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## GENDER AND ENVIRONMENTAL MANAGEMENT IN SOUTH ASIA: Can Romanticized Pasts Help Model Desirable Futures?<sup>1</sup>

Bina Agarwal

#### I. Introduction

he state of the environment is of global concern today. But the nature of environmental problems and their implications vary. In developing countries, especially those with large rural populations, nonprivatized natural resources such as forests and village commons (VCs) have a special importance, since these are critical sources of livelihood and basic necessities for many people. They provide a diverse range of products for daily use (fuelwood, fodder, small timber, thatching for roofs, medicinal herbs, etc.) as well as raw materials needed for subsistence farming (green manure, fodder for cattle, and so one). Several million people depend wholly or mostly on nontimber forest products for a living. Forests also contribute to rural livelihoods through the role they play in replenishing groundwater supplies and preventing soil erosion.

Although all rural households depend on communal resources in various ways, poor households with little or no private land are especially dependent. In India, for instance, in the mid-1980s, landless households collected from the local commons some 90 percent of their firewood (a fuel that provides 65 percent or more of domestic energy in large parts of the rural North) and depended on the commons for 69 – 89 percent (varying by region) of their grazing needs, compared with the relative self-sufficiency of landed households.<sup>2</sup>

But within poor households, women's dependence on these resources is especially high for several reasons:

- There is a gender division of labor: it is women and female children who do much of the gathering and fetching of forest produce, especially fuelwood and other nontimber products.
- Within the family there is an unequal gender distribution of basic resources controlled by men, including resources spent on healthcare, education, and, in some regions, food.<sup>3</sup> Moreover, men in poor households are found to spend a significant percentage of their earnings on personal needs, while poor women are noted to spend their earnings almost entirely on basic family needs.<sup>4</sup> Hence women's direct access to economic resources assumes importance for both female welfare and overall family welfare.
- Women have much less access than men to private property resources, especially land and assets. Thus, they are much more dependent on the commons in which traditionally they have had rights unmediated by men.

It is poor rural women (and female children) living in environmentally vulnerable regions—such as arid and semiarid zones—who are, therefore, the most affected by the ill-effects of environmental decline.

This decline has a long history, but it has been especially apparent over the past century. Within South Asia, for instance, forests cover only 5 percent of the geographic area in Pakistan, about 15 percent in Bangladesh, and 19.5 percent in India.<sup>5</sup> Over the years, the land under VCs has also fallen dramatically: in many states in India, it fell by 45–60 percent (varying by state) between 1950 and 1984.<sup>6</sup> In addition, there has been a substantial thinning out of what was earlier dense forest or rich pasture, with an associated fall in productivity and biodiversity.

Underlying this decline and degradation is a complex set of causes:<sup>7</sup> the expansion of area under agriculture and plantations, especially but not only during British colonial rule; the commercial exploitation of forests first by the colonial State to build ships, railways, etc., and subsequently for various uses in the postcolonial period; the agrarian consequences of large hydroelectric and irrigation projects; population growth; urban spread; the substantial privatization of village common land; crop production technologies that are soil- and water-depleting; and the erosion of community institutions that monitored village resource use. While there is no clear consensus of the relative importance of these factors, there is today a widespread recognition of an

environmental crisis that, especially in the rural context, is linked critically to the sustainability of livelihood systems.

Less widely recognized are the implications of this for poor rural women.8 With a decline in forests and VCs,

- There is often an increase in women's time and energy spent on firewood and fodder collection.
- Incomes tend to decline, with fewer items to gather, and less time available for crop cultivation, especially where women's labor is critical for the crops grown, or where the household is *de facto* female headed.
- Nutrition and health tend to be affected adversely by the fall in incomes and by the reduction in diet-supplemeting gathered items. Nutrition is also affected if firewood shortages lead women to economize by shifting to less nutritious foods that need less fuel to cook, or by missing meals altogether. While all household members can suffer in some degree from these adverse effects, women and female children are affected in greater measure, given the unequal sharing of resources for healthcare and food within households.
- There is a gradual erosion of knowledge of local plants and species, as the forests and commons, the basis of this knowledge, disappear. While rural women are by no means the sole repositories of this knowledge, they are often the significant bearers of information on particular items, such as various fuelwood-supplying species, fodder grasses, and food-related forest produce that cushions families under severe food shortage conditions.
- There is an undermining of local support networks, the social capital that women, in particular, build up and draw upon during economic crises. This occurs especially where communities get uprooted due to large-scale logging or large hydroelectric and irrigation works.

These gender-specific effects have been experienced, albeit in varying degrees, across South Asia. Attempts to find solutions, therefore, need to seriously consider both the class and gender dimensions of the problem. To what extent have they done so?

Most environmental writing and policy in South Asia, while recognizing the issue of class differences and the difficulties faced by poor households, engage little with the issue of gender inequality and how this might impinge centrally on the welfare, efficiency, and sustainabil-

ity of efforts toward environmental management. At best, there is an occasional mention of women's actual or potential role in environmental projects. Indeed, many are arguing for a strengthening or replication of traditional community institutions for local resource management, paying little attention to the unequal social relations — especially unequal gender relations — these institutions typically embody. At the same time, a substantial parallel literature that claims global relevance and a significant feminist following — literature that has grown under the broad banner of "ecofeminism," with both Western and Indian variants9 — also largely fails to correct this bias. Why has this literature (some might even say movement) failed to serve as a corrective? To what extent can it so serve? It is important to probe this, since ecofeminism is becoming increasingly important in shaping agendas on women and the environment in international and national forums and among donor agencies. 11

Below, I will (a) briefly outline the nature of interventions in environmental management in South Asia in recent years, as well as the thinking around reviving traditional institutional arrangements; (b) spell out some of the problems with ecofeminist premises that underlie the failure of ecofeminism to effectively challenge gender bias within mainstream environmentalism; (c) examine women's experience in emergent institutions of environmental management in rural South Asia today; and (d) outline how this experience helps to further challenge several ecofeminist assumptions. In conclusion, I will touch on some of the processes necessary to initiate change in a more genderequal direction.

## II. Changing Approaches to Environmental Management

In South Asia, State recognition of the environmental and livelihood crisis associated with the decline of forests and commons was slow, and responses initially took the form of top-down tree-planting programs initiated in the mid- to late 1970s. These involved both direct planting by the State and encouraging private farmers ("farm forestry") and village communities to plant. Although promoted under the banner of "social forestry," much of what the State directly planted consisted of fast-growing commercial species such as eucalyptus (useful especially to the paper and rayon industries), rather than species that provide for the fuel, fodder, and small timber needs of local people. Undertaken on land that the villagers often used for mul-

tiple purposes and without any attempt to ensure their consent or participation, the schemes led to widespread local resistance (including villagers uprooting saplings) and had a high failure rate. It was not only that women were rarely consulted in such schemes (they were, at best, caretakers in tree nurseries with little say in the choice of species, etc.), but that there was usually little consultation even with male users of the commons. The State's attempts to promote tree planting by communities were similarly top-down and had little success, while farm forestry, which *was* successful in terms of tree survival, favored commercial trees for profit rather than species for domestic use.<sup>12</sup> In particular, these schemes raised serious doubts about the ability of the State or of individual farmers to regenerate communal resources without a community-level stake and the involvement of user groups.

