



Virtue and vulnerability: Discourses on women, gender and climate change

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ABSTRACT

In the limited literature on gender and climate change, two themes predominate – women as vulnerable or virtuous in relation to the environment. Two viewpoints become obvious: women in the South will be affected more by climate change than men in those countries and that men in the North pollute more than women. The debates are structured in specific ways in the North and the South and the discussion in the article focuses largely on examples from Sweden and India. The article traces the lineage of the arguments to the women, environment and development discussions, examining how they recur in new forms in climate debates. Questioning assumptions about women's vulnerability and virtuousness, it highlights how a focus on women's vulnerability or virtuousness can deflect attention from inequalities in decision-making. By reiterating statements about poor women in the South and the pro-environmental women of the North, these assumptions reinforce North–South biases. Generalizations about women's vulnerability and virtuousness can lead to an increase in women's responsibility without corresponding rewards. There is need to contextualise debates on climate change to enable action and to respond effectively to its adverse effects in particular places.

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1. Introduction

Where does gender figure in the debates on climate change? Dual themes recur throughout the existing though limited literature on gender and climate change – women as vulnerable or women as virtuous in relation to the environment. This imagery makes two viewpoints seemingly obvious: women in the global South will be affected more adversely by climate change than men in those countries and that men in the global North pollute more than their female counterparts. Common to both places is that women are not part of decision making bodies as are the men in their societies and that is to the detriment of women. In other words, women in the South are extremely vulnerable to climate change while women in the North are much more conscientious when it comes to dealing with climate change, possessing virtues of environmentalism which their male counterparts with their propensity for long distance travels and meat eating habits do not.

Policy statements and government documents in many countries echo these assumptions. In the United States, where the idea of long term changes in climate were contested until recently (and still is in some quarters), the House of Representatives issued a declaration on April 1, 2009 that recognized the disproportionate impacts of climate change on women and the efforts of women globally to address climate change. The

resolution, among other things, encourages the use of gender sensitive frameworks in developing policies to address climate change which account for the specific impacts of climate change on women (Lee et al., 2009). In this article I focus specifically on Sweden and India. Sweden has long been regarded to be in the forefront of progressive policy and action on gender equality as well as climate change legislation. Climate change has brought environmentalism to the mainstream political debates in India like never before. India has pushed for the need to link mitigation of the effects of climate change to development and the need for continued growth. Although equity and social justice are not always on the agenda, the promise of development holds an underlying hope that these issues will be addressed.

Women, as the particularly vulnerable subjects of climate change, is the only mention made to gender in the Indian Government's National Action Plan on Climate Change (NAPCC). In that one place, the NAPCC (2008:14) states that, "The impacts of climate change could prove particularly severe for women. With climate change there would be increasing scarcity of water, reductions in yields of forest biomass, and increased risks to human health with children, women and the elderly in a household becoming the most vulnerable. ... special attention should be paid to the aspects of gender." The Swedish Bill on climate and energy policy (Regeringens Proposition, 2008:220) echoes sentiments voiced above but with its own perspective: "Many developing countries are especially vulnerable to climate effects because of poverty, conflicts, *lack of gender and social equality*, environmental degradation and lack of food" (*my emphasis*). The Bill regards

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gender equality and women's role in development as having an important bearing on work with climate change in the South; in a Swedish context gender is seen as relevant only with respect to the transport sector.

These ideas are reminiscent of debates on women and development in the 1980s when women's work and involvement in environmental management began to gain attention. The recent gender and climate change literature also reiterates ideas about women's poverty, vulnerability and virtuousness. There are three main arguments in relation to women and climate change. Firstly, that women need special attention because they are the poorest of the poor; secondly, because they have a higher mortality rate during natural calamities caused by climate change and thirdly because women are more environmentally conscious. While the first two refer mainly to the women in the South, the last is especially apparent in the literature on gender and climate change in the North.

Some of these arguments that seem evident in a commonsensical way, have not always proven to be empirically rigorous, although many have taken on the stature of truth or fact. In the next section, I examine the premises on which these claims are based, that is, on arguments about women's poverty and vulnerability. Following that, I unpack these arguments by examining recent research on poverty, on the gendered effects of natural calamities and on women's purportedly pro-environmental behaviour. This leads me to question why, despite unconvincing and inadequate research, assertions about women's poverty and mortality are so prevalent in relation to climate change and gender. I analyse the consequences of these arguments for future research and alternatively, where we could go from here. In doing so, I highlight how a focus on women and their vulnerability or virtuousness can deflect attention from power relations and inequalities reproduced in institutions at all levels and in discourses on climate change. This focus can lead to an increase in women's responsibility without corresponding rewards. I end with a discussion on the need for contextualising the debate on climate change in order to be able to take action and respond effectively to the adverse effects of climatic changes.

