase in firewood collection time, in small degree in some regions, dramatically in others (see Table 4).<sup>11</sup> Fodder shortages are even more acute. My survey in Rajasthan, Gujarat, and the Kumaon region of the Uttar Pradesh hills in 1993–4, indicates not only an increase in the fodder collection time but a growing dependence on market purchase.<sup>12</sup> Moreover, in regions where grazing is still possible, twenty years ago it was boys and/or men who usually took the animals out; now (as in the Kumaon village) girls are more often sent to supervise grazing while their brothers attend school. Over time this shift could widen the gender gap in literacy in such areas.

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10. It is not clear whether the northeastern states have been taken into account in Kaur's calculations.

11. In the early 1980s, in parts of Gujarat, even a four or five hour search was found to yield little apart from shrubs, weeds, and tree roots which do not provide adequate cooking energy (Nagbrahman and Sambrani, 1983).

12. In the Kumaon village, 84 per cent of the sample households reported purchasing part of their fodder now, but only 8 per cent said they did so two decades ago. The number of large animals that rural households can afford to keep has also fallen in all the regions surveyed, with the decline in grazing lands and the hike in fodder prices.

Table 4. Time Taken and Distance Travelled for Firewood Collection in Different Regions

State/region	Year of data	Firewood collection <sup>1</sup>			Data source
		Time taken	Distance travelled		
<b>Bihar</b> (plains)	c. 1972	NA	1–2 km/day	}	Bhaduri & Surin (1980)
	1980	NA	8–10 km/day		
<b>Gujarat</b> (plains)	1980	once every 4 days	NA	}	Nagbrahman & Sambrani (1983)
	1980	once every 2 days	4–5 km		
	1980	4–5 hr/day	NA		
<b>Karnataka</b> (plains)	NA	1 hr/day	5.4 km/trip		Bathivala (1983)
<b>Madhya Pradesh</b> (plains)	1980	1–2 times/week	5 km		Chand & Bezboruah (1980)
<b>Rajasthan</b>	1986	5 hr/day (winter)	4 km	}	author's observation in 1988
	1970s	1.9 hr/journey	1.9 km		
	1990s	2.1 hr/journey	2.1 km		
<b>Uttar Pradesh</b>	1982	5 hr/day <sup>2</sup>	over 5 km	}	Swaminathan (1984)
	1982	4 hr/day			
	NA	5 hr/day	10 km	}	Agarwal (1983)
	1982	3 days/week	5–7 km		
	1970s	1.6 hr/journey	1.6 km	}	Folger and Dewan (1983)
	1990s	3–4 hr/journey	4.5 km		

Notes: <sup>1</sup>firewood collected mainly by women and children.<sup>2</sup>average computed from information given in the study.

NA: Information not available.

Second, the decline in items gathered from forests and VCs has reduced incomes both directly and indirectly, the latter because the extra time spent in gathering reduces time available to women for crop production. This can adversely affect crop incomes,<sup>13</sup> especially in hill communities where, due to high male outmigration, women are often the primary cultivators. Similar negative implications for women's income arise with the decline in grazing land and associated fodder shortage. Also, with the erosion of other sources of livelihood, the selling of firewood has been common for many years now, especially in eastern and central India. Most 'headloaders', as they are called, are women, barely eking out a living (Bhaduri and Surin, 1980; Kaur, 1991). With thinning forests, however, such activity is becoming increasingly non-sustainable, even as it exacerbates the problem of deforestation.

Third, as the area and productivity of VCs and forests fall, so do the contributions of gathered food in the diets of the rural poor. In addition, nutrition suffers with fuelwood shortages as households economize on fuel in various ways, such as by shifting to less nutritious foods which can be eaten raw or need less fuel to cook, or by eating partially-cooked food which could prove toxic, or eating leftovers which could rot in a tropical climate, or missing meals altogether.<sup>14</sup> A trade-off between the time spent in fuel gathering rather than cooking can also adversely affect the meal's nutritional quality. Although these nutritional consequences affect all household members in some degree, women and female children bear the greater burden because of the noted gender biases in intra-family distribution of food and health care. Nutritional inadequacies in turn have health consequences.

Fourth, large-scale deforestation disrupts social support networks with kin and other villagers. These networks, built up mainly by women, are important for tiding poor households over periods of scarcity, and provide support in times of need, such as reciprocal labour-sharing arrangements during peak agricultural seasons, and loans in cash or kind (small amounts of food, fuel, etc.) (Agarwal, 1990).

Fifth, gathering food and medicinal items demands an elaborate knowledge of the nutritional and medicinal properties of plants, roots, and trees, including edible plants not normally consumed but critical for surviving periods of prolonged food shortages, as during drought (Agarwal, 1990). Such 'famine foods' are gathered mainly by women and children. The degradation of forests and VCs and their appropriation by a minority is destroying the material basis on which such indigenous knowledge of natural resources is founded and kept alive, leading to its gradual eclipse. This, in turn, could further undermine the ability of poor households to cope with subsistence crises.

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13. Kumar and Hotchkiss (1988) report this for Nepal.

14. This last was observed in Bangladesh in the early 1980s (see Howes and Jabbar, 1986).

Of course the implications outlined above vary in strength across India, since there are distinct regional differences in the extent of environmental vulnerability, incidence of poverty, and gender bias. Rural women are worst off in regions where all three forms of disadvantage are strong and reinforce each other, as in parts of northern India. Women are less badly off where all three forms of disadvantage are weak as in much of southern and north-eastern India. But the effects are felt in some degree in most regions of the country (Agarwal, 1995).

Against this backdrop it becomes especially important to understand the gender implications of recent initiatives for protecting and regenerating forests and VCs, and to examine women's own responses to the acute scarcity of firewood, fodder and other gathered products.

### **3. EMERGENT COMMUNITY INSTITUTIONS FOR FOREST MANAGEMENT**

Forest management initiatives taken in recent years by the State or by village communities can broadly be classified into four categories: the Government-initiated Joint Forest Management (JFM) programme; Autonomous Initiatives; Mixed Initiatives (State-cum-autonomous); and People's Movements. The main features of each are outlined below.

#### *Government-initiated JFM Programme*

The basic idea behind this programme is to establish a partnership between the state forest department and village communities, with a sharing of responsibilities and benefits. Although the earliest such initiatives were catalysed by two district forest officers in West Bengal in the early 1970s, these remained isolated cases until the late 1980s when there was rapid informal expansion.<sup>15</sup> In 1989 a formal policy was approved by the state government, following the proven success of forest protection by villagers in the noted districts (Poffenberger, 1990). Subsequently, on 1 June 1990, a central government circular spelt out the government's new national policy for the involvement of village communities across the country for reviving degraded forest lands.

To date, sixteen states have passed JFM resolutions; this leaves Kerala in the south and all the states, except Tripura, in the northeast. The resolutions allow the participating villagers free access to most non-timber forest

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15. In 1988 there were an estimated 1300 forest protection committees (FPCs) in three districts: Midnapore, Bankura and Purulia. Even today West Bengal has the largest JFM coverage: an estimated 350,000 ha of forest area is being protected by some 2350 FPCs (SPWD, 1994).

products and to 25–50 per cent (varying by state) of the mature timber when finally harvested. On their part, villagers are responsible for protecting the forests by forming an organization, typically a Forest Protection Committee (FPC). However, eligibility rules for membership in the FPCs vary considerably: some states allow all village residents to be members, others allow membership to only one person per household, and so on (see Table 5). These rules have important gender implications that are traced later. From among the FPC members a few are elected to an Executive Committee (or Managing Committee) which also usually includes the village council head and some others (varying by state).