In contrast to State efforts were the more successful attempts by villagers themselves and by nongovernmental organizations (NGOs) in many parts of the country to protect the local resource base. Some of these were spontaneous initiatives by populations living in or near the forests, others took the form of popular movements such as Chipko (a movement catalyzed by villagers in the Himalayan hills in 1973 to protest against the commercial logging of their local forests), and a few were initiated by innovative forest officials as "joint" ventures involving both the community and the forest department. There was also a considerable push from environmental academics, activists, and journalists emphasizing the importance of local participation for successful environmental regeneration. As a result, today we are seeing an emerging consensus among scholars, governments, and NGOs that local resources should be managed by village communities.<sup>13</sup> But what shape should community institutions for environmental management take?

A number of influential environmental thinkers in South Asia favor the reviving or replicating of traditional community institutions on the assumption that the past constituted a period of ecological stability and social harmony. Termed by some as the "new traditionalists,"<sup>14</sup> they represent the precolonial period as one of ecological and social balance, suffused with a conservation ethic grounded in religion or culture. Some even consider the entire period from 500 B.C. to A.D. 1860 as one of relative environmental stability, where caste and associated occupational divisions provided a nonconflictual basis for sharing resources.<sup>15</sup> In that period, communal institutions for resource manage-

ment are also assumed to have been a common feature.<sup>16</sup> All this, it is argued, was destroyed mostly by colonialism.

Existing evidence provides a very different picture. Undoubtedly, colonialism contributed to environmental decline, especially through large-scale logging for railways, shipbuilding, and plantations, and through State takeover of forests and communal land, which undermined community property rights and village institutions. But the precolonial period was far from one of ecological stability, given the growth in human and animal populations and spread of agriculture. <sup>17</sup> And although communal resource management institutions clearly did exist, there is little to suggest that these were widespread, nor can their erosion be attributed only to colonial policies. Socially, caste divisions were deeply oppressive for the lower castes, and caste- and class-linked violence against women was common.

Historical representation apart, what is especially problematic in this romanticization of the past is its uncritical prescriptive use. <sup>18</sup> Moreover, the revivalist agenda is not confined to a few. According to Gadgil and Guha, in almost all parts of India, social activists of a range of ideological persuasions—"Gandhians, Marxists, and wholly apolitical social workers"—are seeking answers in and wanting to revive tradition. <sup>19</sup>

Notwithstanding and not denying the lessons tradition could offer on some counts, what is at issue here is the inegalitarian social relations and values that most traditional institutions embody. In the endorsement of such institutions, there is in fact a striking absence of discussion on their effect on social relations, especially gender relations. Equally, many of the community-based institutional arrangements that have emerged in recent years through the encouragement of governmental or nongovernmental bodies are found to be entrenching, even exacerbating, gender inequalities (as detailed later).

This neglect of gender in most environmental writing and policy continues, as noted, despite the growth of ecofeminist literature. In fact, rather than challenging the traditional view, the premises of ecofeminism tend (however unwittingly) to reinforce it, and thus provide support to institutions and practices that can sustain (or even increase) gender inequalities, as elaborated below.

#### III. Ecofeminism: Problematic Premises

Although ecofeminist discourse comprises several strands, these strands share many common features. Most emphasize that women have a special relationship with nature that gives them a particular stake in and a special ability to undertake environmental conservation. The domination of women and the exploitation of nature are seen as having historically emerged together from a common world-view. Women, it is argued, are identified (within patriarchal thought) with nature (=inferior) and men with culture (=superior). This link is seen to give women a special motivation to end the domination of nature and, by implication, their own subordination.

To change this, ecofeminism calls upon women and men to reconceptualize themselves, and their relationship to one another and to the nonhuman world, in nonhierarchical ways.<sup>20</sup> In bringing about this change, the feminist movement and the environmental movement are both seen to work together, on the assumption that they both stand for egalitarian, nonhierarchical systems. Indeed, the liberation of women and of nature are seen as intimately linked.

Elsewhere, I have critiqued the ecofeminist position on several counts that cannot be detailed here,<sup>21</sup> as have some others from various other viewpoints.<sup>22</sup> In my earlier discussion, I elaborated on, among other things, the problems that arise from ecofeminist analysis that locates the domination of women and nature almost solely in ideology (and, by some, even in biology)<sup>23</sup> to the neglect of the material basis of that dominance (e.g., economic advantage and political power). I also highlighted the interactive relationship between the material and the ideological. In this paper, I outline some additional problems with ecofeminist analysis that impinge directly on the present discussion and that have thus far received inadequate attention. These relate broadly to three aspects: (a) the historical characterization of the situation of women and of nature; (b) the linking of the emancipation of women with that of nature; and (c) the assumptions about women's agency.

All three elements are problematic. This is especially well illustrated in the works of Carolyn Merchant and Vandana Shiva. Here, I will concentrate on Shiva, whose work constitutes an influential Indian variant of ecofeminism.

## A. Historical Representation

Shiva traces the subordination of women and of nature to the Scientific Revolution and British colonialism in mid-eighteenth-century India.<sup>24</sup> Like the new traditionalists, Shiva dichotomizes history into precolonial and after.<sup>25</sup> She describes the precolonial world as one where there was harmony between people and nature; where women's position relative to men's was complementary but equal; and where not only did inequality not exist, but exploitation was not even possible. She notes, for instance, that

the world-views of ancient civilisations and diverse cultures which survived sustainably over centuries . . . were based on an ontology of the feminine as the living principle, . . . the humanisation of nature and the naturalisation of society. Not merely did this result in an ethical context which *excluded possibilities of exploitation and domination*, it allowed the creation of an earth family (emphasis mine).<sup>26</sup>

This harmonious society, Shiva argues, was disrupted by colonialism, which imposed on it a Western development model and Western view of masculinity, and caused a radical shift away from the Indian cosmological view of nature as "the feminine and creative principle of the cosmos." The living, nurturing relationship between man and nature as earth mother was replaced by the idea of man as dominating over nature. The shift, she argues, led to the death of the feminine principle, so causing the devaluation of nature and of women "embedded in nature": "The ecological crisis is, at its roots, the death of the feminine principle." Indeed, she generalized further by arguing that

All ecological societies of forest-dwellers and peasants, whose life is organised on the principle of sustainability and the reproduction of life in all its richness, also embody the feminine principle. Historically, however, when such societies have been colonised and broken up the men have usually started to participate in life-destroying activities or have had to migrate....<sup>28</sup>

This view of history is untenable both in its description of precolonial India and in its attributing solely to colonialism what were, in fact, complex processes of gender subordination, environmental degradation, and search for livelihoods. Nor is there any basis for universalizing what were, at best, community- and religion-specific philosophical

traditions, the practical impact of which on gender relations, even in those communities and regions, is obscure. Certainly, social equality cannot be argued to have been the guiding principle of precolonial society either in ideology or in practice.