2. Vulnerable and virtuous

It has been recognized that the effects of climate change will be harshest in tropical countries in the South and will affect the poor the most. This insight has led some to claim that women are more vulnerable to the effects of climate change for a number of reasons. According to Hemmati and Röhr (2007), women represent a disproportionate share of the poor and are likely to be disproportionately vulnerable to the effects of climate change (2007:7). Others note that 70% of the 1.3 billion people in the developing world living below the threshold of poverty are women (Denton, 2002; Röhr, 2006). Johnsson-Latham points to a World Bank study that claims that gender differences are greatest among the poorest families. Women also eat last and least in poor families (2007:42). The Swedish Defence Agency's base data report professes to present the major gender issues in climate adaptation from a Swedish perspective, 'Since climate adaptation has a high degree of international interdependence, if gender inequity aggravates climate problems in other countries, this can have significant indirect effects in Sweden' (Hansson, 2007:9). Similarly Oldrup and Brengaard write, 'In developing countries, women's needs are often not taken into consideration, and their participation in the climate change processes and debates is not sufficient at the national level' (2009:47).

It is also believed that women and children are 14 times more likely to die than men during disasters (e.g. Brody et al., 2008:6). Women's vulnerability is ascribed to cultural and gender mores in

many texts. One example is the Asian Tsunami where the largest numbers of fatalities were said to be women and children under the age of 15. It has been documented that women in Bangladesh did not leave their houses during floods due to cultural constraints on female mobility and those who did were unable to swim in flood waters (e.g. Demetriades and Esplen, 2008 citing Röhr).

A counterpart to women's vulnerability is their virtuousness. Women are considered more sensitive to risk, more prepared for behavioural change and more likely to support drastic policies and measures on climate change (Brody et al., 2009:15 drawing on Hemmati's work). Women's willingness for attitudinal change is a recurring theme in the literature on countries in the North. According to Johnsson-Latham (whose report commissioned by the Swedish government has been cited extensively by those working on climate change and gender), one must start by asking, who are the polluters? The unequivocal answer there, she believes, is 'men' and that men need to start paying for the pollution. In her view, gender specific patterns show in general that the polluter is a man, whether poor or rich (2007:34). She writes that instead of recognizing this, the focus of attention when it comes to dealing with climate change is on technology and technicians as a professional group. This group consists mostly of men – and they are portrayed as the solution to the problem (2007:26). Based on research on transportation in Europe, Johnsson-Latham points out that men own more cars and travel longer distances to work, thus emitting much more carbon into the atmosphere. She writes that women on the other hand, tend to travel shorter distances and most often by public transport, use cheaper alternatives like the bicycle or walk and tend to make socially rational choices. 'Whereas women represent a more human perspective by more consideration to road safety etc. it is men who dominate decision-making' (2007:44–60). Similarly, another piece of research found that although women in Sweden did not differ from men in cognitive risk judgments related to climate change, they tended to worry more about the environment (Sundblad et al., 2007). Danish researchers have pointed out that men's meat consumption surpasses that of women and since livestock rearing accounts for 18% of all greenhouse gas consumption, men tend to be more polluting. They also point to studies that show that women's consumption is more sustainable than that of men (Oldrup and Brengaard, 2009:21–23 drawing on the work of Fagt et al., 2006 on Scandinavian eating habits and the Danish consumer report 2008). In her work, Johnsson-Latham concludes by saying that women globally live in a more sustainable way than men, leave a smaller ecological footprint and cause less climate change. However, she mentions that well educated and better paid women travel further (2007). So it would appear that it is in fact women, but mainly poor women, who are most virtuous and conscientious in relation to the environment.

These arguments about women's vulnerability or virtuousness and their predisposition to being more environmentally friendly resonate with the women and development (WAD) or women, environment and development (WED) debates. Women were portrayed as closer to nature and more environmentally conscious than their male counterparts, a notion that held powerful sway in some development circles since the 1980s. Some of the present research on gender and climate change echoes those notions. But a large part of it also builds on assumptions about women's poverty and vulnerability to natural hazards.