No comprehensive figures are available for the area under JFM, but data for five states (Gujarat, Haryana, Jammu,<sup>16</sup> Orissa, and West Bengal), indicate that in 1992, 0.6 million ha of forest land were being protected by 4486 FPCs (SPWD, 1994). In some cases, state governments have worked in conjunction with NGOs (or vice versa) as catalysts in the formation of these committees.

Table 5. Forest Protection Committees under JFM:<sup>1</sup> Membership Conditions

Membership conditions	States
One person per household	Bihar, Karnataka, Maharashtra, Tripura
One adult per household	Jammu and Kashmir, Uttar Pradesh
One adult male and one adult female per household	Andhra Pradesh, Himachal Pradesh, Madhya Pradesh, Orissa, West Bengal <sup>2</sup>
One male and one female per household	Tamil Nadu
All village adults	Haryana
All village residents	Rajasthan <sup>3</sup> and Gujarat
Not clear	Punjab

Notes: <sup>1</sup>in some states, FPCs also take the form of cooperative societies or general bodies.

<sup>2</sup>in West Bengal, if the husband is a member the wife automatically becomes a member.

<sup>3</sup>for plantations on common lands, however, only one person per household can be a member.

Sources: SPWD (1994); *Wastelands News* (1993–4); 4 Jan 1995 'Order' for Madhya Pradesh; personal communication from Sushil Saigal (SPWD Staff) on Uttar Pradesh.

### *Autonomous Forest Management Initiatives*

Parallel to and often prior to the JFM initiatives, numerous self-initiated forest management groups have emerged in several states, catalysed by local leaders or NGOs. Enormously diverse in form and structure, these autonomous groups have been formed primarily in areas where people are

16. Excluding the Kashmir part of Jammu and Kashmir.

still strongly dependent on forests and have a long-standing tradition of community resource management (Sarin, 1995). The groups are present in largest numbers in Bihar and Orissa and to a lesser extent elsewhere as in Gujarat, Rajasthan, Karnataka and Madhya Pradesh. Their organizational set-up varies, taking the form of groups of village elders, village councils, forest protection committees, village-based voluntary organizations, youth clubs, and so on (Kant et al., 1991). Over time, some of these groups have registered with the forest department, but most remain autonomous, without official standing but with tacit village sanction to punish offenders, including by the imposition of fines.

There are no exact figures on the number of such groups in different states or their area of coverage. But some close observers estimate that in mid-1992 there were about 10,000 community institutions (including both JFM and autonomous groups) protecting some 1.5 million ha of forest land in ten states (Singh and Khare, quoted in Sarin, 1995).

### *Mixed Forest Management Initiatives*

A diversity of initiatives that are operating in conjunction with the State or as autonomous units could be classified under this category. In particular, however, I am referring to cases where formal State initiatives have become effectively defunct for whatever reason, and a range of protection groups in the form of Mahila Mandal Dals<sup>17</sup> (women's associations) have emerged instead. A good example is van panchayats (forest councils) established by the colonial government around 1931, some of which have been revived in the 1980s by local NGOs.

Van panchayats (VPs) were established after local communities had agitated for a long time against the colonial government's curtailment of their rights to forest produce and use. A committee set up in 1921 to examine people's grievances recommended that forests be reclassified and forest councils be formed to manage parts of them. The government subsequently reclassified forests into two categories. Class I forests were those judged to have little of commercial value but to be important as watersheds and as sources of fuel and fodder to local communities. These were placed under the revenue department. Class II forests were those containing commercially valuable timber species; these were placed under the forest department. In addition there were the 'civil forests', which were forests that fell within village boundaries; these were informally managed by villagers but formally came under the revenue department's control. It is essentially from Class I forests and civil forests that VPs were subsequently formed in the 1930s. In 1985 there were an estimated 4058 VPs covering about 0.4 million ha

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17. These are also termed Mahila Mangal Dals in some regions.

(or 14 per cent) of forest area in five districts of the Uttar Pradesh hills (Ballabh and Singh, 1988).

Typically consisting of between five and nine members elected from the village (or villages) falling in their jurisdiction, the VPs are responsible for preventing encroachments and devising rules for forest use (Ballabh and Singh, 1988). The VP committees are authorized to collect fees from users, and levy fines on offenders. Most hire watchmen. But this structure is subject to the administrative and technical control of the revenue and forest departments.

Most VPs have been relatively ineffective, with infractions being high. Typically VP committees are constituted entirely of men. In recent years, however, Mahila Mandal Dals have emerged in some regions as independent bodies which are often neither answerable to nor integrated with the VPs, but which are doing the effective work of protection and reporting offenders to the formal VP body. In rare cases, all-women VPs can be found.<sup>18</sup>

### *People's Movements*

More loosely structured than any of the above are people's movements for forest protection, the most publicized being the Chipko movement initiated in 1973 in the hills of Garhwal (Uttar Pradesh). The movement began as an attempt by local people to stop indiscriminate commercial exploitation of the region's forests, 95 per cent of which are owned by the government and managed by the forest department. The specific incident which sparked the movement was the successful resistance by the people of Chamoli district against the auctioning of 300 ash trees to a sports goods manufacturer, while the local labour co-operative was refused government permission to cut even a few trees to make agricultural implements for the community. Since its inception the movement has spread within the region, but equally important, its methods and message have reached many parts of the country and outside, in some cases inspiring lesser known movements such as Appiko in Karnataka.

### *General Features of these Initiatives*

Although in most states the emergent community initiatives are too new (five years or less for many JFM schemes) to make generalizations possible, in broad terms, they have typically arisen among communities which are highly dependent on forest resources and are facing considerable scarcities, sometimes due to acute degradation of the resource base. Most involve

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18. Personal communication, Chandi Prasad Bhatt, 1995.

tribal or hill populations that are relatively less socially and economically differentiated.<sup>19</sup> And while some groups, as noted, are formally registered with or formed through the forest department, others have no official standing.

In terms of regeneration, there have been some notable successes. Where the tree rootstock is undamaged, natural regeneration begins at an encouraging pace, often yielding a good harvest of grass within the first year of protection, and fuelwood through cutback operations within a few years. Several protected tracts which I visited in March 1995 showed impressive natural regeneration. For instance, when Malekpur village (Sabarkantha district, Gujarat) began community forest management in 1990, with the encouragement of an NGO, VIKSAT (Vikram Sarabhai Center for Science and Technology), and registered a Tree Grower's Co-operative Society, the protected area consisted of little more than barren hillsides, from which it was difficult to obtain much except dry twigs and monsoon grass. However, it had a strong rootstock, and by 1995 a young forest had sprung up, with teak trees of ten to twelve feet, interspersed with other species. In the 1994 monsoon season there had also been a substantial harvest of grass. And in early 1995, thinning and pruning operations yielded enough firewood for domestic use to last every participating village household some five months. Similarly, in the Baruch district of Gujarat, where another NGO, AKRSP (Agha Khan Rural Support Group), has served as a catalyst, several protected forest tracts that I visited in 1995 showed impressive natural regeneration. Biodiversity was also reported to have increased. A number of other case studies report similarly encouraging returns after protection, and a decline in seasonal migration.<sup>20</sup>

Undeniably there are also cases of serious conflict (especially inter-village) and failure, and the factors which account for success or failure need more