Consider, in particular, the question of gender. Shiva characterized male-female relations in Indian tradition and in subsistence production as complementary, interdependent, and equal. In fact, there is enormous evidence of women's subordinate position existing long before the advent of the Scientific Revolution or British colonialism. These inequalities relate to three aspects in particular: (a) the gender division of labor; (b) property rights, especially in land; and (c) jural authority and access to public decision-making forums.

On the gender division of labor, Shiva notes that "under conditions of subsistence, the interdependence and complementarity of the separate male and female domains of work is the characteristic mode, based on diversity, not inequality."29 The claim that women and men occupied complementary but equal domains in subsistence production ignores the substantially greater input of time and energy by women for household sustenance relative to man, particularly in subsistence contexts.30 Women's double burden of productive and reproductive work has been widely documented. The problem is not simply that women's work in subsistence is "treated as having no economic value" as Shiva argues, it is also the extra effort women actually expend in domestic work, unshared by men, in addition to nondomestic work.<sup>31</sup> Moreover, perceptions about relative contributions influence the division of resources, such as for food and healthcare, within households. Hence, the economic undervaluation of women's work under subsistence can also affect their share in basic necessities.32

Inequality in property rights were equally significant in precolonial times. Historically, Indian women had very limited rights to own property under traditional law and practice. As I have detailed elsewhere,<sup>33</sup> the *Dharmashastras* — the ancient Hindu treatises and the many commentaries on them (especially the eleventh- and twelfth-century *Mitakshara* and *Dayabhaga* legal doctrines)—which constituted the basis of traditional patrilineal Hindu law and also strongly influenced the formulation of contemporary law, gave Hindu women few rights to inherit or control property. They could inherit immovable property, such as land, only if it was not part of joint family property and only in the absence of four generations of males in the male line of descent. Even then they received only a limited interest in the property—they

could enjoy it in their lifetime but had few rights of disposal. Actual practice deviated somewhat from this prescription in women's favor in south and west India, but the deviation was not substantial enough to make much difference to most women. Effectively, few Hindu women owned or controlled property in the precolonial period. Muslim women, although allowed greater property rights by their religious laws, fared similarly to Hindu women in practice.<sup>34</sup> The only notable exceptions to women's general exclusion from landed property were a few matrilineal communities in northeast and southwest India. These gave women significant land rights, but even they vested managerial control over land in male relatives.

Equally debilitating under customary practice has been women's lack of jural authority and decision-making power. Traditional forums of decision-making in the village, such as clan or caste councils, admitted only men.<sup>35</sup>

In other words, precolonial India was characterized by strong gender hierarchies, not just in terms of norms and perceptions but in terms of deeply embedded economic, legal, and political structures. Rendering these hierarchical structures historically invisible also makes invisible their continuation in the postcolonial period. Today these forms of inequalities persist, although in less stark forms. The gender division of labor continues to be unequal, with women bearing a double work burden. Although inheritance laws (as a result of legal reform, especially in the 1930s and 1950s) now allow women equal rights in most forms of property, significant inequalities remain, especially in relation to landed property. And despite an improvement in women's representation in public forums, there is still a wide gap in relation to men at all levels, but especially at higher levels of decision-making.

Moreover, these three elements of gender inequality underlie not only most of the noted negative gender effects of environmental degradation, they point to the little attention being given to women's concerns in the emergent village institutions for environmental protection in South Asia today. As noted, the gender division of labor is the basis for the increase in women's time and energy in fuel/fodder collection. Women's lack of ownership in private land increases their dependence on common land. And due to their low representation in decision-making forums, they have little say in the rules governing natural resource management now being framed.

A misrepresentation of the past prevents the identification and hence the challenging of the institutional and social constraints that

women continue to face, and allows traditional inequities to persist in emergent institutions for environmental change. Extolling subsistence production systems in various ways, as Shiva, Mies and Shiva, as well as the "new traditionalists" are doing, further enhances these tendencies.<sup>36</sup>

## B. A Common Emancipatory Agenda?

Second, given the continued absence in both theory and practice of a gender perspective in most streams of environmentalism, there is little ground for claiming, as many ecofeminists do, that the women's movement and the environmental movement both stand for egalitarian systems, and that the emancipation of both women and nature are closely linked. Shiva notes, for instance, that "[w]omen and nature are intimately related, and their domination and liberation similarly linked. The women's and ecology movements are therefore one."<sup>37</sup> Merchant makes a very similar argument.<sup>38</sup>

This line of thinking basically assumes a congruity in the goals of the two movements when in fact that congruity needs to be brought about. The dimensions of women's subordination are many and cannot be resolved simply by movements focused on the environmental crisis.

## C. On Women's Agency

The third problematic in ecofeminist analysis relates to women's agency. Ecofeminism romanticizes the notion of agency and in effect constructs women as fully fledged agents. Arguing that women have a special stake in environmental protection, it assumes that women are therefore effective agents for change. But is having an interest in changing something enough to initiate the change? Ecofeminist discourse does not take into account the possible gap between women having an interest in environmental regeneration and their ability to translate that interest into effective action. Indeed (as illustrated further below), some significant environmental initiatives to protect forests and VCs in India have been catalyzed and controlled largely or solely by men. Clearly, we need a more complex and nuanced understanding of environmental action and women's agency.

I would like to argue that women are usually not passive victims of environmental degradation in that many seek to take action in various, typically informal, ways. But to be effective agents for changing their own situation requires also the ability to transform in their own interest the formal structures that control natural resource use and abuse.

The fact that women are often visibly present in protests organized by environmental movements is no guarantee that this will further women's interests or change gender relations. The history of most peasant movements is witness to this. Women have typically been present in a major way in these movements, in a variety of capacities, but have seldom occupied a significant place in decision-making in the organizations spearheading these movements. And for the women participating in these movements, various forms of gender inequalities have persisted within and outside of the home.<sup>39</sup>

Even in the much-publicized Chipko Movement, women's domestic work burden, property rights, and many other aspects of gender relations were not taken up as issues, although women have been part of the protests in large numbers and women's mobilization against alcoholism and associated domestic violence preceded the movement. On occasion during the Chipko Movement, women have taken stands in their own interest in opposition to men, as in 1980 when a group of women successfully prevented their local oak forest (their major source of firewood) from being axed for building a potato seed farm that the village men wanted for its potential cash benefits. But such independent stands remain sporadic and often create intrafamily tensions, while important decision-making positions within the movement remain largely with men.<sup>40</sup>

There are, thus, many aspects of gender inequity that need explicit contestation both within and outside the domain of environmental movements. What constrains women's exercise of agency in environmental action? To illustrate these issues further, consider women's experiences within emergent community institutions for forest management in India.<sup>41</sup>

## IV. Gender Concerns in Emergent Community Institutions

Several thousand such initiatives, especially in the form of microlevel forest protection groups, have emerged in recent years in India. Some have been initiated autonomously by village communities, others by NGOs, and yet others by the government. Governmental efforts have taken the form of the Joint Forest Management (JFM) program launched in 1990, under which village communities and the forest

department share responsibilities and benefits from protecting degraded forest land located near the villages. By one estimate, some 10,000 such groups (including both the JFM and the other initiatives) exist in India today, covering about 2 million hectares of degraded forest land. These are in addition to the well-known environmental movements such as Chipko.