3. Poverty, natural calamities and women's behaviour

In this section I examine research on the 'feminisation of poverty,' on the linkages between vulnerability and poverty as well on adaptation in face of environmental change. I go on to examine work done on gender and natural calamities, followed by research

on women's attitudes towards the environment. The section ends by exploring the implications of this body of scholarship for understanding gender and climate change.

3.1. Poverty and its 'feminisation'

According to Chant, the assertion that women make up 70% of the poor is anecdotal rather than empirically or statistically rigorous. It is usually coupled with what she considers as the deeply problematic assertion about the 'feminisation of poverty' a concept that has been contested by several scholars (Chant, 2010:1). The feminisation of poverty has been used to explain differences between male and female poverty in a given context as well as changes in male and female poverty over time. Typically, this approach has fed the perception that female headed households, however defined, tend to be poorer than other households. Empirical work has however cast doubt on this generalization and shown it to be inaccurate (Medeiros and Costa, 2008; Sen, 2008:6).

No scientific study is ever cited to document percentages such as the assertion that 70% of all poor people are women. Examining data from 1995, Marcoux writes that the 70/30 ratio of poor women to men is implausible given the age distribution of the global population and its household characteristics (1998). There is in fact little gender disaggregated data to support the feminisation of poverty thesis though more would be needed to study the differentiated impacts of poverty on men and women. Apart from that, people participate not necessarily as individuals but as family breadwinners in the labour market or otherwise. It is difficult to generalize about poverty without taking account of the existence and extent of all contributions to household income (Kabeer, 2008).

Chant points out that while on the one hand, the assertion about the feminisation of poverty has been useful in garnering resources for women, on the other, it simplifies the concepts of poverty and gender (2010:1). The unfortunate term 'feminisation of poverty', writes Jackson, has come to mean not (as gender analysis would suggest) that poverty is a gendered experience, but that the poor are mostly women leading to the fallacy that poverty alleviation would automatically lead to gender equality (1996:491). Others have also shown that poverty and gender discrimination do not necessarily go hand in hand. Rising incomes have not eradicated discrimination against women. While in no way a universal phenomena, excess girl child mortality in Tamil Nadu in India seems to have appeared most strikingly among upwardly mobile households (Harriss-White, 1999). The 2001 census in India makes it clear that the most adverse sex ratios among children are reported by some of its fastest growing, economically well developed and literate states (Premi, 2001). Sex determination tests have led to female foeticide for those who can afford new reproductive technologies (Patel, 2007).

Gender and poverty are two distinct forms of disadvantage. In her article 'Gender and the Poverty Trap' Jackson shows the inconsistencies in the assumption that all women-headed households are poor. Citing the work of Ahmad and Chalk from 1994, she points to the invalidity of the time-series data (due to high intra-group variations) on which assumptions about the poverty of women headed households are based (e.g. World Bank, 1989 and IFAD report). She draws on the work of several scholars (for example, Gillespie and McNeill, 1992; Lipton and Payne, 1994) who have seriously questioned arguments about food bias. She also shows that increases in mortality during famines affect men more than women, that women tend to have a greater life expectancy though they may not have better health, that violence has to do with other things than poverty and points to empirical evidence that shows that gender relations are in fact more equitable in many poor Indian households than in wealthier ones

(1996:491–498). The scepticism about the poverty of women headed households has led to the questioning of the thesis of the feminisation of poverty by several scholars (Kabeer, 2008; Davids and van Driel, 2010). The rising number of female headed households in many regions of the world partly reflects the unwillingness of women to continue accepting the injustice of their situation in conjugal homes. Women headed households have given rise to claims about the 'feminisation of poverty' but there is no necessary association between female headship and poverty (Kabeer, 2008:5).

There is a need to separate being poor from being women or the generalization that one often glides into – that all women are poor and that the poor are always more vulnerable. Poverty appears to have a self-evident relationship to vulnerability, since poverty tends to lead to greater vulnerability and vulnerability to climate change often leads to outcomes that perpetuate poverty. But there is no universal and does not have to be, a direct correlation between poverty and vulnerability (c.f. Eriksen and O'Brien, 2007). Vulnerability is generated by multiple processes and different situations as empirical research from different countries suggests (e.g. Eriksen et al., 2005; O'Brien et al., 2007). Eriksen and O'Brien point out that vulnerability varies among groups and individuals as well as over time. They cite examples from South Africa and Mexico where relatively higher-income farmers practising irrigated agriculture are vulnerable to climate and market risks because they are constrained from diversifying their livelihoods. They point out that there is no one to one mapping between poverty and climate change vulnerability and make a case for the need to look at poverty and vulnerability linkages (2007).