19. Among specific case studies which highlight resource scarcity and relative socio-economic homogeneity as conducive to successful group action for forest protection are those by Kant et al. (1991) for Orissa; and Sarin and SARTHI (1994) for Gujarat.
20. In Gamtalao Khurd village (east Surat district, Gujarat) villagers harvested twelve tons of firewood and fifty tons of fodder from cleaning operations after about a year of protection. They also report adding forty-seven milch animals to their herds (Arul and Poffenberger, 1990). In Pingot village (Gujarat) where AKRSP is working, in 1987-8, soon after protection began, the villagers were able to earn Rs. 11,000 from grass sales (*ibid.*). In Dhenkanal district (Orissa), tribal women can now get supplementary employment from leaf-plate making for six months of the year (Kant et al., 1991). In 1989, in Tiring village (West Bengal), thinning operations in the protected area yielded 344 cart loads of leaves and twigs. Of this 25 per cent was distributed to the villagers free of cost and the rest sold to them at a low price. Seasonal migration from the region has also fallen to half (Viegas and Menon, 1991). For further information on the benefits reaped from protection under JFM, see Raju et al. (1993), and SPWD (1994). Some van panchayat villages in Nainital district (Uttar Pradesh) studied by Mansingh (1991) similarly report that grass yield doubled after a year of protection, and thinning the dense shrub provided firewood.

probing. But a study of some forty-two FPCs in Midnapore district of West Bengal — the state with the longest-standing JFM programme — is indicative. Here Malhotra et al. observe (1990: 22–23):

The most effective FPC is when a single village is involved in the management of the forest, its ethnic composition is tribal, a majority of the households in the village become members of the FPC and . . . forest land is allowed to regenerate rather than afforested with plantations. In contrast, the least effective FPC is one which is managed by several villages, has a mixed population of tribes and castes, only a few households in the villages become FPC members, and the forest land is put under plantation rather than natural regeneration.

#### 4. THE GENDER GAP IN EMERGENT INSTITUTIONS

The question, however, remains: have the communities which have displayed impressive results in protection and 'greening' been as successful in ensuring gender equity in control over common property resources and in the sharing of benefits? To answer this, we need to examine women's participation in the decision-making fora of the emergent community initiatives, for instance, women's presence and voice in FPCs and executive councils which make the rules about responsibility and benefit sharing. We also need to consider the implications of such participation (or its lack) for the effectiveness of protection and regeneration activities, for the distribution of burdens and benefits from them, and for women's empowerment.<sup>21</sup>

Effective participation would involve women's formal membership in management committees, their attending meetings where they are members, and their views being given weight in the meetings they attend. In terms of women's formal membership, whether in JFM schemes, autonomous initiatives, or VPs, the overall picture to date is discouraging, with some notable exceptions, discussed later. In several JFM states which allow FPC membership to only one person per household, women are effectively excluded since inevitably a man is the member. But even where they are not so excluded, women's numbers are low. In West Bengal's Midnapore district, out of 8158 members in 72 FPCs, only 241 (3 per cent) are women, mostly widows (Roy, Mukerjee and Chatterjee, c. 1992). In Barsole and Lekhiasole villages (also in Midnapore district), where the FPCs have 44 and 303 members respectively, the first has only two women and the second seventeen, most of them again being widowed heads of household (Guhathakurta and Bhatia, 1992). In Tamil Nadu, of the 22,561 members in 2594 FPCs, only 7 per cent are women (Narain, 1994). Orissa's self-initiated groups also typically exclude

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21. In communities which are highly stratified by caste and class, similar questions would arise also at the household level in relation to the poor and landless. But, as noted, most of the initiatives discussed here relate to hill and tribal communities where such stratification, while not entirely absent, is relatively limited. Gender-related concerns, however, remain prominent, and are the focus here.

women (Kant et al., 1991; Singh and Kumar, 1993); and most VPs in Uttar Pradesh have few or no women members (Ballabh and Singh, 1988; Sharma and Sinha, 1993).

Membership apart, to participate in decision-making women need to attend and be heard in committee meetings. For the reasons discussed further below, meetings are usually attended by few women; those that are present rarely speak out; and when they do speak their views are seldom taken seriously. Within this rather negative scenario, there are also cases of vocal women being present in notable numbers in some forest protection initiatives. These cases, which are described later, can provide pointers on how women's participation could be increased. But let us first consider why it is important that women participate in their own right.

Women's membership in forest protection initiatives and their effective participation (or its lack) in the decision-making fora, impinge on at least three crucial aspects: entitlements, efficiency, and empowerment.

### *Entitlements and Welfare Considerations*

A household's entitlement to a share in the benefits from protection is linked to membership in the forest protection initiatives. To be sure, women could benefit in some degree by virtue of belonging to households where men are members. For instance, where degradation is not acute, member households continue to enjoy the rights of collecting dry wood or leaves from the protected area.<sup>22</sup> Also some FPCs under JFM have given very poor women special consideration in allowing them to collect leaves for plate making (Arul and Poffenberger, 1990). But for several reasons, benefits mediated through male members have welfare disadvantages compared with women's direct membership and participation in the decision-making processes.

First, in many villages in Gujarat, West Bengal, Bihar, and Orissa, when protection began women were barred from any form of collection, even of dry twigs. Where the land was barren anyway this caused no extra hardship. But where women were earlier able to fulfil at least a part of their needs from the protected area, the ban on entry imposed by all-male protection groups has made it necessary for women to travel to neighbouring unprotected areas, spending many extra hours and also risking humiliation as intruders.<sup>23</sup> In some protected sites in Gujarat in 1993 and West Bengal in 1994, Sarin (1995) found that women who prior to protection spent one to two hours for

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22. For Orissa, see ISO/Swedforest (1993), Kant et al. (1991) and Pati et al. (1993); for Gujarat see Arul and Poffenberger (1990). As noted earlier, in some villages tribal women now have part-time employment from mat weaving and leaf-plate making through the raw material they collect from the protected forests (Kant et al., 1991).

23. See Narain (1994); Sarin (1995); Shah and Shah (1995); Singh and Kumar (1993); also personal observation in Gujarat.

a headload of firewood now spend four to five hours, and journeys of half a kilometre have in some cases lengthened to eight or nine kilometres.

Similarly, during my field visit to Gujarat's Sabarkantha district, several women said that they were not allowed even to walk through the protected area to the neighbouring one for fuelwood collection, on the grounds that they would break the rules. They were thus forced to skirt the area and spend several additional hours on their journeys (see box). In Pingot village (Baruch district, Gujarat), Shah and Shah (1995) found that since protection began women are compelled to take their daughters along to help with

**EXCERPTS FROM THE AUTHOR'S INTERVIEWS WITH VILLAGE WOMEN FROM SABARKANTHA DISTRICT (GUJARAT), 25 March 1995**

Q: On what issues do women and men differ in FPC meetings?

A: Women face the problem of firewood. Because women protect the forest they should get some benefit from it. Men can afford to wait for a while because their main concern is timber. But women need fuelwood daily. When we ask for permission to take dry twigs men say: what is the guarantee that you won't cut green branches? You might cut more. The men don't listen to us. We can collect some fallen twigs and leaves for only ten days. The forest is closed for the rest of the year.

Q: What do you do then?

A: At the moment it is closed, so we use crop stalks, cattle dung, kerosene. Some have biogas.

Q: What did you do before the closure?

A: We used to go to the Rajasthan border for fuelwood. The route was through our own forest. On the return journey we would pick up dry wood from our forest.

Q: Do you go to Rajasthan now?

A: No we can't now, because the route through our forest is blocked. From our forest, we are only allowed to get dry wood for ten days in the winter. That's all. We collect enough for two to three months. But in the monsoon we don't know what we will do. Last year they gave us special permission to collect for ten additional days. This year we are hoping for permission again.

Q: Will you get permission?

A: At the last parishad meeting they told us they won't give us permission.

Q: If you don't get permission what will you do?

A: We can only call a women's meeting and talk to the men and put forward our problem. We will say: we have to cook, we have no wood. So what now?

collection, spending over six hours a day to walk five times farther, for the same quantity of fuelwood. Over time this could negatively affect the girls' education. When asked to comment on a recent award for environmental conservation conferred on the village, the women expressed only resentment: 'What forest? We don't know anything about it now. We used to go to the forest to pick fuelwood but ever since the men have started protecting it they don't even allow us to look at it!' (Shah and Shah, 1995: 80).