In terms of greening, many of these groups have had notable success. Where the rootstock is intact, natural regeneration is fairly rapid. Several protected tracts I visited in 1995 in Gujarat (west India) showed an impressive growth of trees and plants within five years of protection. Biodiversity was reported to have increased, incomes risen, and seasonal outmigration from the villages fallen. Several other regions report similar positive outcomes.<sup>42</sup> But the results are not impressive in terms of gender equality in resource management and benefit sharing.

Few women are members of forest protection committees, be it in the government schemes or in the autonomous initiatives. Women constitute less than 10 percent of the members in most areas.<sup>43</sup> In the government schemes with clear rules of membership, many Indian states allow only one member per household, which is inevitably the male household head. Where there are no formal membership rules, as in the autonomous initiatives, traditional norms of excluding women from village decision-making bodies continue to operate.

But even where women are members, few usually attend; those that do rarely speak out, and when they do state their views, they are seldom taken seriously and their interests and expertise go unrecognized.

Before I examine what factors constrain women's participation, consider first why it is important that women participate in their own right: There are at least four crucial aspects—Entitlements, Efficiency, Equality, and Empowerment (the four *Es*).

#### A. Entitlements and Welfare

Entitlement to a share in the benefits from protection is linked to membership. Male membership alone does not guarantee that the benefits reach women and children. In fact, without direct participation, women could be left worse off. For instance, given women's absence from the Forest Protection Committees, the rules framed for forest protection and use often take little account of women's concerns. In many villages, women have been barred from any form of collection.

Whereas earlier they could fulfill at least part of their needs from the protected area, the ban on entry imposed by all-male groups has forced women to travel elsewhere, substantially increasing the distance and time it takes to collect firewood. For instance, in the states of Gujarat and West Bengal, many women who prior to protection had spent one to two hours for a headload of firewood now spend four to five hours, and journeys of half a kilometer have lengthened to eight or nine kilometers. Ome women are compelled to seek help from young daughters, to the detriment of the latter's schooling.

In one village of western India, women resentfully commented on a recent award for environmental conservation conferred on the village: "What forest?... Since the men have started protecting it, they don't even allow us to look at it!"<sup>45</sup>

Also, in some self-initiated autonomous groups, all-male youth clubs that are protecting the forests have not only banned entry, they have also been selling the forest products obtained from thinning and cleaning operations. Women in poor households cannot afford to purchase what they had earlier collected for free. Moreover, money obtained from selling timber or grass is often put into a collective fund over which the men have control. In several cases, this money has been used for constructing a clubhouse or for club functions.<sup>46</sup>

Even when the JFM or autonomous groups distribute cash benefits to participating households through the male members, there is no guarantee that these benefits will be shared equally within the family, or even shared at all. The men have been known to use the money on gambling, liquor, and personal items.<sup>47</sup> In contrast, as studies from other contexts show, where poor women control cash, they tend to spend it on the family's, especially the children's, basic needs.<sup>48</sup> Hence, when women are excluded from direct shares, it is not just their welfare that suffers but that of the entire family.

Not surprisingly, when the question of benefit sharing was discussed in a meeting of forest protection committees in eastern India, at which both women and men were present, all the women wanted equal and separate shares for husbands and wives. "There was no vote for 'joint accounts.'"<sup>49</sup> The women wanted control over their share of the income to fulfill their responsibility for family sustenance.

Entitlements to intrahousehold benefits are also linked to perceptions about women's contributions and notions about rights. Women seen to be participating in forest management work would be in a better position to claim equal shares in the returns. Otherwise, they

merely have access to benefits mediated through male household members.

## **B.** Efficiency

Women's exclusion from decision-making also reduces efficiency and sustainability in these initiatives. Since it is women who regularly collect firewood and grasses, their involvement would make the rules more workable and would undercut tendencies to circumvent the rules. In some cases, male committee members have threatened to beat their wives if they break the rules, thus asserting their existing positions of power. <sup>50</sup> Its reprehensibility apart, this form of control is hardly enforceable in the long run, given that women's collection activities fulfill a basic household need on which men also depend.

Moreover, involving women in decisions about planting could better ensure that the forest fulfills a larger proportion of household needs, and that women's particular knowledge of plants and species enriches the choices made. This would enhance biodiversity. Without women's involvement in decision-making, these potential efficiency benefits are lost.

## C. Equality and Empowerment

Equality is an issue of concern not only because it is a measure of a just society, but because it is linked to empowerment. While decentralization can empower local groups, it can also strengthen local pockets of patriarchal power. Women's lack of formal participation in the new community institutions, while the men participate, reinforces preexisting gender inequalities and further reduces women's bargaining power within and outside the household. In contrast, women's involvement would help reverse their traditional exclusion from public forums. It would also increase their self-confidence in asserting their rights in relation to public bodies in general.

On all four counts therefore — entitlements, efficiency, equality, and empowerment—what initially appears to be a success story of participative community involvement in resource regeneration is found to be highly unequal for half of the community's population. This highlights the problem of treating "communities" as ungendered units and "community participation" as an unambiguous step toward equality.

## V. Constraints to Women's Participation

Apart from the formal JFM rules of membership in several states, and the traditional norms of exclusion followed by many self-initiated groups, a number of other factors restrict women's participation, even when they are allowed to be members:<sup>51</sup>

- Logistical constraints associated with women's double work burdens:
  Women have longer workdays than men, and meetings are often
  called when they are busy with domestic chores or fieldwork.
  Women (especially younger ones with children) are, thus, rarely
  able to attend long meetings unless family or friends can cover such
  responsibilities.
- Official male bias: Male forest officers rarely consult women in preparing the village-level microplans for forest development.<sup>52</sup> Many women also complain that if there is a dispute, the officers "always crosscheck with the men to verify the truth of [women's] words. And if ever there is any conflict or contradiction between the women and the men, the foresters always settle the disputes in favor of the men."<sup>53</sup>
- Social constraints: These take various forms, such as female seclusion practices or a more subtle disapproval of women's presence in public spaces; specification of appropriate female behavior and forms of public interaction; social perceptions (articulated in various ways) that women are less capable than men or that their participation in public forums is not appropriate or necessary; and so on. Village women claim that the committee meetings are considered to be only for men, whose opinions and consent are taken to represent those of the whole family.
- The absence of a "critical mass" of women: Most women feel they cannot change procedures by acting individually, but they would be able to speak up for their interests if they were present in large numbers.
- Women's lack of recognized authority: Many women find that when they do attend meetings their opinions are disregarded; they thus become "discouraged dropouts." The experience of a woman member in one forest management group is indicative: "I went to three or four meetings.... No one ever listened to my suggestions. They were uninterested."54

These experiences are not unique to India or to environmental forums. Women encounter similar problems in many different contexts and many parts of the world.