Carr's research on adaptation decision-making through a diversified livelihoods strategy in villages in Ghana's central region, found that the persistence of certain adaptations have little to do with material outcomes but in fact subsist on and reinforce unequal gender relations. It was clear to the author but also to the village women that access to a little more land would have enabled them to maximize personal incomes that they normally put to the use of the household to address the stresses and shocks endemic to these villages. Yet, the adaptation adopted by the household continued to balance women's farm size near a threshold of production that allowed them very little surplus that could be used for personal incomes. Women appeared to be complicit in a system that heightened existing inequalities and led to less than optimal adaptations (2008:698).

3.2. Women's mortality during calamities

The second argument for women's greater vulnerability is that more women die in natural calamities as for example in the 1991 cyclone in Bangladesh, the 2003 European heat-wave, and in Indonesia and Sri Lanka during the 2006 tsunami (see Araujo et al., 2008). Neumayer and Plumper's analyses of a sample of up to 141 countries between 1981 and 2002 indicated that the adverse impact of disasters on females compared to male life expectancy is clearly contingent on the extent of socially constructed vulnerability. They show that women died more where they were socio-economically disadvantaged. A systematic effect on the gender gap is plausible when disasters exacerbate existing patterns of discrimination (2007). Years of gender research and empirical examples from around the world have shown that discrimination can take many forms. These are often the result of intersecting axes such as socio-economic status or class, caste, ethnicity, type of employment and can vary in time in the same place. As researchers we need to examine the specific form of vulnerability and discrimination that people face in order to respond to it effectively. For example, research on women's vulnerability to flooding in Orissa, India showed that it is difficult to speak of gender effects

without at the same time speaking of caste and class that play a major role in defining women's vulnerability. Lower caste and lower class households were more vulnerable to the cyclones and flooding in the state due to their unfavorable location by the river. But that vulnerability was also dependent on the particular context. In the floods of 2001 and 2003 poor lower caste women were less vulnerable as they had been able to access government grants to build concrete houses that protected them from the flooding that women from some of the other castes were unable to avoid. Gendered effects were obvious however in ideals of women's behaviour and their need to maintain caste and honor attributes which were put under stress in such times (Ray-Bennett, 2009).

An exception to the contentions about women's higher mortality is the case of Hurricane Mitch where more men were said to have died than women. It has been suggested that this was due to existing gender norms in which ideas about masculinity encouraged risky, 'heroic' action in a disaster situation (Röhr, 2006). According to Bradshaw, who conducted research in the areas affected by Hurricane Mitch in Nicaragua, 'the idea of being able to say with certainty who is the most affected by disasters is interesting given that the impact of any event will be time, place and person specific or depend on a mix of location, event and vulnerability.' She argues that while poverty is a key component of vulnerability, it is not the only, nor necessarily the best, component in terms of predicting impact. Responses are subjective and will be framed by individual understandings of appropriate behaviour which, in turn, are shaped by cultural norms, including gender norms. Within Latino cultures, for example, the cult of 'machismo' may make men not women more likely to suffer loss of life during an event, whatever their relative poverty, due to their socially constructed roles and associated riskier behaviour patterns in face of danger. On the other hand, women's social conditioning may make them so risk-averse that this becomes a risk in itself as they remain in their homes despite rising water levels, waiting for a male authority figure to arrive to grant them permission and/or assist them in leaving. Such behaviour will affect middle income women who are 'housewives' as much, if not more so, than low-income women workers. She writes further, that, 'there were no reliable data to suggest that women more than men suffered physical damage or injury from hurricane Mitch, nor that more men than women were killed' (2010:3/5).