These gender-specific hardships have typically surfaced where women are not members of protection committees and therefore did not participate in the initial formulation of rules. The household's everyday requirement of fuel and fodder, which is women's relentless responsibility, was therefore bypassed; what received attention was the sporadic need for small timber to construct and repair houses or make implements (which are men's responsibilities), and the potential cash returns from large timber.

In some instances, interventions by NGOs remedied the situation once women brought it to their notice, leading to cutback operations which yielded substantial firewood per household. For instance, in Malekpur village (Sabarkantha district, Gujarat), where some women say their head-load collection time had increased from an hour or two to a whole day, a meeting organized by VIKSAT with the Tree Grower's Co-operative Society (which was doing the protection), led to cutback operations in 1995. This yielded both firewood and fodder. Some households, which could afford it, also switched to biogas. But the hardship in the interim years was borne solely by women.

Also, in some of the autonomous initiatives, all-male youth clubs which are protecting the forests have not only banned entry completely, they have been selling (rather than distributing) the forest products obtained from thinning and cleaning operations. Poor households which cannot afford to buy firewood and other forest products are the worst sufferers of this policy, with the burden again falling disproportionately on women. As one woman commented: 'Earlier it was the forest department which controlled the forest, now it is the youth clubs' (Singh and Kumar, 1993: 23).

Second, cash benefits from protection, generated say through the sale of timber or grass, are often put into a collective fund, rather than being distributed to member households. How that fund gets spent again depends on the male representatives in the protection committees. In the late 1980s some youth clubs undertaking protection in Orissa made substantial gains (in some cases up to Rs. 25,000) from the sale of forest products obtained during cleaning-up operations in the protected areas. Although in one instance the money was reportedly used for a school building, in some others it was spent on constructing a clubhouse or for club functions (Singh and Kumar, 1993).

Even if such money were distributed to the participating households through the male members, cash given to men does not guarantee equal sharing within the family. In West Bengal, for instance, the daily wages paid

by the forest department during the period of planting, and the income from the subsequent sale of trees, is usually given to the male household head even where the family works as a group. Guhathakurata and Bhatia (1992) found that the men in one village had used the money from timber sales to buy additional land and in another village for gambling and liquor, rather than for pressing household needs.

When the question of benefit sharing was discussed in a meeting of FPCs from three villages of West Bengal, in which both women and men were present, all the women unequivocally said that shares should be equal and separate for husbands and wives. 'There was no vote for "joint accounts" or the husband being more eligible as the "head of the household"'. These women are responsible for a major share of household sustenance and they wanted control over their share of the income' (Sarin, 1995: 90). Indeed benefits reaching the women would improve the welfare of the whole household, since poor rural women, as noted, spend mostly on family needs.

Third, 'needs' is only one criterion for the distribution of intra-household benefits. Entitlements within the household are also linked to perceptions about women's contribution and notions about rights (Sen, 1990; also Agarwal, 1994). In so far as 'perceived contribution' is an important criterion for the distribution of benefits, women seen to be participating in forest management would be better placed to claim equal benefits. Membership would give women a formal independent right in the new resource and not merely indirect benefits mediated through male members.

Fourth, membership in FPCs could lead to additional financial benefits. For instance, in the villages where AKRSP works, a part of the daily wage earnings from tree planting goes into savings funds. Where women are not members, the savings have gone into a family account (which is effectively controlled by the male household head). But in recent initiatives where, as a result of AKRSP's specific attempts to involve women, female membership is high, savings go into separate accounts for women and men, and women often make their own decisions about how they will spend this money.<sup>24</sup>

### *Efficiency Considerations*

Women's active involvement also appears necessary for the effective functioning and long-term sustainability of these initiatives. For instance, to prevent infractions, women as the main collectors of firewood and other non-timber forest products need to adhere to the rules. In some cases, male committee members have threatened their wives with beatings if they break the rules, thus reinforcing existing positions of male power (Sarin, 1995). Its reprehensibility apart, this is hardly an enforceable form of control in the

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24. Personal communication, AKRSP project officer, March 1995.

long run, given that women's collection activities fulfil a basic household need on which men also depend.

Oftentimes both women and men are aware of the importance of women's involvement in protection programmes. Britt's interviews in two villages in Nainital district (Uttar Pradesh hills) in 1992, although dealing with VP experience, also have relevance for JFM and other contexts. The VP committees in both villages include only one woman each. Britt (1993: 147) notes:

Males and females generally concur ... that if more women were to attend meetings, the workings of the forest committee would be improved. When prompted, the majority of the villagers thought that some kind of mechanism necessitating attendance by greater numbers of women, such as a 50 percent reservation policy, would provide for greater information dissemination and better implementation of forest committee rules.

In women's own words:

It would be good if women went [to forest committee meetings] ... The men don't seem to realize where fodder and fuelwood come from (cited in Britt, 1993: 143).

Women often don't even know what rules the forest committee has decided upon. If more women were on the forest committee then they could pass on the information to other women and the forest would be better protected (cited in Britt, 1993: 147).

The male members of the forest committee have difficulties implementing the rules. Women could discuss these problems with the men. Perhaps more 'mid-way' rules would be, in the long run, more effective ... more viable (cited in Britt, 1993: 148).

Despite this recognition, few women typically participate in the VPs, or in FPCs under JFM. However, it is not uncommon for them to form informal patrol groups where men's groups are ineffective (as elaborated later).

Furthermore, women's knowledge of and preference for plant species often differ from those of men. Involving women in decisions about planting and silviculture practices in the protected areas would be an effective way of ensuring that a larger proportion of household needs from the forest are taken into account, and that women's particular knowledge of plants and species enriches the selections made, thus enhancing biodiversity. In Panchmahals district (Gujarat) women's rich knowledge of medicinal herbs was important in promoting such plants in the protected area (Sarin and Khanna, 1993). In the same region, in Muvasa village, a women's group, when replanting a part of the village common land, resisted pressure from the men to plant eucalyptus for cash benefits. The women used their considerable knowledge about local trees and shrubs, and their suitability for different uses, to select diverse species instead.

### *Empowerment Considerations*

The absence of women's formal participation in the new community initiatives will reinforce pre-existing gender inequalities and further reduce

women's bargaining power within and outside the household. In contrast, participation in public decision-making fora, such as FPCs, would help reverse rural women's traditional exclusion from such fora, and also increase their self-confidence in asserting their rights in relation to public bodies in general.

In Navagaon village (Gujarat), for instance, where women constitute 50 per cent of the members in Village Development Associations and are entitled to hold separate savings accounts, they now feel they are treated more respectfully by the village men, not least because they deal with institutions such as banks themselves.<sup>25</sup> Similarly, in the Chipko struggle it is notable that, over time, as participation enhanced women's confidence, they began to demand membership in the village councils and a greater say in their decision-making processes.

More generally, numerous case studies have noted the empowering effect on women of greater control over economic resources, especially land, and of participation in the fora which control these resources, especially via groups (Agarwal, 1994).

## **5. CONSTRAINTS TO WOMEN'S FORMAL PARTICIPATION**

What then constrains women's formal participation in many of these emergent institutional initiatives? Broadly the constraints are of five types: the formal rules governing membership; traditional norms of membership in public bodies; social barriers; logistical factors; and the attitudes of forest department personnel.

First, as noted earlier, in several states the JFM resolutions allow only one member per household. This is inevitably a man, except in widow-headed households. Even where the rules allow one man and one woman per household (as in Andhra Pradesh, Himachal Pradesh, Orissa and West Bengal) other household adults remain excluded (including dependent widows and unmarried daughters). The most equitable situation would be to allow JFM membership to all village adults, as is the case in Haryana and Gujarat.