That these constraints are not entirely insurmountable is indicated by the cases in which one-third or one-half of the members in the formal groups are women.<sup>55</sup> High female participation is found to ensure greater success at greening and a better meeting of essential household needs. It also empowers women socially. But such cases are not common and arise typically where a gender-progressive organization exists.

More often, women form *informal* patrol groups where men's groups are ineffective. But while this leads to better protection, it also increases women's responsibilities without giving them the authority that formal membership and participation would provide; such informal groups typically still have to report offenders to the formal (usually all-male) bodies, in whom the authority for punishments is vested.

#### VI. Correctives and Alternatives to Ecofeminism

Women's experiences in the emergent community institutions call into question several ecofeminist assumptions. First, that the women's movement and the environmental movement both stand for the same egalitarian goals. As the above experience shows, an agenda for "greening" need not include an agenda for transforming gender relations; indeed, greening by male-biased institutions may sharpen pre-existing gender inequalities in many contexts.

Second, in relation to the ecofeminist claim that women have a special stake in environmental protection, clearly women alone do not have such a stake. Both women and men, whose livelihoods are threatened by the decline in forests and VCs, are found to be interested in forest protection but from different—and at times conflicting—concerns, stemming from differences in their respective responsibilities and dependence on these resources.

Men's responses can be traced mainly to their dependence on local forests for supplementary income and for small timber for house repairs and tools, which are their responsibility. Women's responses are linked more to the availability of fuel, fodder, etc., for which they are more directly responsible and the depletion of which has meant ever-lengthening journeys. In other words, there is clearly a link

between the gender division of labor and the gendered nature of the responses.

Third, women's concerns, however pressing, do not automatically translate into effective environmental action by women themselves or by the community, as indicated by case studies of several forest-management initiatives.<sup>56</sup> In a study of three districts in Orissa (east India), for example,

In most cases, protection efforts started only when the...communities faced shortage of small timber....Although there was a scarcity of fuelwood, it hardly served as an initiating factor.<sup>57</sup>

These experiences are, in fact, in keeping with the alternative theoretical perspective to ecofeminism that I have spelled out elsewhere under the formulation *feminist environmentalism*.<sup>58</sup> As I argued then, and as the above discussion indicates, people's relationship with nature, their interest in protecting it, and their ability to do so effectively are rooted in and shaped by their material reality; their everyday dependence on nature for survival; and the economic, social, and political tools at their command for furthering their concerns. These features cannot be seen as rooted mainly in ideas about people's assumed closeness to nature (or culture) or in their biology, as emphasized by ecofeminists.

To the extent that both women and men of poor households are dependent on natural resources, they would *both* have an interest in environmental regeneration. But whether this leads to their initiating environmental action, and what benefits they derive from such action, would be contingent on, among other things, their ability to act in their own interests. Gender-specific interest and ability to alleviate the environmental crisis can typically be traced to a given (unequal) gender division of labor, property, and power. Ideological constructions of gender, of nature, and of the relationship between the two would impinge on people's response to the crises, but they cannot be seen as the central determinants of it.<sup>59</sup>

This alternative perspective, which highlights the material basis of the link between people and nature while also recognizing the interaction between the material and the ideological, appears to be a better predictor of the environmental action we are observing than the perspective provided by ecofeminism. To move from being the main victims of environmental degradation to being effective agents of environmental regeneration, poor women will need to overcome existing socioeconomic and political barriers. To bring this about, a number of challenges lie ahead.

## VII. Challenges for Change

To begin with, there is a need to challenge the streams of current environmental thinking that romanticize the past and obscure preexisting social inequalities, especially gender inequalities. Ironically, this includes challenging the views not just of those for whom gender is of peripheral concern but also of those who claim it as their central concern (namely, the ecofeminists).

Although customary community institutions can provide lessons on a number of counts (e.g., forms of cooperation and norms of trust and reciprocity), typically they are not the best models for furthering equality along class, caste, and, especially, gender lines. Social equality was not the principle on which these institutions were built. In fact, the uncritical preservation or revival of such institutions can further entrench existing inequalities. Moreover, even if the past does not serve as an explicit model, embedded inequalities can persist by virtue of being unchallenged. The examples analyzed here provide early warnings that this is indeed happening in many cases.

Second, it is important to see not just that gender inequalities are taken into account but *in what ways* they are taken into account. For instance, a pioneering monograph by two Indian environmentalists, *Towards Green Villages*, states that "it is absolutely vital that women play an important role in the affairs of village communities." Why? Because women are the "fuel, fodder, and water carriers"; hence they "willingly find the time to take on the extra burden of planting and caring for trees and grasslands" (emphasis mine).<sup>60</sup> In this recognition of women's potential contribution there is no mention of the need to reduce women's excessive work burden while also giving them greater claims to resources.

Even in the global arena, largely due to ecofeminist advocacy, while the importance of women's role in ecological regeneration is beginning to be recognized, the ground for this recognition is commonly the view that women have a special way of knowing and nurturing nature. Braidotti et al. note that Shiva has been particularly influential in shaping thinking on women and the environment among NGOs in developed countries,<sup>61</sup> and Jackson observes that "ecofeminist approaches have colonized the views of development agencies."<sup>62</sup> Ecofeminist thinking has also permeated global agendas such as that drawn up at the "World Women's Congress for a Healthy Planet" in Miami (1991) and spelled out in *Women's Action Agenda 21.*<sup>63</sup> Although this document also talks of women having rights to resources, this gets obscured in the overarching message that "our wounded planet needs [the] healing touch of women." Hence, what policymakers pick up is the idea of women's naturalized roles, not rights.<sup>64</sup>

Therein also lies the trap of the ecofeminist position, since a recognition of women's special ability to "heal nature" can easily translate into schemes that increase women's work with no assurance of a greater share of resources or of men sharing women's loads. In fact, in their recent book, *Ecofeminism*, Mies and Shiva further romanticize subsistence economics, notwithstanding the unremitting, undervalued labor by women that traditionally characterizes subsistence production processes. Basically, therefore, while mainstream environmentalism has neglected gender concerns, ecofeminism has tended to essentialize them. Neither illuminates the process by which these concerns can be addressed effectively.

If environmental movements are to become more gender-sensitive and inclusive, women will need to negotiate this, and not only from within these movements but also from an independent position of strength outside them. If environmental thinking is to incorporate a gender perspective, that too will need to be negotiated. Women's subordination existed long before an observable environmental crisis, and greening does not appear impossible without women's emancipation: to assume that the one is organically linked to the other is both unrealistic and unduly self-limiting. Women's negotiating strength in relation to environmental concerns would be enhanced by simultaneous struggles to change gender relations not just in the context of the environment but more fundamentally—in particular to change the gender division of labor, of property, and of political power.

