The nature of gender: work, gender, and environment

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Abstract. Gender has long been recognised as important within environmental issues, but there has been considerable debate over how to conceptualise the gender – environment nexus. As feminist theorising around women and gender has changed, so have conceptualisations about gender and environment, leading to a key debate within ecofeminism and related literatures about whether there is an essential or a contingent relationship between women and natural environments. Within geography, most political ecologists work with the assumption that the gender – environment nexus is a contingent relationship, and thus investigate how gender relations are salient in the symbolic and material construction of environmental issues. In this paper I seek to build from this work and again raise the issue of how gender is conceptualised in relation to environment. I begin by briefly reviewing some of the work that has been done on gender and environment and then draw from poststructural feminism to suggest that gender itself has been undertheorised in work on environment. Once gender is reconceptualised as a process, the dynamic relationship between gender, environment, and other aspects of social and cultural life can be brought into view. What emerges is the need for political ecologists to examine gender beyond the household and community and the need to reconceptualise the gender – environment nexus. A case study of community forestry in Nepal is used to illustrate the importance of interrogating the processes by which gender relations become salient and are reproduced symbolically and materially.

Introduction
Gender has long been recognised as important within environmental issues, but exactly how it is relevant and in what contexts have been hotly debated. Some feminists have argued that there is a natural or essential connection between women and nature which gives women an innate understanding of ecosystems and environmental protection (Diamond and Orenstein, 1990; Shiva, 1988). This kind of essentialist thinking has been challenged by other feminists who instead focus on the material practices that bring women closer to nature and which thus give them learned, practical knowledge of ecosystems (Agarwal, 1992; Warren, 1987). Within geography, many political ecologists have embraced a historical-materialist argument and focus on gender as one relation through which access to and distribution of natural resources is differentiated within societies (Carney, 1994; Fortmann, 1996; Freidberg, 2001a; Gururani, 2002; Mackenzie, 1995; Rocheleau et al, 1996a; Schroeder and Suryanata, 1996). In this work, gender is closely linked to biological sex and understood as culturally defined male – female roles. Such studies have documented how women are denied access to new technologies, training, and other benefits of development projects, and given limited access to and control over land and natural resources (Barker, 2000; Carney, 1996; Deere and de Leal, 1981; Moser, 1993; Nathen, 1995). What remains generally unaddressed, however, is how such inequality is maintained over time and space, particularly in societies in which women shoulder the bulk of the agricultural work.

In this paper I explore the production of social inequalities and environments by examining how and when gender and other forms of difference become enrolled in environmental issues. I draw on definitions of gender that imagine it as a process by which subjectivities are produced and shift over time and space (Butler, 1990; 1997;

Connell, 1987; Mahoney and Yngvesson, 1992; Mehta and Bondi, 1999), rather than as part of power-laden systems of social structures. The meaning and relevance of gender are thus produced in space and in part constitute that space such that neither can preexist the other (Bondi and Davidson, 2004; Massey, 1994; McDowell, 1999; Pratt and Hanson, 1994). If gender is unable to preexist its context then the focus of gender – environment studies needs to shift to how gender becomes relevant in environmental disputes and how gendered subjectivities are (re)produced in environments (see Bondi and Davidson, 2004).

This conceptualisation emphasises that gender is not constant and predetermined materially or symbolically but rather becomes salient in environmental issues through work, discourses of gender, and the performance of subjectivities. Not only are inequalities between men and women a consequence of environmental issues, gender is a *cause* of environmental change in the sense that gender is inextricably linked to how environments are produced. When gender is conceptualised as a process, the complex interplay between gender, environment, and other relevant aspects of social and cultural processes can be analysed. In the second part of the paper I draw on a case study of community forestry in Nepal to illustrate these dynamics in a place-based development project. Before turning to the case study, I review the literature on gender and environment and suggest that if these poststructural insights are used to reconceptualise gender, then the gender – environment nexus also needs to be retheorised.

Gender and environment

In this section I highlight three key strands discernable in existing work on gender and environment to demonstrate how gender has been treated conceptually and the complexity of thinking within this literature (for good reviews see Agarwal, 1992; Moeckli and Braun, 2001; Nesmith and Radcliffe, 1993; Rocheleau et al, 1996a). First, I briefly discuss the contributions as well as the limitations of essentialist thinking about gender and environment (see Bondi and Davidson, 2004). In this strand there is an assumption of an 'inherent' or 'natural' connection between women and the land, providing women with privileged knowledge of environmental change and privileged roles in redressing environmental destruction (Diamond and Orenstein, 1990; Mies and Shiva, 1993; Shiva, 1988). Second, I outline work that emphasises the material practices that shape the relationships between gender and environment. This strand argues for a contingent, production-based relationship between gender and environmental knowledge and action (Agarwal, 1992; Plumwood, 1991; Warren and Cheney, 1991). Third, I discuss more recent work done in geography that brings together these perspectives with insights from political ecology to highlight gendered knowledges, rights, and politics in the context of environmental issues (Freidberg, 2001a; Rocheleau et al, 1996a).

Essentialist conceptualisations of gender – environment

In the mid-1970s feminist scholars began to examine the dualistic associations that aligned women with nature and men with culture (Griffin, 1978; Ortner, 1974). These associations were linked to a host of binary structures such as: men are rational and women are emotional, women are nurturing whereas men are competitive (Haraway, 1991; Merchant, 1982; Ortner, 1974). In response to this some feminists embraced the idea that women are closer to nature and, in the context of the growing environmental movement, argued that women inherently have a better understanding of the importance of environmental protection (Diamond and Orenstein, 1990; Mies and Shiva, 1993; Shiva, 1988). This ecofeminist thinking was premised on the idea that the domination of women was linked to environmental destruction and other problematic social inequalities such as racism. Griffin's (1978) book *Women and Nature: The Roaring Inside Her* was an important piece of lyrical writing that helped to inspire ecofeminism. In this book Griffin uses poetry

and evocative writing to equate the violence done to the land with violence done to women. Importantly, she puts forward the idea that women, like nature, could fight back and were doing so using their 'nature'.