Second, traditional village assemblies and councils customarily excluded women, even among tribal (including matrilineal) communities.<sup>26</sup> In many autonomous forest-management initiatives, as in parts of Bihar and Orissa, this long-standing tradition has been replicated in the new institutions. Women are not called to meetings for conflict resolution even when the dispute directly involves them (Sarin, 1995).

Third, women face social constraints which need probing. Most studies attribute women's low attendance in FPCs and executive committees and

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25. Personal communication, AKRSP project officer, March 1995.

26. See Agarwal (1994); Venkateswaran (1992); Viegas and Menon (1991).

their not speaking up in JFM and VP meetings to ‘cultural barriers’,<sup>27</sup> but few explore what these might be. Given that a large majority of the community initiatives we have been discussing involve tribal or hill communities where there is no female seclusion, and where women’s participation in economic activities is visibly high, clearly the constraints have little to do with explicit norms of seclusion, and much to do with gender ideology, viz. the social constructions of acceptable female behaviour, notions about male and female spaces, and assumptions about men’s and women’s capabilities and appropriate roles in society.

For instance, although many of the women Britt (1993) interviewed in 1992, in the two villages, recognized that their presence in meetings would improve VP functioning, they felt they could not attend unless the men invited them, and that the men were not seriously interested in doing so:

The meetings are considered for men only. Women are never called. The men attend and their opinions or consent are taken as representative of the whole family — it’s understood (village woman cited in Britt, 1993: 148).

... male committee members are not interested in calling women to meetings even though women ... are the ones who go to the forest and do the cutting (village woman cited in Britt, 1993: 146–7).

Women’s effectiveness is also restricted by their limited experience in public speaking, illiteracy, a lack of recognized authority, or the absence of ‘a critical mass’ of women. As one woman in the VP area (cited in Britt, 1993: 143–4) said:

Only I alone cannot change procedures. If I tried to change the rules, people would think what sort of woman is she, that she has these ideas ... I am not in the habit of speaking publicly, not like other women who have worked with CHIRAG [a local NGO].

In Katuual village, the only woman member, elected to the VP several months prior to Britt’s visit, had yet to attend a meeting. Although she was interested in going to the next one, and had requested that meetings be held on Sundays when other family members were home, leaving her free to go, she felt that as the only woman, and without the acquiescence of other village women, she would be ineffective:

I discuss the forest with other women. Many times I have told outsiders not to go to the forest and cut leaves or trees. I warn them that they will be fined. Sometimes I have lied, telling them that a government officer is coming and that if they are fined in front of him then they must pay a deposit in Nainital. But all this has very little effect on the women. If they intend to collect, then they will (cited in Britt, 1993: 145).

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27. See Ahmed (1994) for Gujarat; and for West Bengal see Chatterjee (1992); Guhathakurta and Bhatia (1992); Mukerjee and Roy (1993); Roy et al. (1993).

Women also feel discouraged from attending meetings because their opinions are disregarded. One woman member of a VP committee commented as follows on the attitude of her male colleagues:

I went to three or four meetings ... No one ever listened to my suggestions. I marked my signature in the register. I'm illiterate so I couldn't tell what was written in the meeting minutes. I was told that my recommendations would be considered, but first that the register had to be signed. They were uninterested (cited in Britt, 1993: 146).

There are similar complaints about the functioning of FPCs under JFM from parts of West Bengal (Mukerjee and Roy, 1993; Roy et al., 1993). Even women who are executive committee members and attend meetings regularly, usually sit at the back as mere observers, while the points raised by male members who sit in front receive priority.

Age and marital status affect women's participation in meetings. In many of West Bengal's FPCs, the few women members are mostly widows (Guhathakurta and Bhatia, 1992; Narain, 1994). Sharma et al. (1987: 50–1) similarly note for Chipko women: 'When one looks at the profiles of a few of these women who have taken active part earlier in the prohibition movement, and later in the "Chipko" movement on a more sustained basis, they are older women or widows or single women'; and that 'young married women are more constrained by their family responsibilities and kin-based authority patterns'. The burden of work is also usually greater on young married women, especially daughters-in-law (Bahuguna, 1991; Britt, 1993).

Fourth, women's participation is often impeded by logistical constraints and double work burdens. The timing of meetings (which are often called when women are busy with other work), and women's heavy work load (childcare, housework, agricultural activities and other responsibilities) can be serious barriers:

Women are very busy with household work. If they go to the meetings, who would watch the children? It is impossible for all women to attend (village woman cited in Britt, 1993: 146).

Most hill women in VP villages told Mansingh (1991) that they did not have time to 'sit around for [the] four hours that it took to have a meeting in the middle of the day'. As a result women's attendance tended to thin out over time.

Fifth, many male forest department personnel involved with JFM are known to call only men to meetings (Roy, Mukerjee and Chatterjee, c. 1992), while there are few women among the department's personnel. In the Haryana forest department only fifteen women village forest workers were appointed as against an official provision for 300 (Narain, 1994). In four divisions of Tamil Nadu only 6 per cent of total social forestry workers are women (Venkateswaran, 1992). Women in parts of West Bengal report that male officers rarely consult them in preparing the village-level micro-plans for forest development, and some admitted to having heard about the plan only

through their husbands, or to having been consulted initially but not for revisions or updates, nor on choice of tree species (Guhathakurta and Bhatia, 1992). Women interviewed by Narain (1994) in two West Bengal villages complained that male officials discouraged them from coming to the forest office, and rebuked them if they came in the evening even on urgent business.

Elsewhere in West Bengal women complain that: 'The forest officers put very little value on what they say and always crosscheck with the men to verify the truth of their words. And if ever there is any conflict or contradiction between the women and the men, the foresters always settle the disputes in favour of the men' (Roy et al., 1993: 15–16).

Many forest department personnel see women's involvement in JFM activities as useful mainly for keeping out other women 'offenders', rather than for reasons of gender equity or for the opportunity to take advantage of women's knowledge of plants and trees. Women are seen as better able to catch female culprits, since men doing so are susceptible to being charged with molestation.

## **6. CONTRASTING EXAMPLES AND WOMEN'S INITIATIVES**

Despite these constraints there are contrasting examples where women's presence in forest protection groups is high, sometimes in the formal fora, more commonly in informal ones. These cases suggest that the 'cultural' barriers to women's participation, especially in tribal or hill communities, are not insurmountable.

First consider the formal groups. In parts of Gujarat, 30 per cent of the members in the village general body are women, and their presence in the JFM executive committees ranges between 14 per cent and 50 per cent (Narain, 1994). In a number of other recent initiatives in Gujarat, under AKRSP encouragement female membership in the FPCs has risen to 50 per cent. In parts of West Bengal's Bankura district women are doing most of the protection work: for instance, in Chiligarah village women are the members and men their nominees (Narain, 1994); and while Korapara village initially had only male members, twenty-two out of thirty-five FPC members are now women (Vieges and Menon, 1991). There are also several all-women FPCs in Bankura district (Mukerjee and Roy, 1993). Likewise, in a Bihar village in Ranchi district with a mixed population of Muslims, Hindus and Scheduled Tribes, women took the initiative of forming an FPC in 1991 when the all-male committee was ineffective in resolving conflicts and in saving the forest. The women's committee has 400–500 women members drawn from all sections of the village, covers about 490 ha of forest land, and has since been given formal recognition by the forest department (Adhikari et al., 1991). In Orissa, women in two villages approached a young forest service probationer who was also in charge of the forest range, to help them form an all-women FPC (Singh, 1993).

More commonly though, it is women's informal groups which are in effect undertaking forest protection and wasteland development. In some villages it is the failure of men's committees that has led women to form their own. In Machipada village (Baruch district, Gujarat), which falls in AKRSP's ambit, the women started their own protection group in 1994, even though an all-male group already existed. They now patrol the area in rotation with the men. My conversation with some of the women during a field visit in March 1995, threw light on this:

Q: Why don't you leave forest protection to the men?