It is not possible to detail here how changes may be brought about in these elements. <sup>65</sup> But what does appear to be clear is that for catalyzing this change, organizations with gender-progressive agendas — in particular women's organizations — are especially important. For instance, in the community forest institutions in India discussed earlier, within the larger picture of women's exclusion, there were pockets of substantial participation. This is where there was a gender-sensitive

organization, often a women's organization. Women belonging to such organizations (even those unrelated to forest protection) are more assertive in joining forest committees (thus creating a critical mass). They are also more aware of their rights and more vocal in mixed forums. Again at the national level, in terms of giving women political voice, pressure from women's groups led to a constitutional amendment in India in 1992, whereby one-third of the seats in village- and block-level elected bodies are now reserved for women. Although women's mere presence does not guarantee that women's interests, especially poor women's interests, will be upheld, it does provide the potential for moving in that direction. Equally, women's organizations in South Asia have played a critical role in negotiating with the State and the community for more gender-just property laws and greater access to economic resources.<sup>66</sup>

Changing the gender division of labor is, of course, the most difficult. But women who are economically independent and have a political voice are also in a better position to negotiate some change on this count. Basically, in order to transform the relationship between women and men and between people and nature, we need to enhance the bargaining power of women in relation to men (both within and outside the household), and of those seeking to protect the environment in relation to those causing its destruction. Elsewhere I have spelled out the types of factors that would enhance a person's bargaining power in particular contexts. Here, it suffices to say that women's bargaining power would depend on at least three types of interlinked factors: their material situation (independent economic status); economic, social, and political support from external agencies (such as kin, the State, and NGOs); and gender ideology (gendered norms and perceptions about women's appropriate roles, rights, abilities, etc.).

Moreover, in these efforts at transformation, the philosophic and ethical principles on which new institutions for environmental change need structuring will require some breaks with the past. They will need new building blocks, a critical one being gender equality. This is necessary for improving not just women's welfare, but the welfare of the whole family. It is necessary for realizing the full productivity potential of the new initiatives and ensuring their success. And it is necessary for empowering the disadvantaged and making them fuller citizens.

Undoubtedly, it is in everyone's interest that the earth be foliage green rather than dust brown, but it is equally important that women and the poor are not just expected to contribute to that green, but can claim an equal right to it. This would, I believe, also make the green greener.

#### Notes

- 1. This is a shorter and revised version of the paper circulated at the 1997 Macalester International Roundtable. I am grateful to Janet Seiz, Kumkum Sangari, Patricia Uberoi, and Ann Gold for their helpful comments on a draft of the earlier version.
- 2. N. S. Jodha, "Common Property Resources and the Rural Poor," *Economic and Political Weekly* 21, no. 27 (5 July 1986).
- 3. See, e.g., Bina Agarwal, "Women, Poverty and Agricultural Growth in India," *The Journal of Peasant Studies* 13, no. 4 (July 1986); Barbara Harriss, "The Intrafamily Distribution of Hunger in South Asia," in *The Political Economy of Hunger*, ed. Jean Dreze and Amartya K. Sen (Oxford: Clarendon Press, 1990), 351–424; and Jean Dreze and Amartya K. Sen, *Hunger and Public Action* (Oxford: Clarendon Press, 1989).
- 4. See, e.g., Joan P. Mencher, "Women's Work and Poverty: Women's Contribution to Household Maintenance in Two Regions of South India," in *A Home Divided: Women and Income Control in the Third World*, ed., Daisy Dwyer and Judith Bruce (Stanford: Stanford University Press, 1989); and Rae Lesser Blumberg, "Income under Female vs. Male Control: Hypotheses from a Theory of Gender Stratification and Data from the Third World," in *Gender, Family and Economy: The Triple Overlap*, ed. Rae Lesser Blumberg (Newbury Park, Calif.: Sage Publications, 1991), 97–127.
- 5. Bina Agarwal, A Field of One's Own: Gender and Land Rights in South Asia (Cambridge: Cambridge University Press, 1994).
- 6. Jodha, "Common Property Resources and the Rural Poor."
- 7. For details, see Bina Agarwal, *Cold Hearths and Barren Slopes: The Woodfuel Crisis in the Third World* (London: Zed Books, Delhi: Allied Publishers, 1986), and "Gender, Environment and Poverty Interlinks: Regional Variations and Temporal Shifts in Rural India—1971–1991," *World Development* 25, no. 1 (1997).
- 8. For elaboration, see Bina Agarwal, "The Gender and Environment Debate: Lessons from India," *Feminist Studies* 18, no. 1 (Spring 1992).
- 9. Detailed in ibid.
- 10. Under "ecofeminism," I do not include the largely descriptive literature on women, environment, and development. As formulated theoretically, the central strands of ecofeminism (for all their diversity) share some basic premises, premises they do not share with that literature. There has been a tendency among some scholars in recent years to include under the banner of "ecofeminism" virtually any study or movement that deals with women and the environment (see, e.g., Greta Gaard and L. Gruen, "Ecofeminism: Toward Global Justice and Planetary Health," Society and Nature: The International Journal of Political Economy 2, no. 1 [1993]). I believe this is a misrepresentation.
- 11. Rosi Braidotti et al., *Women, the Environment and Sustainable Development: Towards a Theoretical Synthesis* (London: Zed Books, 1994); and Cecile Jackson, "Women/Nature or Gender/History? A Critique of Ecofeminist 'Development,'" *The Journal of Peasant Studies* 20, no. 3 (1993): 389–419.