The assertion that women are 14 times more likely to die in natural calamities also has an uncertain history. It has been cited in innumerable texts, among them in a U.S. Congress resolution. Several authors cite these numbers as a statement of fact without referencing it while most others refer to an IUCN/WEDO document from 2004. When I wrote to IUCN to ask for the original research for this assertion, I was referred to a report by another author as being the correct source for this statement. On contacting the author, it appeared that the statement was made at a presentation at a natural hazards workshop that took place sometime between 1994 and 1996, with the author subsequently including it in a report. This statement has since then been picked up and presented as a fact in several documents on natural disasters.¹

3.3. *Women as pro-environmental*

The third argument concerns women tending to be more environmentally conscious than their male counterparts. The assumption is especially evident in the research on gender and climate change from Europe, though it has its roots in the gender and development debates as well as some eco-feminist literature. This argument about women's virtuousness tends to make

assumptions about women's needs and interests. Although much of the research in Europe is based on quantitative surveys on transport preferences and consumption, the arguments ignore differences between women and tend to club their motivations, perspectives and actions into a homogenous whole. According to Reed, considerable feminist research on women and environmental activism has generated a dualism wherein some women's activism is considered progressive and pro-environmental, while other activism is considered materialistic and virtually ignored. Consequently, she notes that there is a tendency to predetermine women as economically and/or socially marginal...to overdetermine women's identities as pro-environmental and exclude their other identities from consideration. In her research in northern Vancouver, she studies some of these 'other' women, the ones who do not normally find space in the literature on women and environment. These women were vociferous supporters of conventional forestry and certainly could not be categorised as pro-environmental. Reed emphasises the importance of examining the embeddedness of women's responses and shows that women's identities and agendas are shaped by their circumstances. They do not always 'play' their subjectivities and choice of activism but may also be 'dealt' them within the confines of households, workplaces, communities, policy debates (such as environmentalism) and research agendas (2000:365–6/382).

According to Leach, ideas about women's closeness to nature or their virtuousness in taking care of it were picked up by policy because they served strategic interests in the 1980s. She writes that when translated into development practice, these women-environment links tended to come to mean two things; acknowledging women's environmental roles so that they could be brought into broader project activities such as tree planting, soil conservation and so on, mobilizing the extra resources of women's labour, skill and knowledge; or justifying environmental interventions which targeted women exclusively, usually through women's groups. 'Success' in the projects was secured at the expense of women while new environmental chores were added to their already long list of caring roles. In addition, it obscured the interests of women not represented in the women's groups or targeted by the projects and further ignored issues concerning property and power. Fundamentally, Leach argues that programmes ran the risk of giving women responsibility for 'saving the environment' without addressing whether they actually had the resources or capacity to do so (2007:72).

Arguments about women's inherent vulnerability or virtuousness are in large part driven by the desire to put women and unequal gender relations on the map in relation to discussions on climate change. After a period of attention to gender issues in the 1970s and 1980s, the 1990s were characterised by a focus on poverty, and gender did not figure much in these debates. Similarly, there are hardly any references to gender in the increasingly expert oriented and technical literature on climate change. The policy literature reflects the same trend. In that context it would be reasonable to assume that some gender activists and researchers tend to overemphasise the poverty of women as a way of getting them onto the agenda. According to Röhr, this is what politicians respond to, "The notion that women are most vulnerable victims of climate change and its impacts is what makes many negotiators receptive to women and gender aspects" (2009:59).

My intention here is not to thwart the aim of highlighting questions of women's vulnerability or virtuousness that are valid arguments in many contexts. The ways in which feminists push for policy change has a lot to do with the pressures they experience in their encounters with development and policy: pressures to simplify, sloganise and create narratives with the 'power to move'

¹ I would like to thank Asli Tepecik Dis for her assistance in tracking down the origins of this quote.

come to depend on gender myths and give rise to feminist fables (Cornwall et al., 2007:12–13). But, if evidence is vague and inconsistent, it is also easily ignored or even ridiculed. When policy makers do believe in women's vulnerability, do policy prescriptions or programmes based on women's vulnerability translate into the lived realities of the women they talk about? In the following section, I examine the dangers of presenting arguments on unsubstantiated research, the importance of context and embeddedness in the analysis as well as the unintentional reproduction of dichotomies, whether it is about men and women or South and North.

4. Gender and climate change

The literature about climate change and gender has so far been written mainly to lobby for a gender perspective within international politics. It has been marred by a lack of data and evidence. Arguments about women's poverty and mortality are used to back up claims about the unequal effects of climate change on men and women. Arguments are built on dubious statistical claims which are taken as building blocks for future research or quoted as facts. Many reports and papers frequently do not cite their sources or tend to cite each other. As a result of this, the credibility of gender research is undermined and met with scepticism within the larger research community.