A: We protect the forest for our children. We have an old relationship with the forest.

Q: Don't men also have such a relationship? Do women have a special relationship?

A: Yes, women do. We go there for firewood, nuts, berries, and many other items.

Q: Don't men protect well?

A: Men don't check carefully for illegal cuttings. Women keep a more careful look-out.

Q: Is there any other advantage of your forming a separate patrol group?

A: Our patrolling leads to the feeling that there is continuous protection. Now people feel everyone is taking responsibility for protection.

Q: Since you formed your own patrolling group are you treated better at home?

A: Yes, it makes a difference. Now women can explain why the forest is important. Men listen better. Now it feels like our forest.

In Rajasthan, with the help of PEDO (People's Education and Development Organization), women in several villages have established plantations and employed watchmen to guard them (Sarin and Sharma, 1991). There are also numerous success stories from across India of women's groups reclaiming village wastelands (Singh and Burra, 1993).

Again, in the Uttar Pradesh hills where, as noted, most formal VPs have few women, there are numerous cases of women's informal groups guarding the forest. In Buribana village (Nainital district) which I visited in 1993, the Mahila Mandal Dal (women's association) devised its own rules for the collection of forest produce, kept a look-out for offenders, and reported infractions to the VP head. Now women are also invited to VP meetings (although formally the VP members are all men). Elsewhere, women either guard the VP forest themselves, or employ a guard (Sharma and Sinha, 1993). It is notable that in Sharma and Singh's (1993) study of twelve VPs, the four which they deem 'robust' and successful all have active Mahila Mandal Dals. In general they attribute the success of many VPs to the presence of active Mahila Mandals, even though these women's associations

have no formal authority for forest protection: 'If the condition of the forests has improved in recent years, much of the credit goes to these women's associations' (Sharma and Sinha, 1993: 173). The associations spread awareness among women of the need to conserve forests, exert social pressure on women who violate usage rules, and monitor forest use. The importance of a Mahila Mandal co-operating with the VP lies especially in the fact that women in this region not only do most of the fuel and fodder collection, they also play a critical and highly visible role in agriculture. If they refuse to follow the rules, the men are unable to effectively enforce them. Moreover, women are in the best position to apprehend transgressors.

Here the observations of Vieges and Menon (1991: 22–3) for FPCs in West Bengal have wider relevance:

In complete contrast to their [typically low] representation in the committees, the active contribution of the women to the aims and objectives of the FPCs is . . . much more than that of the male members. This seems to be the irony of the situation in that recognition is given through official membership to the males whose contribution is much less than that of the women . . . there is no time in the day when a few women are not present in the forest. Hence, in most areas no need is even felt to appoint special patrols to guard the forests from offenders. The women invariably take on this role. Whenever they spot an offender it is they who apprehend him/her directly . . .

Women's participation in movements such as Chipko is again illustrative. Although mobilization and protest in the movement have been typically situation-specific, in some Chipko areas women have formed vigilance teams against illegal felling and are monitoring the use of the local forest. Moreover, Chipko women have protested against the commercial exploitation of the Himalayan forests not only jointly with the men of their community but on occasion even in opposition to the men, revealing different priorities in resource use. On one occasion, women successfully resisted the axing of a tract of the Dongri-Paintoli oak forest for establishing a potato seed farm that the men supported. Cutting the forest would have added five miles to women's fuelwood journeys, while they felt that cash earned from the project would stay mainly in the men's hands. Again, in tree planting schemes, Chipko women have typically favoured trees which provide fuel and fodder rather than the commercially profitable varieties often favoured by the men.<sup>28</sup>

The above examples clearly highlight women's concerns and organizing abilities. At the same time, the examples are not unambiguously positive since forming informal groups adds to women's responsibilities and burdens without vesting them with additional authority. Improving women's participation and authority in the *formal* fora therefore remains vital.

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28. This gender divergence in choice of trees in tree-planting schemes is also noted in other parts of India (Brara, 1989; Sarin and Sharma, 1991), and can be attributed to gender differences in responsibilities and in dependence on particular categories of trees and forest products.

## 7. OVERCOMING THE CONSTRAINTS

What accounts for women's participation in some initiatives and not in others? What factors could make the emergent community institutions for resource management more gender equal and strengthen, in particular, women's formal involvement in the groups? These questions warrant in-depth probing, but some pointers are provided here.

Before discussing these, however, it is useful to distinguish between what could be termed 'agitational' collective action and 'co-operative' collective action. Situation-specific mobilization to agitate for, say, a change in government forest policy or against large-scale felling by a forest contractor would be examples of the former; the forming of village-based FPCs an example of the latter. Typically, movements such as Chipko have been mainly agitational in nature, and their ability to involve large numbers of women appears to lie precisely in the situation-specificity of action needed in such agitations, compared with the more formalized and regular interaction needed in most micro-initiatives for forest management.

The initiatives we have been discussing are predominantly of the latter kind, including some of the noted spin-offs from the Chipko movement which have taken the form of regularized forest protection and monitoring by women's groups. The discussion below thus relates essentially to factors facilitating women's formal involvement in the micro-initiatives.

### *Gender-progressive NGO Presence*

Typically a major factor facilitating women's participation and also effectiveness in FPC meetings is the presence of a gender-progressive organization. There are several examples where such an NGO has explicitly brought women's concerns to the fore, and led to those concerns being addressed to some degree. In Malekpur village in Gujarat, at a community meeting, we noted that VIKSAT's focus on the hardships women were facing in fuelwood collection led to cut-back operations which yielded substantial fuelwood. In Navagaon village (Gujarat), AKRSP was able to considerably increase women's membership in FPCs as well as their attendance at meetings. Similarly in Rajasthan, explicit dialogue with the men of the community, through the intermediation of PEDO, reduced male hostility towards women's efforts at reclaiming village common lands. The three NGOs in question — VIKSAT, AKRSP and PEDO — were not exclusively women's organizations.

All-women's organizations, however, can make a particular difference. The contrast between north and southwest Bengal in Mukerjee and Roy's (1993) study is revealing. While in southwest Bengal (Midnapore district) only 3 per cent of the 8158 FPC members are women, in north Bengal female presence in FPCs is marked. In the latter almost all the women members in

FPCs are also members of the local women's organization, the *Ganatantrik Mahila Samity*. In parts of West Bengal's Bankura district where women's NGO presence is strong, there is also a notable female presence in FPCs. In Korapara village the shift from an initial all-male membership to 63 per cent female membership is attributable to the active encouragement of the local women's associations — the mahila samitis of the *Nari Bikas Sangh*. This organization was initially formed under the leadership of the Centre for Women's Development Studies (Delhi) to enable women to develop degraded village lands as an income-generating activity. In 1980 a group of women reclaimed wasteland within their village and planted Arjun trees for sericulture. By 1988, some 1500 women in thirty-six villages were members of such groups (Mazumdar, 1989). It is noteworthy that in many of these villages the land these women have reclaimed was privately owned by individual farmers who were persuaded to part with it, given its low productivity. It is an interesting example of a successful shift (albeit micro) of private land to communal use for tree planting.<sup>29</sup> Today *Nari Bikas Sangh* is a registered body and its members are also among the most active members of FPCs in Bankura district.

The fact that these initiatives primarily involve tribal or hill communities makes it easier to overcome social barriers than would be the case in settings which are more class and caste differentiated, and especially where norms of female seclusion are strong. However, the problem that women's opinions are not given much weight in mixed fora, even when they speak out, is part of a larger issue of the cultural construction of gender, and social perceptions about women's capabilities and place in society, from which even hill and tribal communities are not immune. Changing these perceptions will not be easy since many institutions contribute to the creation of gender ideology, including educational establishments, the media, and religious bodies. At the same time, it is encouraging that many aspects of women's situation are amenable to change over time when women begin to speak out collectively through the facilitating presence of a gender-progressive NGO.