This kind of work promoted an essentialist notion of women that was common within feminism at the time. 'Women' was a largely undifferentiated category and it was assumed that all women would have the same kind of sympathies and understandings of environmental change as a consequence of their close connection to nature. Shiva's (1988) book *Staying Alive: Women, Ecology, and Development* is perhaps one of the most famous examples to come out of this kind of thinking.[1] This book discusses the grassroots Chipko movement in northern India and the symbolic resources which women involved drew upon to save forests from commercial loggers. In it she argues that Indian women have an inherent connection to nature, and the power that arises from that connection inspires them to risk their lives in front of logging machinery. Although women are oppressed and marginalised in modern Indian society, Shiva draws from ancient religious beliefs and stories to suggest that women are in fact more powerful than men, and certainly have a more profound understanding of environmental change. This work was incredibly important in promoting the idea that uneducated people (especially women) could have a better understanding of environmental protection than scientists and policymakers. It was also important in advocating a global women's movement, linked together by threats to women's home environments (see Seager, 1993). Shiva asserted that the inherent understanding women have of their environments would help to bridge cultural gaps and provide a focus around which they could join together globally. Although heavily criticised both within India and by other feminists for inaccuracies in her work and for problematic assumptions about different women's experiences, Shiva's work has inspired women all over the world to defend environmental resources and was central in making 'Chipko' a household name in many places.

Other key ecofeminists focused on the ideological assumptions of modern science that are based upon dominating 'mother nature' (Merchant, 1982; Mies and Shiva, 1993; Plumwood, 1991; Warren, 1987). They argued that there are close connections between patriarchy and modern transformations of environments. Thus the reversal of environmental destruction cannot fully occur without the emancipation of women. In this kind of conceptualisation, gender, based on biological sex, is the foundational relation that serves to support other problematic relations such as race, class, and heterosexism (Plumwood, 1991; Warren, 1987).

Materialist conceptions of women – environment

Conceptualising the relationship between women and nature as an essential one thus helped to define a global women's environmental movement and challenged the hegemony of (male) scientific knowledge as the privileged source of information about environmental change. However, as other feminists argued, essentialist conceptualisations of women ignored very real differences that exist between women and, worse, rely on the notion of an essential female nature (Cuomo, 1998). Women of colour in the United States were some of the first feminists to challenge the white, middle-class bias in feminism (hooks, 1984; Moraga and Anzaldua, 1988). Latino and African–American women argued that in many contexts race was more salient in shaping their experiences of inequality and thus that the intersections of race, class, and gender need to be theorised (hooks, 1990; Kobayashi and Peake, 1994; Moraga and Anzaldua, 1988).

[1] Although in some ways I am criticising her work here, I want to acknowledge that it was Shiva's work that first inspired my interests in gender, development, and environment. She and Agarwal have been extremely influential on my thinking about these issues.

In India, Agarwal (1992) challenged Shiva's essentialist rendering of the women and environment nexus, drawing from her own work on women and fuel-wood issues in the Himalayas. She argued that, although a relationship between women and their motivation to protect the environment could indeed be identified, this relationship was based on their material realities and not on some inherent, close connection to nature. Many Indian women are responsible for the food and fuel needs of their families, which require them to tend the land and gather products from forests (Agarwal, 1994; Gururani, 2002). These activities give them intimate knowledge of their eco-systems and a strong need to ensure that resources are used sustainably; failure to do so results in increased work burdens for themselves (Agarwal, 1994; 1997). She named this brand of theorising 'ecological feminisms' to distinguish it from the essentialist conceptions of women that were beginning to dominate the ecofeminism literature (Agarwal, 1992).

Ecological feminisms argued for a clear focus on gender, defined as the differences between men's and women's experiences and knowledge in relation to their environ-ment. This focus illuminates the importance of material practices, in particular men's and women's work practices, and of culturally specific gender roles in shaping the gender – environment nexus. It also builds on ideas already put forward by Shiva and others that rural women's environmental knowledge is valid and important. By basing this claim on material practices, Agarwal helped to give an empirical basis to the idea that women have unique environmental knowledge and, significantly, brought a polit-ical-economic analysis into the debate around gender and environment. She argued that the material conditions of people's lives are complicit in producing particular kinds of environmental problems, and these problems place extra burdens on women responsible for the subsistence needs of their families. Thus attention to political economy as well as to cultural expectations and behaviour around gender is important in analysing environmental issues.

Feminist political ecology

Building from ecofeminism and ecological feminism, the book *Feminist Political Ecology* edited by Rocheleau et al (1996a) laid out what they saw as the three key themes to emerge from feminist theorising on gender and environment and recent political-ecology work:

1. Gendered knowledge, or the ways in which access to scientific and ecological knowledge is structured by gender.
2. Gendered environmental rights and responsibilities, including differential access by men and women to various legal and de facto claims to land and resources.
3. Gendered politics and grassroots activism, including an examination of women within and as leaders of environmental movements.

The first theme, gendered knowledge, follows much of the feminist environmen-talism literature and explores how men and women have differential knowledge of natural resources. For example, men often have privileged access to agroforestry extension workers, new training opportunities, and other knowledge associated with 'science' (Diamond and Orenstein, 1990; Rocheleau et al, 1996b; Wangari et al, 1996), while women have experiential knowledge gained from their role as subsistence pro-viders in households. Rocheleau et al (1996a) use this information to demonstrate that women often have crucial knowledge of natural resources that allows for household survival and to argue that women should be included more centrally in development projects and extension work.

The second theme, gendered rights and responsibilities, explores the contexts within which women are denied equal access to land and resources. In many Third

World contexts, agrarian reforms legally distributed land to male heads of households only, undermining women's de facto claims to use rights and control over land (Bourque and Warren, 1981; Chant and Radcliffe, 1992; Deere, 1990; Gisbert et al, 1994; Radcliffe, 1992). Current development projects often intersect with these conflicts over land and resources to the detriment of women (Carney, 1996; Rocheleau et al, 1996b), although such negative effects are acknowledged to be spatially and temporally specific (Agarwal, 1994; Carney, 1996; Schroeder, 1997). The importance of recognising complex land-rights systems within development processes is illuminated by this theme. Redefining land rights in terms of private property often creates significant social-justice consequences, particularly for women (Agarwal, 1994; Carney, 1996; Gururani, 2000; Rocheleau and Edmunds, 1997).

The third theme, gendered politics and grassroots movements, examines social movements but includes a specific focus on the role of women within them, highlighting how they have been empowered through involvement in community struggles for control over natural resources. Although certainly not without their contradictions, environmental social movements are seen to have tremendous potential for the emancipation of women and impoverished communities in addition to environmental protection (Escobar, 1995; Peet and Watts, 1996a; for an alternative argument see Reed, 2000).