Vulnerable or virtuous women in relation to the environment present a static conception of women's roles. Women tend to get represented as a homogenous group, suffering because of their marginal social position *vis a vis* men. As the cites from the policy documents on the first page make obvious, the major problem is considered to be that women are vulnerable, more susceptible to climate change and that this is mainly a problem in the developing world. Addressing power imbalances are not necessarily on the agenda. This insistence on women's universal vulnerability (at least as far as the developing world is concerned) can have an opposite effect, that is, gender is made invisible in the debates on climate change since it is assumed that we know what the problem is – the vulnerability of women. It also denies them agency while constructing women's vulnerability as their specific problem. In doing so, it reinforces differences between women and men as given and unchangeable, as for example in the generalization that poor women are always more vulnerable and more likely to die in catastrophes while the major polluters are men. Women are vulnerable in a multitude of situations. However generalizing about it tells us little about the configuration of social relations of power in particular contexts or how the vulnerability is produced for other groups such as certain groups of men. Powerlessness can leave men vulnerable to climate change, albeit in different ways. The spate of farmer suicides in India in recent years, mainly men, shows the stresses that men face in times of food insecurity where they are meant to provide for the family. Generalizations make it impossible to meet the highly specific needs of particular groups of women or men and to take advantage of the potential for climate change mitigation in different contexts.

Research has shown that the transfer of resources to women which comes about as a result of the focus on women as poor and vulnerable do not necessarily benefit specifically women. One of the main policy responses to date – which has been to feminise anti-poverty programmes – seem to have contributed to the problem they are supposedly attempting to solve, that is, to push more of the burden of dealing with poverty onto the shoulders of women (Chant, 2010). It is the terms and forms of participation in programmes and other policy prescriptions that are important. Citing reconstruction efforts after hurricane Mitch, Bradshaw writes that while assumptions about women household heads' relative poverty may have informed the distribution of resources,

lack of understanding of what informs their gendered experience of poverty meant the resources provided did not tackle the causes of that poverty. While over half the women in the study felt it was women who were participating most in reconstruction, only one-quarter felt women benefited most and few saw any personal benefits, practical or strategic, from their involvement (2010:6). In effect, Bradshaw and several other scholars make the argument that although policy and resources are directed at women they often have an unintended negative impact where greater responsibility for overall poverty is put on women. Poverty reduction measures become a 'feminisation of responsibility.' As Chant puts it, a more apposite way of describing the situation might be 'directing resources through women' (2010:2).

The transfers of funds often involve the miraculous change of women from 'victims into heroines' as they become assigned the role of getting rid of poverty (Davids and van Driel, 2010:221). This transformation from the victim to heroine rings a familiar bell in relation to the North–South discussions on gender and climate change. It reflects not only attempts to put gender and women on the map but also reveals North–South biases while reinforcing them. The corollary to the vulnerable woman in the South is the virtuous woman of the North, environmentally conscious and environmental trailblazer. Due to the relative lack of tangible material poverty, gender is not considered as important or relevant in the Swedish environmental context. This is evident in the Swedish Bill on climate and energy policy that regards gender and social inequalities as a problem in developing countries. The Swedish Defence Agency's assertion that this inequality in developing countries can aggravate problems in other countries and have indirect effects in Sweden is another reflection of this thinking.² It is further reinforced by the constant and often unsubstantiated reports on the vulnerability of third world women. It appears that in such thinking there is a need to picture undeveloped and poor third world men and oppressed women to assuage doubts about inequalities in the developed world and the need for strong action in these countries (Arora-Jonsson, forthcoming).

Justifiably, in many countries in the South, natural resources are a question of livelihoods in a more direct way. But the distance of the resource from a direct source of livelihoods should not blind us to the fact that gender in environmental matters is as important in for example Sweden as it is in India. In research carried out with women's groups in India and in Sweden, the importance of gender-equality and of the relation of third world women to the environment was self evident to development workers, researchers and others. 'Development' and a certain standard of welfare made these issues appear to be less urgent in a wealthier country like Sweden. However, research showed otherwise; first, that questions of gender and power in environmental management are extremely relevant in a poorer country like India but also very much so in a richer country like Sweden. In the latter, power relations can take forms that make gendered discrimination more difficult to contest. Second, development discourses about equality and empowerment of oppressed third world women bear not only on how gender equality is conceptualised and practiced in the South but also shape the space for gender equality in the North.