In two meetings I attended in March 1995 in Gujarat, one convened by AKRSP, the other by VIKSAT, the personnel from these NGOs helped both in soliciting the opinions of women who were present, and in ensuring that those opinions were given due weight. Of course if the NGO is itself male

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29. An example of such a shift on a larger scale can be found in the South Korea reforestation programme catalysed by the government under the *Saemaul Undong* or New Community Movement for Rural Development launched around 1971. Here about 73 per cent of the forest land was privately owned and most of the land chosen for replanting was private land which over time had become highly degraded. Under the new programme, the owners could replant their land either themselves or in co-operation with the Village Forestry Associations that were set up in each village, under varying arrangements for management and proceed-sharing. By several accounts the programme was a major success, turning barren hillsides to lush green within a few years, and producing enough wood for village use as well as a surplus for sale (for details see Agarwal, 1986a).

biased it can reinforce existing bias within village communities. The gender awareness now being displayed by AKRSP and VIKSAT is reported by them to be of relatively recent origin — a result both of field experience and of discussions initiated especially by some of their women office bearers.

### *Gender-Sensitive Forest Officials*

A gender-sensitive forest officer can also make a marked difference. Women labelled as 'offenders' becoming 'defenders' of forests through the intervention and support of forest personnel, are cases in point. In Brindabanpur village (West Bengal), for instance, women were forced to trespass into the neighbouring village for fuelwood and other necessary forest produce, since they had no forest of their own. But when a sympathetic forest officer (who examined the complaints against the women) assured them that they would be allotted some forest land if they formed an FPC and followed its rules, the women constituted an all-women protection group. It is reported that women now monitor the space carefully, sell saplings from a nursery they have developed, and operate a savings account (Chatterjee, 1992). Some of them, who had earlier depended solely on illicit felling, now have part-time employment as a result. Mansingh (1991) recounts a similar case in a VP area where the matter was similarly resolved by discussions between the villagers, the village government functionary, and a local NGO.

### *Involvement in the Initial Stages*

Experiences in several areas suggest that if women are involved from the beginning when the organization is formed, the chances of their sustained participation is greater. This might be both because they are more motivated as a result, and because their presence has greater legitimacy. In her study of women's attendance at VP meetings, Mansingh (1991: 29) found that:

Women were involved substantially in the voluntary work and always seemed well informed about what had happened. This was in my opinion because they had been present in vast numbers in the first meeting and had understood, agreed to, and participated in the concept of the *van suraksha samiti* [forest protection committee].

### Further:

It was in the first few meetings that the basic protecting resolutions of imposing a moratorium on the cutting of green wood and [of] leaves for fodder, and stopping the grazing of animals were passed. Women being the main collectors of wood and fodder needed to agree to this unanimously, either themselves, or through their husbands. Though the latter were often the means by which the outcomes of later meetings were communicated to them, it didn't always work with the initial agreements to change their use pattern (Mansingh, 1991: note 40).

AKRSP's experience in Gujarat leads to a similar conclusion. In villages where, from the start, an attempt was made to recruit women as members in the Village Development Associations (which also undertake forest protection), both membership rates and attendance at meetings are high.<sup>30</sup> In some of these villages, 50 per cent of those attending are women (Chandran, 1995). An AKRSP project officer told me that sometimes even the way the idea of membership is introduced can make a difference. Earlier when forming an FPC, they had said 'there should be at least two women' (since that was the stipulated minimum for the Working Committee in the Gujarat JFM resolution). Now they say: 'anyone who wants to, can become a member', leading to larger numbers of women joining.

### *Critical Mass*

The presence of a critical mass of vocal women also appears necessary to give women an effective voice in mixed fora. Some women interviewed by Britt (1993: 146) in VP villages emphasized that: 'without a good majority of women present it is impossible to express opinions', and that men would find it difficult to ignore larger numbers of women. The women I interviewed from the Gujarat villages where VIKSAT is working were clear that 'more women should be involved; that will help'.

Of course new initiatives usually involve a process of learning, and what may begin as women-exclusive initiatives can become more women-inclusive over time. But again the presence of vocal women in large enough numbers appears important. Even in the Chipko movement, women's high participation can be considered an important factor enabling them on occasion to take independent initiatives without the men's support, and at times even in opposition to the men.

Nevertheless the question of whether or not women should organize separately by forming all-women's groups remains a vexed one.

### *All Women's Groups?*

In general it is noted that village women are more comfortable and vocal in all-women's groups than in mixed ones. Women village leaders also argue that separate groups will enhance women's participation. For instance, in West Bengal's Midnapore district, the woman panchayat pradhan (council

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30. AKRSP works on a variety of village development issues, for which it encourages the formation of *Gram Vikas Mandals* (Village Development Associations) in the villages within its ambit. Forest protection and wasteland regeneration is one of the major functions of these associations. In some villages women's development associations have also been formed.

head) of Kesriy block said that women's participation in JFM would increase only if separate meetings were convened and women's special constraints dealt with. She recommended that there be an equal number of women and men in the FPCs and executive councils (Guhathakurta and Bhatia, 1992). Similarly, in Durgala village (Sambalpur district, Orissa), Mohini Naik, the local woman activist who initiated a women's association in 1988, to replant and manage the village common land, argues that women can motivate women better, and that there should be more female members in FPCs. She herself is a key member in the local FPC, and feels her presence in the committee has enhanced her status in the community (ISO/Swedforest, 1991).

The experience of other NGOs is mixed. PEDO began by setting up all-women's groups to revive wastelands in parts of Rajasthan, but found that this generated a great deal of hostility and suspicion among the village men. This led PEDO to change its policy and constitute groups of both men and women, but with ambiguous results. An evaluating team noted that:

Joint meetings of men and women, while successful in reducing male hostility and securing their cooperation, tended to diminish free expression and articulation by women. The need to create a separate forum for women, in which they could express their views and concerns uninhibited by the presence of men, was strongly felt (Sarin and Sharma, 1991: 20).

They found a way out by starting women's savings groups from the money earned through the sale of surplus grass from the protected land. This also provided a rationale for holding separate women's meetings without antagonizing the men.<sup>31</sup> In other words, the solution accommodated existing gender relations rather than challenging them, although over time it may well empower the women to do just that.

## 8. ON GENDERED RESPONSES AND ENVIRONMENTAL ACTION

What does the experience of the emergent community institutions tell us about gender differences in responses to environmental degradation?

In an earlier paper I formulated the concept of *feminist environmentalism* (Agarwal, 1992). I argued there that people's responses to environmental degradation need to be understood in the context of their material reality, their specific forms of interaction with nature and their dependence on its resources for survival. Gender-specific responses can typically be traced to a given (unequal) gender division of labour, property and power, rather than

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31. AKRSP members similarly report from their experience in Gujarat that starting a separate savings scheme for women increased women's attendance in Village Development Association meetings. In this case, however, what the savings scheme did was to enhance women's motivation to attend.

primarily or solely to the notion of women being closer to nature than men, as is suggested by the ecofeminist perspective. According to the ecofeminist argument, women (differences between women stemming from location, class, etc., are typically ignored) have a special relationship with nature which gives them a particular stake in environmental protection and regeneration.<sup>32</sup>

The emergent initiatives described in this paper, however, offer further support for the feminist environmentalist approach to understanding environmental action. Not all women have the same stake in environmental protection, nor do women alone have such a stake. We note that rural men too have actively responded to severe deforestation and the degradation of village commons by seeking to contain and reverse these processes. This can be traced to the threat to their livelihood systems and dependence on common property resources for supplementary income, and/or for small timber for house repairs and agricultural tools, which are mainly men's responsibility. Women's responses are linked more to the availability of fuel, fodder, and non-timber products, for which they are more directly responsible, and the depletion of which has meant undertaking ever-lengthening journeys.<sup>33</sup> In other words, there is clearly a link between the gender division of labour and the gendered nature of the responses.