In summary, most of the work done within feminist political ecology demonstrates how gender, understood as culturally defined male – female sex roles, structures access to particular types of knowledge, space, resources, and social-political processes (compare Carney, 1996; Freidberg, 2001a; Rocheleau et al, 1996a). The focus on these structures provides an important foundation for arguing that men and women have differential opportunities and challenges in relation to environmental change and development. Feminist political ecology provides tools for political ecologists to examine gender and emphasises the importance of considering gender in the context of a variety of natural-resource issues. The emphasis within feminist political ecology, however, has largely remained on women and, indeed, in places in Rocheleau et al's book (1996a) 'gender' seems synonymous with 'women'. There is a danger in such a conceptualisation of falling back into essentialist understandings of women and their 'natural' connection to the land. This kind of essentialism masks a variety of political-economic, cultural, and symbolic processes by which gender is produced by environmental issues as well as being implicated in the construction of the 'issue' itself. In short, what is still not sufficiently highlighted is a clear understanding of how gender has come to be relevant in these contexts at all.

Towards a reconceptualisation of gender – environment
Within the mainstream development literature, gender politics are assumed to be most salient at local scales. Feminist political ecology has shown how women's knowledge, differential access, and rights are important at a variety of scales, yet the larger political-ecology literature continues to treat gender as primarily relevant only within households and communities (compare Bryant, 1998; Peet and Watts, 1996b). Schroeder's (1997) work on gender and development in the Gambia has been an important corrective to this and has illustrated how gender is salient at the level of international policy. He demonstrates how gender relations are contested in the context of development projects through an examination of international projects designed to benefit women. These projects were undermined by subsequent projects that had an explicit environmental focus leading to the demise of gains made by the women-centric projects (see also Mackenzie, 1995; Schroeder, 1997; Schroeder and Neumann, 1995; Schroeder and Suryanata, 1996). Through gendered property rights, men were able to reassert their claims to land that women had improved under earlier women's projects

(Schroeder, 1997). This kind of analysis demonstrates how gender relations become significant in shaping environmental disputes and can lead to unexpected outcomes (Carney, 1996; Freidberg, 2001a; 2001b, Gururani, 2002; Rocheleau and Edmunds, 1997). It further shows how gendered rights and access to land are reconfigured through development projects. In this case, and in that of Carney's work on the Gambia (1994; 1996), women's rights to particular plots of land and their labour-input requirements were renegotiated as development projects promoted new cultivation regimes and access to markets. As a consequence not only were men's and women's roles reconfigured, but environmental change was closely linked to these struggles over roles and resources.

In India Gururani (2002) has argued for the need to reconceptualise nature in relation to gender. She draws from poststructuralist thinking on nature (Braun and Castree, 1998; Haraway, 1991; Latour, 1993; Swyngedouw, 1999) to suggest that 'forests' are formed from the social politics of work, access, and control as well as from the biophysical aspects of them. She uses a case study of forestry in the Kumaon Himalaya to illustrate her argument. In her work there is an implicit understanding that social relations constitute environments and are transformed through daily interactions of people, forests, and work, providing an excellent foundation from which to examine the mutual constitution of social relations and environments. In her work, however, the focus is on reconceptualising nature, and the meanings of gender are not made entirely explicit.

My analysis here builds on this work in examining not only the ways in which gender relations shift within community forestry in Nepal, but also how gender and other subjectivities, such as caste, are constituted and contested. What I am suggesting is that there is a need to examine not only how gender *roles* change, but also how gender as a socially constructed concept is reinscribed by struggles over resources. How does the construction of subjectivities, such as gender and caste, become significant in shaping the outcome of environmental issues? Through what struggles and contestations are these subjectivities (re)defined? Although Carney, Schroeder, and Gururani examine how gender roles and social relations are reconfigured, they fall short of demonstrating how what it means to be a man or a woman is (re)inscribed by the struggles they describe.

My argument also links explicitly to ecological conditions to examine how these struggles in part produce environments materially and symbolically (see Gururani, 2002). Many political-ecology studies treat the ecological environment as a background or context (Bryant, 1998; Escobar, 1995; Peet and Watts, 1996a; Sundberg, 1998) although some more recent work has attempted to engage more directly with ecological change (Sneddon, 2000; Swyngedouw, 1999; Zimmerer, 2000). Within mainstream environmental debates it is the environment that is the focus of attention. If the environment is at risk it is difficult to make a clear argument about why we need to care if men and women have a different experience and knowledge of that risk, especially when the consequences of such differences vary from context to context. But, if gender is a *process* that becomes significant in contingent and specific ways with variable and unpredictable ecological outcomes then gender relations need to be analysed as both a fundamental cause and a consequence of environmental issues.

Nature, work, and gender
Thus, I suggest that work on gender and environment needs to move away from an explicit focus on how gender structures development and environmental outcomes to a focus on how gender and environment are mutually constituted. This requires an engagement with the relationships between development projects, subjectivities, and (re)productive activities, as well as material transformations of ecosystems.

As argued above, gender in this context refers to the processes by which subjectivities are produced. Unlike 'gender roles' (see Connell, 1987), subjectivities are performed and contested through social interactions that are always imbued with power (Butler, 1997; Mahoney and Yngvesson, 1992). Gender thus does not refer to women or to differences between men and women. Rather, gender is the process through which differences based on presumed biological sex are defined, imagined, and become significant in specific contexts (Butler, 1992; 1997; Mahoney and Yngvesson, 1992; Mehta and Bondi, 1999; Scott, 1991). As Butler (1990; 1997) has argued, gender is performed by subjects and it is only through this performance that gender takes on any meaning at all. Yet these performances are imbued with power, and attempts to resist culturally prescribed performances are somewhat contradictory. As Mahoney and Yngvesson (1992) have argued, in order to resist gender domination, subjects must first accept and internalise aspects of this domination. For example, as I elaborate below, it is only by accepting a notion of 'women's work' that women can call on aspects of their work to resist new work expectations placed upon them. Central to this understanding is the notion that the contradictory performance of gender leads to its (re)inscription (Butler, 1990) and, in combination with the performance of other subjectivities including class, race, caste, and ethnicity, is embedded within the (re)production of material and symbolic social inequalities (Kobayashi and Peake, 1994).