The rhetoric and discourse of being far ahead in terms of gender equality (in comparison to the rest of the world) that was ubiquitous in policy but also in everyday village life in Sweden came in the way of women organizing in a women's group. The idea of a women's group was considered to be irrelevant in a gender equal/neutral society. In India, on the other hand, the discourse of gender discrimination was used by some of women to temporarily garner resources and to build a women's collective

² It could provide yet another reason for tightening national borders.

that could challenge mainstream institutions for environmental management.³ Understanding these incongruities brings into question the category of development both in a Southern but especially so in a Northern context where the North and especially Sweden is taken as referent for questions of development and gender equality (Arora-Jonsson, 2009:213–214).

According to Jackson, it is easier to make gender an issue of poverty than to view gender disadvantage as crossing boundaries of class and ethnicity. Moreover, it is much simpler than directing attention to the gendered character of governments or development agencies themselves (1996:501). This is apparent in a recent report that compares men's and women's responses to climate variability in conditions of draught in villages in Andhra Pradesh in India. There were differences between men and women depending on roles and activities but those varied in different contexts. Most striking in the report is the gendered difference in relation to institutional bodies and government support. Women were shown to be consistently disadvantaged on several fronts such as extension services, being paid less than men for their work in the National Rural Employment Guarantee projects, information being directed mainly at men with larger farms or more services available to men than women. In other words, the main disadvantage for women appeared to be in relation to institutional support which had major implications for building resilience to long-term climate change (Lambrou and Nelson, 2010). Further, vulnerability for farmers is not only climate related but is very much a condition and response to wider markets and economic instruments that need to be examined (O'Brien et al., 2004). Such institutional disadvantages for different groups of men and women and the unequal connections need to be at the centre of our inquiries.

5. Contextualising vulnerability and virtue

The relegation of gender mainly to vulnerability and partly to virtuousness detracts attention from the problem that afflicts both the North and the South, and that is gender and power inequalities in decision-making in environmental management. Not unsurprisingly, in discourses around climate change that have hardly any attention to gender, the few mentions that policymakers have chosen to take up are about vulnerability or virtuousness. That helps to put the problem out there, mainly with poor and geographically distant vulnerable woman. The crux of the matter that marginalization or vulnerability is due to inequalities in power is ignored.

Scholars have shown that efficiency of environmental management increases with the involvement of women, from recycling plants in Europe (Buckingham, 2010) to community forestry committees in Nepal (Agarwal, 2010). Feminists and others have argued for more women in environmental decision-making, both for reasons of efficiency and equality. However, the inclusion of women and other marginalized groups can be double-edged. The inclusion of women in forestry organizations in India and Sweden was a way of maintaining the status quo rather than questioning inequalities. The women who were to be included were expected to abide by rules and laws over which they felt that they did not have much say. They preferred to participate through their own groups in which they felt stronger and more confident. This was rejected by male-dominated village/forest organizations who regarded the women's agency and the forming of their groups as a challenge to their organizations (Arora-Jonsson, 2010). A gender analysis thus involves understanding, *how* unequal practices are perpetuated in environmental

decision-making or as in the case from Ghana, understanding the mechanisms that make it possible for men in the households to shape women's decision-making in their interests. As Carr writes, it is imperative to understand the persistence of current, unjust adaptations that persist in local settings (2008). In Ghana, one could speculate that the acceptance of the unjust adaptation on the part of the women was an exercise in self-preservation in the given circumstances. By not owning and cultivating extra land they may have tried to maintain a measure of control over their labour and time that they would otherwise have had to put at the disposal of the household. It was clear from the studies that men had a great deal of authority over women's incomes and in times of stress it was women who spent their incomes on the household while men could withhold incomes. Taken for granted assumptions about women's vulnerability detracts attention from what women are already doing in relation to environmental management or intra-household decision-making.

The examples from Sweden and India earlier demonstrate that the entry of women into existing institutions did not change unequal relations. Institutional change and flexibility in institutional forms is needed so that groups can participate in decision-making. Otherwise, insistence on women's inclusion in existing institutions might just rubber stamp prevalent inequalities (Arora-Jonsson, 2010). Neither does channelling funds to women necessarily change unjust paradigms of environmental management or adaptation. What would flexible and equitable climate change policies and programmes look like? Scholars have argued for polycentric approaches to policy making (Ostrom, 2010)⁴ and for democratising policy (Charlesworth and Okereke, 2010). "Democratisation of policy could mean that decisions take more time, although lack of action to address climate change over the last 20 years suggests that economic methods are little better at achieving action" (Ibid:127). Providing for diversity within international policies and programmes is difficult and costly. On the other hand programme failure is also costly.⁵ The inevitable consequence might be the writing off of gender equality measures when development workers meet the messy realities and incomprehensible choices taken by men and women. Democratic policy-making presupposes that open and reasoned debate is possible. Recent climate debates show how the new media can enable participation but also allow vested interests to destabilize environmental debates and generate confusion and mistrust (Berkhout, 2010).