- 12. For details, see Agarwal, Cold Hearths and Barren Slopes.
- 13. For a discussion on and review of some of the theoretical and empirical literature, see especially Jean-Marie Baland and Jean-Philippe Platteau, Halting Degradation of Natural Resources: Is There A Role for Rural Communities? (Oxford: Clarendon Press, 1996). On more country-specific discussions and case studies, for India see, Anil Agarwal and Sunita Narain, Towards Green Villages: A Strategy for Environmentally Sound and Participatory Rural Development, monograph (Delhi: Center for Science and Environment, 1989); Madhav Gadgil and Ramachandra Guha, This Fissured Land: An Ecological History of India (Delhi: Oxford University Press, 1993) and Ecology and Equity (New Delhi: Penguin Books, 1995); Madhav Gadgil and Prema Iyer, "On the Diversification of Common Property Resource Use by the Indian Society," in Common Property Resources: Ecology and Community Based Sustainable Development, ed. Fikret Berkes (London: Belhaven Press, 1989), 240-55; Mark Poffenberger and Betsy MacGean, eds., Village Voices, Forest Choices: Joint Forest Management in India (Delhi: Oxford University Press, 1996); and the substantial literature on "joint forest management"—some reviewed in Bina Agarwal, "Environmental Action, Gender Equity, and Women's Participation," Development and Change 28, no. 1 (1997): 1-44. For Nepal, see D. A. Gilmour, "Forest Resources and Indigenous Management in Nepal," Environment and Policy Institute Working Paper No. 17, East-West Center, Hawaii, 1989; J. Gabriel Campbell and Jeannette Denholm, Inspirations in Community Forestry, Report of the Seminar on Himalayan Community Forestry, International Centre for Integrated Mountain Development (ICIMOD), Kathmandu, Nepal, 1-4 June 1992; and R. J. Fisher et al., "Management of Forest Resources in Rural Development: A Case Study of Sindhu Palchok and Kabhre Palanchok Districts of Nepal," Mountain Populations and Institutions Discussion Paper No. 1, ICIMOD, Kathmandu, Nepal, 1989. For some other regions, see Fikret Berkes, ed., Common Property Resources.
- 14. See Subir Sinha, Shubhara Gururani, and Brian Greenberg, "The 'New Traditionalist' Discourse of Indian Environmentalism," *The Journal of Peasant Studies* 24, no. 3 (April 1997), who also provide an insightful critique of this discourse.
- 15. Madhav Gadgil, "Social Restraints on Resource Utilisation: The Indian Experience," in *Culture and Conservation: The Human Dimensions in Environmental Planning*, ed. Jeffrey A. McNeely and David Pitt (London: Croom Helm, 1985). See also Madhav Gadgil, "The Indian Heritage of a Conservation Ethic"; and Madhav Gadgil and Ramachandra Guha, *This Fissured Land*.
- 16. Gadgil, "The Indian Heritage of a Conservation Ethic"; Agarwal and Narain, *Towards Green Villages*.
- 17. See Brian Greenberg, "Sustainable Futures and Romantic Pasts: Political Ecology and Environmental History in North India," paper presented at the Institute of Economic Growth, University of Delhi (6 February 1996); Sinha et al., "The 'New Traditionalist' Discourse of Indian Environmentalism"; and Sumit Guha, "Kings, Commoners and the Commons: People and Environments in Western India: 1600 1900" (Nehru Memorial Museum and Library, New Delhi, 1995, mimeographed).
- 18. As in Gadgil and Iyer, "On the Diversification of Common Property Resource Use by the Indian Society."
- 19. Gadgil and Guha, Ecology and Equity, 188–89.
- 20. The arguments highlighted here are fairly characteristic of ecofeminist formulations, even given their differences on other counts. See, e.g., Ynestra King, "Feminism and the

Revolt," Heresies, no. 13 (1981): 12–16, and "The Ecology of Feminism and the Feminism of Ecology," in Healing the Wounds: The Promise of Ecofeminism, ed. Judith Plant (Philadelphia: New Society Publishers, 1989); Ariel Kay Salleh, "Deeper than Deep Ecology: The Eco-Feminist Connection," Environmental Ethics 16 (Winter 1984): 339–45; and Carolyn Merchant, The Death of Nature: Women, Ecology and the Scientific Revolution (San Francisco: Harper and Row, 1980). Carolyn Merchant, "Ecofeminism and Feminist Theory" in Reweaving the World: The Emergence of Ecofeminism, ed. Irene Diamond and Gloria Orenstein (San Francisco: Sierra Club Books, 1990); S. Griffin, Women and Nature: The Roaring within Her (New York: Harper and Row, 1978); Vandana Shiva, Staying Alive: Women, Ecology and Survival (London: Zed Books, 1988); introduction to Ecofeminism, Maria Mies and Vandana Shiva (Delhi: Kali for Women, 1993); and various articles in Healing the Wounds: The Promise of Eco-Feminism, ed. Judith Plant (Philadelphia: New Society Publishers, 1989) and Diamond and Orenstein, Reweaving the World.

For further discussions on some of the central arguments on which ecofeminists agree, see Karen J. Warren and Jim Cheney, "Ecological Feminism and Ecosystem Ecology," *Hypatia* 6, no. 1 (Spring 1991): 179–97; Victoria Davion, "Is Feminism Feminist?" in *Ecological Feminism*, ed. Karen J. Warren (London and New York: Routledge, 1994); and J. Birkeland, "Ecofeminism: Linking Theory and Practice," in *Ecofeminism: Women, Animals, Nature*, ed. Greta Gaard (Philadelphia: Temple University Press, 1993). While most generalize about all women, Shiva distinguishes between Third World women and the rest, but does not differentiate between women by class, caste, race, or ecological location.

#### 21. Agarwal, "The Gender and Environment Debate."

22. See, e.g., Janet Biehl, Rethinking Ecofeminist Politics (Boston: South End Press, 1991); Jim Cheney, "Ecofeminism and Deep Ecology," Environmental Ethics 9 (1987): 115 – 45; Cecile Jackson, "Women/Nature or Gender/History?"; Melissa Leach and Cathy Green, "Gender and Colonial Environmental History: Moving Beyond the Narratives of the Past in Contemporary Women-Environment Policy Debates," in Imperialism, Ecology and Politics, ed. R. Rajan (forthcoming); Huey-li Li, "A Cross-cultural Critique of Ecofeminism," in Ecofeminism: Women, Animals, Nature, ed. Greta Gaard; Helen E. Longino, "Book Review," Environmental Ethics 3 (Winter 1981): 365-69; and Michael E. Zimmerman, "Feminism, Deep Ecology and Environmental Ethics, Environmental Ethics 9 (Spring 1987): 21 – 44. It is curious that Li ends with a polemical statement that wholeheartedly supports ecofeminism; this contradicts her strong criticisms of various aspects of ecofeminism in the body of her paper. Also Li; Birkeland, "Ecofeminism"; and several others who identify particular problems with Western ecofeminism ignore similar problems in non-Western ecofeminist arguments, most notably in the work of Shiva, Staying Alive. For an important critique of Shiva's views on science, see Meera Nanda, "Is Modern Science a Western, Patriarchal Myth? A Critique of the Populist Orthodoxy," Social Science Bulletin 11, nos. 1 and 2 (1991): 32-60. See also Sinha et al., "The 'New Traditionalist' Discourse of Indian Environmentalism."

23. Some ecofeminists suggest that women are not just conceptualized as closer to nature than men but are, in fact, closer to nature. Shiva (*Staying Alive*, 42 and 47), for instance, sees women as "embedded in nature." She and some others also suggest that women's closeness with nature can affirm more nurturing and caring values both between humans and between human and nonhuman nature. Shiva traces this closeness both to

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biology and to historical and cultural factors; some others (e.g., Salleh, "Deeper than Deep Ecology") place primary emphasis on women's biology.