Butler's work has been crucial in conceptualising how gender is not static but rather is constantly (re)defined and contested in the contexts within which it is invoked (Bondi, 1993; Butler, 1992; Scott, 1991). Yet, most of Butler's work remains highly abstract, and how gender plays out in particular contexts and intersects with other aspects of subjectivities is not explored with the same depth as in some work in geography (Bondi, 1993; Bondi and Davidson, 2004; Kobayashi and Peake, 1994; McDowell, 1999; Massey, 1994). For example, Pratt and Hanson (1994) argue that place is one context within which gender is constructed. Their research on working-class women showed that the material and symbolic meanings of places were significant in shaping women's employment and mobility, which in turn shaped 'women's work' (Hanson and Pratt, 1995; Pratt and Hanson, 1994).

Butler also fails to take account of how space is not a static background for social relations, but rather is constructed by social relations and as such is constantly changing (Massey, 1994). Massey (1994) demonstrated how notions of difference produce the form, function, and meanings of particular spaces at the same time that social relations are enacted and contested in space. This work in urban geography has shown that conceptualising space as 'stretched out social relations' (Massey, 1994) allows for an examination of how and why 'global' processes, such as capitalism, occur differently in different places, with variable and changing consequences for both space and gender relations. More recently, Bondi and Davidson (2004) have argued for a poststructural understanding of the gender–space nexus that demonstrates how subjectivity cannot preexist its environment. Drawing from studies on agoraphobia, they demonstrate how the boundaries between subjects and space are not definitive but rather emerge through interaction. Here, I am interested in exploring how place (and environment) are important in defining what it means to be a 'woman' or a 'man', definitions that in Nepal are also embedded within other aspects of subjectivity such as age and caste.

It is thus critical to explore the contexts within which gender and other social relations are performed, contested, and (re)produced. The gender–environment nexus is one such context and an important one within development (see Harris, 2006). Many development projects in agrarian societies are targeted at various aspects of the environment, whether to improve agricultural yields or to protect soils,

forests, and wildlife; most of these projects neglect gender (Adams, 1990; Batterbury et al, 1997; Blaikie and Brookfield, 1987; Escobar, 1995; West and Brechin, 1991). Yet, as political ecologists have shown, all environmental actions are embedded within social fields of power and political economies that shape both the social and ecological outcomes of such interventions (Bebbington and Batterbury, 2001; Bryant, 1998; Escobar, 1995; Peet and Watts, 1996a; Swyngedouw, 1999). I suggest that, because gender and subjectivity cannot preexist the environments in which they emerge, attention to the performance of gender and to other aspects of social difference is crucial for understanding how environmental issues come to be 'environmental' in the first place, and why they take the social and ecological shape that they do. Applying this argument to an explicit examination of ecological issues means that it is possible to explore how and why similar processes, such as rainforest logging or conservation projects, produce radically different ecological and social consequences in different places.

To explore this nexus, I apply the insights offered by feminist theorising on gender and space to ecological environments in an explicit way. I want to emphasise that subjectivities are defined and contested in relation to *particular* ecological conditions and that such specificity has consequences for both gender and environment. Subjectivities are developed relationally and always in the context of power (Mahoney and Yngvesson, 1992), but they are also developed in the context of environments [see Bondi and Davidson (2004); and Nelson (1999) for an argument about the need to situate performativity]. What this might mean in terms of understanding ecological contexts has not yet been given sufficient attention.

In the next section I focus on the ways in which subjectivities are performed and (re)produced in the context of community forestry in western Nepal in order to tease out the emergence of both gender and ecology. Working the land is a key way in which people shape ecosystems, and also, in Nepal, it is one of the very significant ways in which men and women and different castes are constructed as being different. Thus, one arena for the resistance of gender and caste in Nepal is land use, and specifically work activities. By examining how gender and caste are invoked, contested, and complied with in the context of natural-resource management, the ways in which these social relations become salient in environmental issues are illuminated.

To make this abstract discussion more concrete I explore ethnographic events from my fieldwork on community forestry in Nepal.[2] They illustrate the simultaneous destabilisation and reproduction of social relations of power in relation to and with material consequences for natural resources.

Gender and work in Nepal
The forests in Nepal are well integrated into agricultural systems and provide leaf litter, timber, firewood, fodder, and grazing resources. Given that fuel and chemical agricultural inputs are inconsistently available in most parts of the middle hills, resources from forests are central to many people's livelihoods. They have been the subject of much national and international concern since the early 1970s when Nepal was declared to be in a state of ecological crisis (Blaikie et al, 1980; Eckholm, 1975; Messerschmidt, 1987; Pitt, 1986). International experts perceived that Nepal's hillsides were being deforested at dangerous rates, causing massive landslides and soil erosion. In response, development efforts related to forests began in the late 1970s with the advent of pilot community-forestry projects (Gilmour and Fisher, 1991). Donor agencies such as the World Bank, USAID, and bilateral aid programmes quickly sponsored

[2] The information for the case study was collected using interviews and participant observation during November 1993 – July 1994, December 1997, and December 1998 – August 1999.

the formation of user groups throughout the middle hills of Nepal, particularly those districts relatively accessible from the main hill cities of Kathmandu or Pokara (Graner, 1997). Community forestry has become a government-sponsored and foreign-donor-sponsored project that turns the management of forests over to village user groups.

Forest management in Nepal has taken a variety of forms historically and some of these regimes persist or continue to influence present management (Bhattarai et al, 2002; Nightingale, 2003). Under the Rana government that ruled Nepal from 1846 to 1951, forests were granted as payment to military and other government officials, whereas, in other parts, forests were considered to be property of the state but were given to villagers to manage (Regmi, 1988). In Mugu district the user group I worked with had been given the right to manage its forest in 1919, controlled by rules that are surprisingly similar to current community-forestry rules (Nightingale, 2003; 2005). The village headman was responsible for overseeing the harvesting of resources, and villagers gave him gifts of food in exchange for necessities such as timber and large amounts of leaf litter for insulating houses. According to oral histories this system worked well and protected the forest from overuse.

In 1957 Nepal's forests were nationalised, giving control over them exclusively to the state. This move was done in part to protect Nepal's forests from what was seen as inappropriate use by villagers. In practice, forest management continued to be done at the village level until much later (Messerschmidt, 1987). The headman system persisted in Mugu until approximately the mid-1970s when control and ownership over forests was taken over by the District Forest Office (DFO). At that time the DFO was located in Jumla, a gruelling two-day walk to the south; thus in practice there was virtually no oversight. The villagers lost control of the forest and it was rapidly depleted as people from all over the valley began using it. The establishment of Rara Lake National Park in 1978 at the top of the valley contributed to pressure on resources. People from villages who historically had not used this particular forest now depended on it for most of their resources until community forestry was established in 1992, effectively limiting the number of users.