The women I interviewed from some Gujarat villages where VIKSAT is working were unambiguous about this:

Q: On what issues do men and women differ in forest protection committee meetings?

A: Men can afford to wait for a while because their main concern is timber. But women need fuelwood daily.

However, whether these concerns get translated into *effective* action is dependent on whether women's rights in common property resources are explicitly recognized, on the influence women command in the community, and on their access to public decision-making fora. A case study of

32. Ecofeminist discourse embodies several strands but, characteristically, most locate the relationship between women and nature in ideology, emphasizing that the domination of women and of nature are interrelated and have historically emerged together from a common world view, giving women a special interest in ending the domination of nature and, by implication, their own subordination. Some ecofeminists, however, suggest that women are not just conceptualized as closer to nature than men, but are in fact closer to nature because of their biology. See Agarwal (forthcoming) for a longer discussion and critique of the ecofeminist argument in the context of environmental action.

33. In the case of fodder, while in most regions collection is still mainly women's responsibility, in some areas men too now provide an important supplementary labour input. Increasingly also, as noted earlier, rural households have to purchase part of their needs. As men's input in fodder collection or market procurement increases, we would expect their concern with associated shortages to be reflected in their responses.

autonomous forest-management initiatives in three districts of Orissa highlights both the gendered impulse for forest protection and the unequal distribution of power which has enabled men's interests to supersede women's interests. Commenting on the factors which led to the formation of all-male initiatives in the region, the study notes:

In most of the cases protection efforts started only when the forest had degraded and communities faced shortage of small timber for construction of houses and agricultural implements. Although there was a scarcity of fuelwood, it hardly served as an initiating factor (ISO/Swedforest, 1993: 46).

Clearly women's concerns, even if pressing, do not automatically translate into environmental action by women themselves or by the community. For poor women to move from being the main victims of environmental degradation to being effective agents of environmental regeneration is not likely to be easy, although, as noted, a gender-progressive NGO or separate women's association can make an important difference. Sarin and Sharma's (1991: 39) observation of women's participation in the regeneration of VCs in Rajasthan also underlines this point:

[T]here is nothing 'automatic' in the extent of women's active participation in the development of village common lands, no matter how acute their hardship of searching for fuel and fodder. Even in the villages where women took the initiative and played a leadership role, this was preceded by enabling them to interact with other women's groups through *melas*, visits, training programmes and awareness generation camps. Continuous interaction with PEDO's women staff has been another crucial input for facilitating women's genuine participation.

The considerable regional and community-wide variation in women's status is also likely to impinge on women's responses. In particular, there are significant differences across states and between social classes and communities (tribal/non-tribal, Hindus/Muslims, upper-caste/lower-caste Hindus, hill-dwellers/plains-dwellers), in the emphasis on female seclusion and segregation, and hence in the constraints on women's mobility, freedom to participate in public meetings, ability to speak out in mixed gatherings of men and women, and so on. We would therefore expect regional, community, and class differences in women's ability to organize collectively. Female seclusion practices among Hindus, for instance, are strongest in northern India and virtually non-existent in south and north-east India; and within northern India they are strongest among the upper-caste groups located in the plains, and little practised among upper-castes in the hills or among lower-caste and tribal communities anywhere.<sup>34</sup> Seclusion practices

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34. The link between economic class and seclusion is more complex. On the one hand women of richer households are often more restricted, but where they are more educated they may also be better able to bypass seclusion norms.

among Muslims, although not identical to those for Hindus, show a similar regional and community-wide variation. Manifest less in the practice of veiling (which is not widespread) and more in the gender segregation of public space (e.g. women being discouraged from spending time in spaces where men congregate, as in the market place), such practices severely restrict women's free interaction in public fora.<sup>35</sup>

Of course the social construction of appropriate female behaviour (the emphasis on soft speech, deference to male elders, etc.) operates in some degree everywhere even in the absence of overt strictures, including in the hill and tribal communities we have largely been discussing. But since women in such communities are not explicitly restricted, and play a visible and substantial role in the economy in all parts of the country, this tends to reduce the importance of the regional dimension. The effect of this dimension on women's ability to undertake collective action is likely to be more significant for upper-caste Hindus and for Muslims. For instance, we would expect it to be much more difficult for upper-caste Hindu women in the north-western plains of India to participate than those from south India, for the reasons noted. And it would be important to map these regional and cross-community differences for understanding women's responses to the environmental crisis and the possibilities of their acting collectively, as an increasing number of non-tribal or non-hill communities get involved in forest and VC management.

## 9. SUMMARY COMMENTS

The colonial and immediate post-Independence period in India saw a notable shift in property rights over forests and VCs, from substantial community control and management to increasing State and individual control and management. This had particularly adverse consequences for poor rural households, and especially for women in such households, because of their greater and everyday dependence on these resources for basic necessities. More recently, however, we are seeing small but important reversals toward a re-establishment of greater community control over those resources, through the emergence of numerous forest management groups, some initiated by the State, as under the JFM programme, others initiated by villagers or NGOs.

But, unlike the old systems of communal property management where all villagers, including women, had some form of use rights by virtue of being residents of the village community, under the new formalized system of control of common property resources, rights are dependent more directly

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35. For a detailed discussion of regional variations in seclusion practices and more generally in women's participation in public activities, see Agarwal (1994).

on formal membership of the emergent community institutions from which women are often excluded. I have argued here that this exclusion of women has serious negative consequences not just for gender equity, but also for the efficient functioning and long-term sustainability of these initiatives, and for women's empowerment. Concerns of equity, efficiency and empowerment therefore all point to the need to ensure women's greater participation.

A range of factors, however, constrain more gender-balanced participation, including the rules governing the new bodies, social barriers stemming from cultural constructions of gender roles, responsibilities and expected behaviour, logistical barriers relating to the timings and length of organizational meetings, and male bias in the attitudes of those promoting these initiatives, including forest department personnel, village leaders, and sometimes even the intermediary NGOs.

At the same time, the fact that in several regions women have formed their own informal associations for forest protection, and in some cases their formal participation has also increased over time, suggests that these barriers are not insurmountable. Among factors that can enhance women's *formal* participation in the emergent community institutions, the most significant appears to be the presence of a gender-progressive NGO, and especially a women's association. Involving women at the very beginning of the initiative, and the presence of a critical mass of women are also important for their effective and sustained participation in mixed fora.

Finally, the emergence of these varied institutional arrangements highlights the problematic nature of the ecofeminist argument that women simply by virtue of being women have a special relationship with nature, with a particular stake in environmental protection that is seldom shared by men. From the examples described above, both women and men whose livelihoods are threatened by the degradation of forests and VCs are found to be interested in protection and regeneration, but from different concerns, related to differences in their respective responsibilities and nature of dependence on these resources: women are usually more concerned with fuel, fodder and non-timber products, and men with timber and cash benefits; women are also more dependent on communal resources due to their limited private property access. Further, for women to translate their concerns into practice and be effective agents of change, they need to overcome existing social and political barriers, and to contend with the pre-existing advantages that men as a gender (even if not all men as individuals) enjoy in terms of greater access to economic resources and public decision-making fora. In other words, the gender division of labour, property and power (*viz.* the feminist environmentalist perspective) appears to be a better predictor of the environmental action we are observing, than the perspective provided by ecofeminism.

At the same time, the benefits of women's greater participation in environmental action would flow not just to women, but to the entire household, as well as to the larger community — the latter by enabling a more ecologically-balanced and sustainable regeneration of forests and VCs.

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