We need to know how and in what contexts women find themselves to be able to deal reliably with the unequal effects of climate change. Gender is important but needs to be seen in its particular context. For example, on the question of energy, Skutsch writes, "Basically it is very difficult to make a strong case for a real gender difference, not least because income factors may have a much more important and confounding influence on energy use than gender" (2002:33). Gender is thus so much more than poverty and women are not a homogenous category. Women can be rich or poor, urban or rural, from different ethnicities, nationalities, households and families all of which produce specific results. A poor man in India is unlikely to be as polluting as a woman in Sweden or for that matter as much a polluter as a rich woman in India.

It is clear that more context specific case studies are needed to understand the linkages of gender and climate change – comparative case studies that examine not only relationships and adaptations on the ground but also ask new questions from

³ In this particular case resources to finance income generation activities and micro-credit (for poverty alleviation) were used by the women in some villages for other purposes such as strengthening their self help groups and in many instances challenging gender discrimination. However, since this was outside the purview of the original micro credit programme, it eventually became impossible for the donors to continue supporting the groups (Arora-Jonsson, 2009).

⁴ The thesis of polycentric approaches to address environmental changes is based on extensive empirical work and has the potential to facilitate benefits at multiple scales. The examples presented in the article with regard to climate change however have not proven to be democratic or successful as yet.

⁵ Thanks to one of the reviewers for pointing this out.

different vantage points. Examining environmental management from the vantage point of women's groups rather than the existing institutions offered radically new insights (e.g. Arora-Jonsson, 2009). Attention to rural–urban linkages in the examination of an agricultural context, suggested adaptation possibilities outside of the agricultural framework (Eriksen and O'Brien, 2007). We need to direct our attention to connections to the larger political economy and use of discourses that exacerbate and cause vulnerability and inequalities (O'Brien et al., 2004; Arora-Jonsson, 2009). What are the mechanisms that make women make choices that are so obviously discriminatory? What are the alternatives? What would different groups of women or men themselves want? Importantly, we need to study the role of the gendered institutions that men and women have to relate to. Many progressive gender equality policies have foundered on the rocks of gender biased patterns in public decision making or a resistant bureaucracy where profound gender biases are embedded in the justice and public administration systems (Goetz, 2009:5). Attention also needs to be directed to recognizing and understanding the new institutions that have grown up around the paradigm of global environmental change (c.f. Hulme, 2010), to further understand in what way they may reinforce or challenge gender inequalities and how sensitive they are to geographical sensibility.

Marginality needs to be viewed through the power relations that produce the vulnerability in the first place. Different power relations are privileged in different situations and class, gender, ethnicity or nationality assume importance depending on the context. The specificity of vulnerability may differ. A generalized belief in women's vulnerability silences contextual differences. Gender gets treated not as a set of complex and intersecting power relations but as a binary phenomena carrying certain disadvantages for women and women alone. The local forms of climate change need to be understood not only as effects but men and women's actions also as constitutive ingredients of climate changes. We need to be able to see women like men being responsible for as well capable agents in mitigating climate change without losing track of power relations involved, without having to categorise women as vulnerable or virtuous.

A feminist response to global climate change must not only challenge masculine technical and expert knowledge about climate change but also the tendency to reinforce gendered polarities as well as North–South divides that tend to slot women, as vulnerable or virtuous. Unequal gender relations do not cause or aggravate climate change. But gender relations do determine how the environment is managed. Arguments about women's vulnerability in the South and their virtuousness in the North are an effort to keep women and gender on the climate change map from where their presence is all too easily erased. However, it also works to maintain the status-quo and can inhibit substantive change. It is dangerous to attribute responsibility by gender (c.f. Skutsch, 2002:34). It is easy to discredit such assumptions and more importantly we ignore the interrelated factors and axes of power that would help us understand *how* best to deal with the problems of climate change and its unequal effects.

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