Community forestry replaced state management—in practice a situation of open access[3]—by giving village user groups control over their forests again. Under community forestry, the DFO rangers assist villagers in setting up user groups and oversee their management activities, but groups have autonomy over daily management (Gilmour and Fisher, 1991). The programme has become a global model of 'best practices' development because it gives villagers access to necessary resources and has led to clear improvements in forest conditions. It is based in development models that focus on villagers' basic needs, but which are fundamentally concerned with protecting 'fragile' forest ecosystems. In the beginning the projects exclusively grew tree plantations on denuded slopes and prevented villagers from poaching resources (Graner, 1997). Over time, the programme changed focus, however, and it is now oriented around four main goals: (1) providing for villagers' basic needs, especially for the poorest of the poor; (2) promoting economic development through the sale of forest products; (3) instilling democratic institutions into communities in the hills; and (4) conserving forests (Gilmour and Fisher, 1991; Graner, 1997). These goals are in many ways embedded within the idea that villagers do not already possess appropriate

[3] Open access refers to common pool resources that are not managed by a group of users. By definition, common property refers to common pool resources that are managed by a clear user group. Community forestry is thus a form of common property and, although state management could be a form of common property as well, the lack of effective oversight led to a situation of open access (Arnold, 1998; McKean, 1992; Ostrom, 1992).

skills and knowledge to manage their forests and thus community-forestry programmes are oriented around such knowledge transfer.

There has been a clear recognition that 'gender' is relevant in community forestry given women's role in collecting forest resources, leading to a focus on women's participation and even to the development of some women-only-controlled user groups (Kharel, 1993; Nightingale, 2002). Here, gender is synonymous with 'women' and is considered primarily to be an issue of equity and of women's empowerment rather than gender relations being a potential cause of forest decline, although to some extent women are also considered to be better custodians of the forest.

The composition of community-forestry user groups is based on either historical claims to forest land, or current local politics that allow groups to claim exclusive rights to tracts of forest. Once formed, a user group develops a management plan with assistance from the DFO rangers and is required to hold regular meetings, keep accounting records, and punish violators of the management plan. The plan is a legally binding document that gives use rights to the group and also holds the group as a whole accountable to some overriding national forest rules (such as not building houses within the community forest, or not setting forest fires) (Shrestha et al, 1995). The programme has given user groups a remarkable amount of autonomy and, importantly, allows them to control revenue generated from the sale of some forest products. It is expected that the user-group committee will represent the interests of all users and towards that end the DFO encourages the committee to include women and members of different castes.

These changes in institutional practice have been significant for forest management in many places (Kanel and Varughese, 2000) and particularly in Mugu. The historical systems excluded women and lower castes from any claim to control over forest resources and certainly must have privileged those with connections to the headman. The status of the headman was thus closely linked to control over forests. This linkage meant that the ecological state of the forest was shaped by the degree to which the headman was respected and had de facto control over it as well as by his judgment in granting access. In Mugu people emphasised that the headman had been 'strong' and universally respected, and thus people 'minded'—meaning they conformed to his rules. The system also served to constitute hierarchies around caste and gender. The headman was, without exception, highest caste and male, and given the importance of forest resources, he served to (re)inscribe high-caste men symbolically and materially as those with the most economic and social power.

State management, however, proved to be worse, and, at least in Mugu, people speak bitterly of the situation of open access and rapid depletion of resources that ensued. The power of the village headman was undermined by the loss of control over forests and, in many ways, the old respect and power given to him was transferred to the DFO rangers when an office was established in Mugu. These transformations in gender and caste had tangible ramifications for forest ecosystems as more of the mature timber trees were cut and more animals grazed the understory, leading to a thinning forest canopy and low recruitment of seedlings (Nightingale, 2001).

These institutional arrangements intersect with locally based systems of labour allocation and politics around gender, caste, and age (Nightingale, 2003). Work in the agroforestry systems of Nepal is highly segregated based on social difference—particularly caste and gender, although class and age intersect with these other relations in interesting ways (Nightingale, 2001). Married women notoriously do most of the heavy work related to agricultural production, and, although this is empirically substantiated (Agarwal, 1994; Gururani, 2002; Hobley, 1996; Shiva, 1988), the focus on women has somewhat obscured the role of the lowest castes in providing agricultural

labour under feudal-type relationships in many places. This is particularly true in the Karnali zone of northwestern Nepal where caste and gender relations are complexly intertwined and are based on sharp distinctions concerning who will do particular kinds of work ('conservative' or 'old-fashioned' work in the words of my Nepalese research assistants).

The community I worked with consists of four castes in three villages who manage a 124 hectare forest: the two highest castes, Brahmins and Thakuris, live in one village; middle-caste Chhetris live in the second village; and lowest-caste Kamis live in the third. Caste hierarchies are conceived of and maintained through a system of dietary and spatial practices related to ritual pollution. The Brahmins and Thakuris are considered to be pure castes that can be polluted through 'unclean' work, food, or spaces occupied by lowest castes. The Chhetris occupy an intermediate position, but for most food-sharing purposes they are considered to be 'clean' castes. Another important way in which caste distinctions are defined is in relation to specific work activities and there are many tasks that the higher castes refuse to do. Similarly, gender distinctions are also in part defined and maintained through work, and many routine agricultural and household tasks are considered to be 'women's work' regardless of caste.

Gender and caste, then, in this context are constituted in relation to space in a very direct way. The lower castes are not allowed inside the houses of higher (more 'pure') castes. Similarly, menstruating women and those who have recently given birth are considered to be polluted and are restricted from specific work activities and spaces. Women who are ritually polluted are not allowed to leave the animal stables or touch household implements for seven days, or for longer after giving birth (Bennett, 1983). They are thus excluded from doing much of their usual work. Although it is a break from many of their regular tasks, many women complain bitterly about the requirement that they spend their time outside regardless of the weather and the need to cook their own food over an open fire.[4] Gender is therefore in part defined in relation to particular spaces. A good friend in the village actively contested these spatial restrictions and spent only three days instead of seven in the animal stables when menstruating. Yet, she often justified her behaviour based on her emaciated body, which was still sick after a bad bout with tuberculosis such that her body hardly resembled a woman's body anymore. This kind of contestation of what it means to be a woman— needing to stay outside during menstruation—is predicated upon accepting that definition first. She did not dispute that menstruation is polluting, rather that because she was no longer having the physical symptoms of menstruation she is in some sense only partially a woman and therefore needs to obey the restrictions only partially.