- 24. Shiva, Staying Alive.
- 25. Sinha et al. in "The 'New Traditionalist' Discourse of Indian Environmentalism" include Shiva among the new traditionalists. I feel it is important to distinguish between the two both because there are significant aspects of ecofeminist discourse (such as the relationship between women and nature) that are not shared by the new traditionalists, and because the meeting points of ecofeminists and the new traditionalists (such as the romanticization of history and of subsistence production) themselves need to be noted.
- 26. Shiva, Staying Alive, 41.
- 27. Ibid., 42.
- 28. Ibid.
- 29. Ibid., 5.
- 30. See, among others, S. Saxena, R. Prasad, and V. Joshi, "Time Allocation and Fuel Usage in Three Villages of the Garhwal Himalaya, India," *Mountain Research and Development* 15, no. 1 (1995): 57–67; Meena Archarya and Lynn Bennett, *An Aggregate Analysis and Summary of Village Studies: The Status of Women in Nepal*, II, part 9 (Kathmandu: CEDA, Tribhuvan University, 1981); and A. Haroon Akram-Lodhi, "You are Not Excused from Cooking: Peasants and the Gender Division of Labor in Pakistan," *Feminist Economics* 2, no. 2 (Summer 1996).
- 31. Shiva, Staying Alive, 220.
- 32. Bina Agarwal, "'Bargaining' and Gender Relations," *Feminist Economics* 3, no. 1 (1997): 1–51; and Amartya K. Sen, "Gender and Cooperative Conflicts," in *Persistent Inequalities: Women and World Development*, ed. Irene Tinker (New York: Oxford University Press, 1990).
- 33. Agarwal, A Field of One's Own.
- 34. Ibid.
- 35. See ibid.; P. Viegas and G. Menon, "Forest Protection Committees of West Bengal: Role and Participation of Women" (paper prepared for the ILO Workshop on "Women and Wasteland Development," International Labour Organisation, New Delhi, 9–11 January 1991), and Govind Kelkar and Dev Nathan, *Gender and Tribe: Women, Land and Forests in Jharkhand* (London: Zed Books; New Delhi: Kali for Women, 1991).
- 36. See Shiva, *Staying Alive*; Mies and Shiva, *Ecofeminism*; and Sinha et al., "The 'New Traditionalist' Discourse on Indian Environmentalism."
- 37. Shiva, Staying Alive, 47.
- 38. Merchant, The Death of Nature.
- 39. For examples, see Bina Agarwal, "Gender, Resistance and Land: Interlinked Struggles over Resources and Meanings in South Asia," *The Journal of Peasant Studies* 22, no. 1 (1994).
- 40. Kumud Sharma, K. Nautiyal, and B. Pandey, "Women in Struggle: Role and Participation of Women in the Chipko Movement in Uttarakhand Region of Uttar Pradesh," occasional monograph, Center for Women's Development Studies, Delhi, 1987.
- 41. For a more detailed discussion on these institutions and their gender implications, see Agarwal, "Environmental Action, Gender Equity and Women's Participation."

- 42. See e.g., G. Raju, R. Vaghela, and M. S. Raju, Development of People's Institutions for Management of Forests (Ahemdabad: VIKSAT, 1993).
- 43. Urvashi Narain, "Women's Involvement in Joint Forest Management: Analyzing the Issues," draft paper, Ford Foundation, New Delhi, 1994; S. B. Roy et al., "Endogenous Development, Gender Roles in Participatory Forest Management" (Calcutta: IBRAD, 1992).
- 44. Madhu Sarin, "Regenerating India's Forest: Reconciling Gender Equity and Joint Forest Management," *IDS Bulletin* 26, no. 1 (1995); and Agarwal, "Environmental Action, Gender Equity, and Women's Participation."
- 45. Meera K. Shah and Parmesh Shah, "Gender, Environment and Livelihood Security: An Alternative Viewpoint from India," *IDS Bulletin* 26, no. 1 (1995): 80.
- 46. N. Singh and K. Kumar, Community Initiatives to Protect and Manage Forests in Balangirand Sambalpur Districts (New Delhi: Swedish International Development Agency, 1993).
- 47. P. Guhathakurta and K. S. Bhatia, A Case Study on Gender and Forest Resources in West Bengal (Delhi: World Bank, 1992).
- 48. Mencher, "Women's Work and Poverty."
- 49. Sarin, "Regenerating India's Forests," 90.
- 50. Ibid.
- 51. For elaboration, see Agarwal, "Environmental Action, Gender Equity, and Women's Participation."
- 52. Guhathakurta and Bhatia, "A Case Study on Gender and Forest Resources in West Bengal."
- 53. S. B. Roy et al., "Profile of Forest Protection Committees at Sarugarh Range, North Bengal," IBRAD Working Paper No. 16, 1993: 15–16.
- 54. Cited in Carla Britt, "Out of the Wood? Local Institutions and Community Forest Management in Two Central Himalayan Villages," draft monograph, Cornell University, Ithaca, N.Y., 1993, p. 146.
- 55. Narain, "Women's Involvement in Joint Forest Management"; also, personal observation in Gurajat, West India.
- 56. Madhu Sarin and C. Sharma, "Women's Involvement in Rehabilitation of Common Lands in Bicchiwara Block of Dungarpur District, Rajasthan," paper prepared for the ILO Workshop on "Women and Wasteland Development," International Labour Organisation, Delhi, January 1991; ISO/Swedforest, "Forests, People and Protection: Case Studies of Voluntary Forest Protection by Communities in Orissa" (New Delhi: Swedish International Development Agency, 1993).
- 57. ISO/Swedforest, "Forests, People and Protection," 46.
- 58. Agarwal, "The Gender and Environment Debate."
- 59. In specific terms, in my formulation of feminist environmentalism, I suggest that "women's and men's relationship with nature needs to be understood as rooted in their material reality, in their specific forms of interaction with the environment. Hence, insofar as there is a gender and class (/caste/race-) based division of labor and distribution of property and power, gender and class (/caste/race) structure people's interactions with nature and so structure the effects of environmental change on people and their responses to it....Ideological constructions such as of gender, of nature, and of the rela-

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tionship between the two, may be seen as (interactively) a part of this structuring but not the whole of it." Agarwal, "The Gender and Environment Debate," 126–27. For further elaboration, see the original article.

- 60. Agarwal and Narain, Towards Green Villages, 26.
- 61. Braidotti et al., Women, the Environment and Sustainable Development.
- 62. Jackson, "Women/Nature or Gender/History?" 398.
- 63. Women's Environment and Development Organization (WEDO), World Women's Congress for a Healthy Planet, Official Report, including Women's Action Agenda 21, and Findings of the Tribunal (New York: WEDO, 1992).
- 64. For a graphic illustration of this, see especially the remarks by Maurice Strong (Secretary General of the United Nations Conference on Environment and Development, 1992) to the World Women's Congress for a Healthy Planet in ibid.
- 65. In *A Field of One's Own*, I have discussed at length how women's command over property might be strengthened.
- 66. For examples, see Agarwal, A Field of One's Own.
- 67. For an elaboration of the concept of "bargaining" in connection with gender relations, see Agarwal, "'Bargaining' and Gender Relations."