Similarly, lowest caste men and women who 'clean' themselves by avoiding polluting foods and washing with soap (an expensive luxury that most higher caste families could not afford) are allowed into the outer recesses of people's homes (see Nightingale, 2001) whereas others were restricted to the open roof tops. The coproduction of caste, gender, and space in western Nepal therefore is a good example of what Butler calls 'ambivalence' or the process by which the subject is both a product of and a resistance to subordination (1997, pages 11–13). Just as in the above example, it is only by accepting the notion of ritual pollution that opportunities to contest it such as by occupying 'pure' spaces arise (see Mahoney and Yngvesson, 1992). This kind of ambivalence is also evident in the two examples below, which illustrate the mutual constitution of gender, environment, and ecological change.

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[4] The requirement that women sleep outside while menstruating is changing in this area because of Maoist violence in northwestern Nepal.

The community-forestry user group is embedded within these processes of caste and gender subjectivity formation. The group is controlled by high-caste men who are direct descendents of the village headman, and by wealthy, educated Chhetri men. They have claimed control over the committee on the basis of their lineage and their literacy skills. Most of the highest caste men and some Chhetri men are literate whereas few women and lowest caste men are, making literacy a marker of high status. Regular meetings are held which are attended by a cross-section of the user group, but generally Brahmin and Thakuri men from Chaina are in the majority. The committee has a representative from Sangkhola—the wealthiest man from that village—and between two and four women from Chaina and Hernikanth, generally wives of or in one case the mother of prominent men. Within the group, gender, caste, and political-party membership are key relations that fragment the group. Indeed, in many cases, the issues debated appeared to be only superficially about the forest and were instead conflicts arising from these social relations (Nightingale, 2001; 2002; 2003).

The two ethnographic incidents I want to relay both revolved around the harvesting of leaf litter. Leaf litter is mixed with animal manure as the primary source of agricultural fertiliser and the collection of it is done exclusively by women. Most other work, such as planting, gathering firewood for household use, and carrying water, is done the vast majority of the time by women, but men do participate in these activities depending on their caste, class, and the number of women in their household. Collecting leaf litter, however, is virtually never done by men although people said there were no particular cultural or religious reasons why they could not; it is simply considered to be women's work.

When I was in the field in 1994 the community-forest user group had been in operation for only a year and a half and was still in the process of defining the harvesting restrictions for forest products. At one meeting a group of Thakuri and Brahmin men proposed limiting the harvesting of leaf litter to two five-day periods a year. The idea was to protect the soil of the forest by leaving leaf litter on the ground for most of the year. From an ecological perspective this would help to reduce erosion and increase the soil fertility of the forest.

The high-caste women at the meeting were concerned that restricting the harvesting of leaf litter would add substantially to the hours and intensity of their work during those periods and they loudly protested against the measure. One Thakuri woman said: "How can we gather enough pine needles for six months in such a short period of time? And what will we do if a woman is sick or the daughter-in-law is having a baby during that time?" (community-forestry meeting, 17 March 1994). Their concerns were based on both an increase in work and local understandings of gender which include the restriction of women from doing their regular work after they have given birth.

The issue buzzed through the village and one afternoon a week later a group of Brahmin and Thakuri women speculated about how much they could really gather in that amount of time. Their village is located down in the valley and the forest is a full forty-five minute walk away, or further to get to the good places. One woman said that at her natal home they had limited harvesting to just two days. She got up and acted out for us the frantic movements of the women in that village when gathering leaf litter compared with the slow way in which they themselves adjusted their shawls and hoisted their loads. Everyone erupted with peels of laughter, but the point was made: the measure would add to the intensity of their work during those periods of time. I asked if the Chhetri and Kami women were also concerned. A Thakuri woman replied that, no, they were not as concerned; the lower castes lived on the forest boundary and already kept large stockpiles of leaf litter at their houses.

This example illustrates two aspects of the ways in which gender is inscribed in relationship to work and environment and the consequences of this for community forestry. First, leaf-litter collection is understood as women's work and thus the new restriction serves to identify women's work with ecological decline. Because the high-caste women preferred to collect small amounts of leaf litter on a continual basis, their work was seen as disrupting the ecological health of the forest. Athough the limiting of leaf-litter collection was done based ostensibly on ecological principles it was deeply embedded in women's work. Certainly there was an ecological motivation for the new restriction, but it is also not an accident that it was women's work that was seen as expendable by the high-caste men. Their own work was not affected by the new rules.

The high-caste men who control the committee proposed the rule with encouragement from the DFO rangers. The rangers were interested in retaining leaf litter on the forest floor to improve the absorption capacity of the soil and to allow more nutrients from the leaf litter to be integrated into the forest soils. The men believed at some level in these ecological principles, but they were also interested in establishing good relations with the DFO. The DFO staff are a potential source of jobs and favours as well as allies in their local struggles to retain de facto control over their forest. A key way in which they build this alliance is by demonstrating their knowledge of 'scientific forestry' and by following the suggestions given by the DFO (Nightingale, 2005; Pigg, 1996).

The leaf-litter restrictions were thus produced out of these overlapping interests, relations, and ecologies, and enforcing the restriction serves to stabilise them over time and space. This incident, then, served to bring gender into the forefront of environmental conservation and in the process to reestablish labour relations based on gender. The restriction did not lead to any renegotiation over men's refusal to participate in leaf-litter collection or of the value of scientific forestry in building the ecological health of the forest. Thus the issue reinscribed particular aspects of what it means to be a 'man' and a 'woman' in Mugu and also what it means to conserve the forest.

Second, the Thakuri and Brahmin women's responses themselves could not fundamentally lead to a redefinition or renegotiation of 'women's work'. Rather, as their comical portrayal of the consequences revealed, the women were well aware that their own work intensity had increased. In their protests of the measure they highlighted that gender determines who collects leaf litter, and they drew on discourses of ritual pollution to explain why some women would not be available during the established collection time. In this incident, then, 'women's work' as a social category and material practice was (re)produced in relation to the new harvesting restrictions. The importance of ritual pollution in defining which women could do work and which spaces they could occupy was critical to the potency of their protests. Without accepting their ritual pollution and leaf-litter collection as their work the women could not have used this kind of protest. Their protests unsettle somewhat the gender hierarchies, yet, by invoking 'women's work' and the caste-based distinctions that bound it, they simultaneously (re)inscribed those social inequalities.

The fact that the women were willing to protest at all is significant. According to local cultural ideas, this is not a usual or necessarily acceptable behaviour for women. Women are expected to obey their husbands, fathers-in-law, and other village elders. In most public contexts women would not defy their husbands. And, although some women have a significant input within more private spaces, women in Mugu spoke of feeling dominated by men especially in relation to the control of key household assets. Yet the women did not hesitate to protest loudly against the measure in direct opposition to the husbands of the original two women. I believe this was in part because of the burdensome nature of gathering leaf litter, and also because of the importance

of leaf litter to their livelihoods. Without it they cannot expect to get decent crop yields, a point that was emphasised to me many times. Their fear of not having enough, and of the work required to obtain it, caused a slight shift in their performances of gender.

This incident illustrates well the ambivalence of subjectivity performance and how individuals both internalise and resist gender (compare Butler, 1997; Mahoney and Yngvesson, 1992) and also how gender is inextricably bound up with caste. The married Brahmin and Thakuri women were, on the one hand, asserting their authority within the user group by protesting the measure and speaking out against their husbands, and, on the other hand, invoking the gender division of labour to do so. They accept that they are expected to do work that men are not, yet they are willing to resist other aspects of power relations between men and women *as a result of* accepting 'women's work' (see Mahoney and Yngvesson, 1992). This kind of protest simultaneously desta- bilises and reproduces gender in the context of community forestry. Gender becomes salient because of both labour relations and rules that target women's work without also targeting men's work, and, at the same time, gender subjectivities are contested as the women (re)define in what spaces and contexts they can speak against men who are considered their superiors. These actions thus make community forestry an important context within which gender is (re)inscribed.

In this example, it is not adequate to imply that gender was the only significant social relation, however. The Chhetri and Kami women had little to say about the harvesting restriction, largely because they already tended to collect leaf litter at key times of the year rather than collecting small amounts continuously. At the time, they felt it did not affect them much; yet it is also significant that their concerns were not solicited by the user group before passing the measure. The high-caste women and lower caste women had different perspectives and they had different motivations either to accept or to contest 'women's work' in community forestry; yet the men made decisions about leaf litter that assumed all households would be equally affected. It is important to note that all women's perspectives about the new rules were either not solicited or disregarded when the measure was passed, (re)enforcing the authority of (some) men to make resource-management decisions. In these ways the performance of gender, as it is intertwined with the performance of caste and labour relations, simultaneously divides women of different castes as their work is not identical and serves to lump their concerns together as largely irrelevant.

The other ethnographic incident happened five years later in the spring of 1999 in the same place. That year, because of other internal conflicts, the user group had been slow to announce the harvest of leaf litter. The Kami women became impatient and decided to harvest what they needed without consulting the user group. The other women, from both the high-caste village and the Chhetri village, heard about this and decided to confront the Kami women in their village and demand that they pay a fine or turn over their cooking pots as collateral. It is important to note that the higher caste women did not want to bring the Kami women before the user group to levy a fine, which is the way rules are normally enforced. Rather, they wanted the women to pay *them* a fine and therefore keep the conflict outside the boundaries of the formal group.

When we arrived in the village,[5] all the women gathered on a roof top and started shouting at each other. The higher caste women loudly asked why the Kami women

[5] I was with the women at the time, which I do think was significant. A large group of women had arranged to go to the forest together with me and I believe it was both the unusually large group and my presence that gave them the authority to go to the Kami village. They did want to settle the issue themselves; the particular context gave them the opportunity.

had harvested out of turn, and demanded that they pay a fine. The Kami women were also talking loudly, but they focused their efforts on eliciting pity. The higher caste women then insisted on taking the cooking pots. The Kami women, most of whom are very poor, tried to reason with the high-caste women. One said, "oh sahib, don't take our pots, what could you do with them? They are [ritually] polluted, you can't bring them into your house, you will pollute yourself, what do you want with them?" (participant observation, 22 February 1999). The higher caste women were eventually convinced by this argument and left without the pots, intending to collect the money later.

As in the first example, this incident illustrates the complex and contradictory ways in which both gender and caste are destabilised and reproduced. The low-caste women utilised the discourse of caste—the ritual pollution upon which caste divisions are based—to convince the Brahmin and Thakuri women to leave the pots behind. By doing so they did not contest the fundamental logic of caste; rather they reinforced it, indicating that at some level they have internalised the power relations inherent in caste. Yet, they also used caste ideals, which are oppressive to the lower castes, to contest the domination of the higher caste women. Again, it is by accepting (at some level) the subjectivity of caste that they were able to have an effective weapon to resist the high-caste women's demands (see Butler, 1997; Mahoney and Yngvesson, 1992). Thus here, when caste and gender are viewed together, different kinds of contestations of oppression and conflicts over resources emerge. Through their acceptance *and* resistance of caste, the women question and reestablish the boundaries between castes in the same moment. They do this through the physical act of collecting leaf litter from the forest and through their use of caste discourses to resist punishment by the higher caste women.

The ways in which gender matters to authority within the community-forestry user group were also contested in this incident because the high-caste women were subverting the normal process through which user-group fines are levied by doing it directly themselves. Under community-forestry rules, the low-caste women should have been brought before the user group where they would have paid a fine to the men who control the committee. The Brahmin and Thakuri women were thus claiming authority in relation to the lower caste women that they did not command within the user group as a whole (Nightingale, 2002). Yet, by claiming authority over the regulation of leaf-litter collection and over the low-caste women, the high-caste women were simultaneously taking power and reinforcing the idea that the harvesting of leaf litter is the responsibility of women only.

As in the first example, gender and caste are both significant for who became involved in this particular conflict and for the terms under which it was played out. The difficulties of separating gender and caste relations become readily apparent as the performance of gender is inextricably bound up with the performance of caste, marriage, and age. It is only married high-caste women who collect leaf litter, whereas both married low-caste women and unmarried low-caste women collect it. The harvesting restrictions are burdensome to most women in the user group (despite the lower caste women's initial ambivalence about them), and are a form of oppression imposed by the men who control the committee. The lower caste women also feel oppressed by the wealthier high-caste women who claim the right to punish their deviant actions; yet they clearly do not accept this domination passively but rather resist it through their actions and words. Such an analysis reveals the unstable ways in which social power is performed and reproduced. It is crucial to explore these contradictions as they provide the potential to contest subjectivities, and also they demonstrate how the act of invoking social difference materially and symbolically simultaneously reproduces them (see Butler, 1997; Gibson-Graham, 1996; Kobayashi, 1994; McDowell, 1999).

Finally, both of these incidents were embedded within *particular* ecological conditions. The perception of ecological decline catalysed the formation of the user group and is one of the main reasons why the user group is motivated to limit harvesting of key resources. Leaf litter was one of the first resources to become a material and symbolic icon for forest conservation. Although I am not going to dispute the ecological benefits of leaf litter, I think it is important to recognise that this conservation icon is intimately connected to gender and work. Other harvesting restrictions, such as permits for timber cutting, did not have the same kind of temporal implications for men's work as limiting leaf-litter harvesting had for women's work. Timber permits serve to reduce the overall cutting and to provide an income to the group (especially the men who control the group and the low-caste men who do the harvesting) but they do not require that a fixed amount of timber is harvested in a limited time period. The restrictions on leaf-litter harvesting, in contrast, were designed not to limit the total amount collected, but rather to retain the litter on the forest floor for more months per year. This necessitated adding a time pressure to women's harvesting activities. It is not men who suffer directly the consequences of limiting harvesting. Yet, as men decided to make the rules, it is clear that women do not always feel compelled to uphold them.

Contestations over social relations can have concrete ecological effects: the Kami women harvesting leaf litter before the prescribed time undermined the ecological benefits of limiting harvesting. In my fieldwork I observed other acts of resistance (compare Scott, 1985) that involved the breaking of user-group rules such as the cutting of green wood, poaching of timber, and grazing animals during restricted times, all of which have demonstrable ecological consequences, albeit of varying degrees of importance. Most often these acts were a response by marginalised members (women and lowest castes, occasionally poor higher caste men) who felt their needs were not addressed by the user-group rules, or they had not been sufficiently consulted in the formation of the rules. These acts of resistance are significant sources of power for marginalised group members as in the cooking pots example, even if they were not necessarily done consciously. Yet, by using these acts of resistance, people have to accept that such tasks are the domain of women and lowest castes, thus reproducing gender and caste hierarchies and the symbolic meanings of both social difference and natural resources that are associated with women and lowest castes.

Environmental change is thus in part constituted by material practices and by the production of symbolic meanings of resources. In the examples given here, leaf-litter harvesting restrictions are as much (if not more) symbolic of environmental conservation as they are symbolic of actual environmental change. This insight points to the need for attention to both material practices and symbols across multiple scales. Top–down development programmes construct symbolic practices through a focus on particular kinds of resources[6] (for example, firewood or leaf-litter forests rather than multiuse forests) and through assumptions of gender roles within communities. These assumptions (re)enforce particular axes of difference, making it difficult for marginalised people to contest those subjectivities effectively with variable but significant ecological implications.

These examples also point to the difficulties of separating ecological change from social relations. The kinds of harvesting practices that occur, the extent to which various group members are motivated to uphold harvesting rules, and the overall ability of group members to abide by restrictions are all embedded within the social-relations–environment nexus. In other words, ecological conditions in part produce the material and symbolic work practices that constitute gender and other subjectivities, at the same time

[6] Indeed, although it is outside the scope of this paper, I would argue that development programmes *produce* resources (Braun and Castree, 1998; Demeritt, 1998; 2001).

that the contestation and performance of subjectivities shape ecological change. Labour relations thus are constitutive of ecological conditions, a fact that is often neglected by development planners who seek either specific labour outcomes (providing income for marginalised groups) or specific environmental outcomes (the protection of specific resources), leading to unexpected and often disastrous consequences.

Gender as it intersects with the performance of other subjectivities not only shapes who is involved in what kinds of work and therefore what kinds of issues pertain to community forestry, it also is constituted through the process of community forestry. As a result, evaluations of ecological change and development cannot be isolated from a consideration of the construction of subjectivities within place-based projects.

Conclusion

In this paper I have outlined the importance of gender and the production of other subjectivities as central analytical tools for analysing human–environment interactions. The political-ecology literature has emphasised that access to, control over, and the distribution of resources are at the core of most environmental issues, both in terms of social inequities and in terms of ecological decline. Who is responsible for creating harvesting rules, who actually does the work, and what contestations result are key aspects of environmental issues. Uncovering the processes by which these occur is critical if we hope to challenge the overexploitation of both land and people. The feminist literature on gender and on the performance of other forms of difference provides an analytical entry point for exploring how subjectivities both constitute and are produced by environmental issues. This reconceptualisation of gender within natural-resource management reveals the ways that gender and caste become salient within community forestry and the ways in which men and women of different castes have a different experience of it.

When gender is conceptualised as a linear or structuring relation, a consideration of gender in environmental issues leads primarily to the promotion of strategies to equalise the impact on men and women. Although such measures can be important, they do not always produce the anticipated outcomes because of the dynamic relationship between gender, environment, and other aspects of social and cultural life. Once gender is reconceptualised as a process, these relationships can be brought into view and examined within environmental debates. My fieldwork examples detail the way in which material and discursive acts of gender-based and caste-based resistance take place within environments and in relation to particular ecological conditions, and thus cannot be understood divorced from the environment. Analysing gender in this way demonstrates how ecological conditions are transformed and reproduced both materially and symbolically in contradictory ways through the process of contesting social hierarchies. To take this work further it is necessary to ask: what opportunities for positive ecological and social change are produced by understanding the complexities of these processes?

Recognising the mutual constitution of social relations and environment requires that planners reevaluate how they formulate development programmes. Rather than having separate gender, basic needs, or environmental programmes, it is necessary to reconceptualise these not as additive processes but as embedded within each other. In addition, it is crucial to recognise the contingent relationships that intersect at the social-relations–environment nexus. It is not possible to develop one formula for the implementation of community forestry that will be sensitive to gender and caste relations in all contexts. In some contexts, other relations such as political-party membership or class may be more salient for defining labour relations and contestations over resources; the critical issue is how subjectivities become significant and are

played out within development projects and in relation to environmental change. This analysis points to the need for more attention to *how* projects are implemented and the importance of allowing for sufficient flexibility and attention to the shifting relationships between environment, development, and difference.

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