

# Adaptation to Climate Change

Gendered processes, power and places in the National  
Adaptation Programmes of Action

Tanja Andersson

# Abstract

Global changes in weather patterns and environmental processes are bringing the climate change discourse from the abstract to the concrete. Through the United Nations Framework Climate Change Convention, the global community has highlighted three key areas of urgent action. These are *vulnerability, adaptation and mitigation*. This thesis focuses on the area of adaptation, framing it within the contexts of gender and justice. The analysis is drawing on sources mainly from critical ecofeminism together with sources of gender and development and aspects of justice to consider the impact and aspects of processes, power and place within the climate change discourse. Through a critical reading of the National Adaptation Programmes of Action, an instrument for vulnerability and adaptation needs assessment of the Least Developed Countries, it is argued that gender issues, and especially women's positions, must be more explicitly illuminated and put in the context of power asymmetries and of the feminization processes of poverty and survival. In this course of action, notions of the relationship between women and the environment must be critically and carefully applied.

*Nyckelord:* adaptation, climate change, ecofeminism, gender, justice  
*Antal tecken:* 69 869

# Acronyms and Abbreviations

CBD	Convention on Biological Diversity
CEDAW	Convention on the Elimination of Discrimination against Women
ICCP	International Climate Change Panel
NAPA	National Adaptation Programme of Action
NAP	National Policy to
UNDP	United Nations Development Program
UNEP	United Nations Environmental Program
PRSP	Poverty Reduction Strategy Papers
PRS	Poverty reduction Strategy
SAP	Structural Adaptation Program
MEA	Multinational Environmental Agreements
MDG	Millennium Development Goals
LDC	Least Developed Countries
GDP	Gross Domestic Product
GEF	Global Environmental Facility
COP	Conference of Parties
UNCCD	United Nations Convention to Combat Desertification
WSSD	World Summit on Sustainable Development
GLOF	Glacier Lake Outburst Floods
LDCF	Least Developed Countries Fund
KP	Kyoto Protocol
UNFCCC	United Nations Framework Convention on Climate Change
WMO	World Meteorological Organization

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# 1 Background

The research community is no longer arguing about whether climate change is happening or not. The questions yet to be argued about is its extent and impact. Due to anthropogenic climate change caused by excessive emissions of greenhouse gases, earth's surface temperature is estimated to rise between 0,6° and 4,8° degrees Celsius within this century. This will not only affect biomass production and sea temperature but also cause melting glaciers, droughts, rising sea levels, unpredictable and extreme weather conditions and redistribution of precipitation and cloudiness. This will have profound effects on ecosystems and human livelihoods (IPCC 2001).

In response to this, the World Meteorological Organization (WMO) and the UN Environmental Program (UNEP) established the Intergovernmental Panel on Climate Change (IPCC) in 1988 “to assess scientific, technical and socio-economic information relevant for the understanding of climate change, its potential impacts and options for adaptation and mitigation”. The IPCC together with a series of Multilateral Environmental Agreements (MEAs) most notably the United Nations Framework Convention on Climate Change (UNFCCC) which came into force in 1992, has the leading position within the debate. Followed by the first legally binding agreement to cut greenhouse gases, the Kyoto Protocol, the issue of climate change may be perceived as a part of the larger environmental regime but is also a regime in its own right. More recently regional and local frameworks and policies within this regime are in process, most notably the National Adaptation Programmes of Action under the UNFCCC and the work of the Conference of Parties (COP). Three key strategies within the UN framework: *vulnerability, adaptation and mitigation* has developed. The NAPA is the main tool of adaptation assessments and implementation.

An equitable response to climate change must include a gender sensitive analysis. The absence of such an analysis has attracted the attention of many feminist scholars and advocates. A political goal of the UN body is the crosscutting of gender in all its work. Still, in spite of persisting inequalities in gender, class, ethnicity, sexuality and other systems of power asymmetries, these intersections are largely missing as analytical categories in the current climate change discourse. Gender is important to consider since women often are more dependent on natural resources, responsible for household tasks including collecting water and fuel and not the least because of more structural developments like the feminisation of poverty. Mitigating technologies are often gender biased and may affect women negatively. Moreover, in most places women are not equally included, if included at all, in decision-making and ownership. Gender equality is one out of ten steering guidelines that are supposed to form the NAPAs but extensively, a concrete analysis is absent.

## 2 Purpose and outline of the thesis

As the title reads, this chapter concretises the thesis' ambitions and practical prerequisites.

### 2.1 Purpose

The environmental strains the global society is expected to face will affect people differently, geographically and socially. In a world where gender inequality still persists, where men and women's work is valued differently and where their livelihood possibilities differ, the effects of climate change will impose various meanings and different changes to people. This will be negotiated not only by their gender but also according to class, ethnicity and location. To assess these differences and also to learn from various social and spatial contexts is important in developing adaptation strategies. A framework attending the issues of justice, partly including gender equity is currently developing. One of its main instruments is the National Adaptation Programmes of Action (NAPA). The purpose of this thesis is to evaluate this potential and to use this framework for a more explicit engendering of the discourse.

The most central purpose is that of illuminating gendered impacts and marginalizations in the climate change discourse. A second purpose is to relate climate justice in adaptation to the issue of gender. The third purpose is mirroring the first in using the framework as a background to a critical reading of the practical strategies so to frame the discourse in the concrete. An overall theme is: Adopting a women's standpoint, to what extent are marginalized women's interests and capabilities reflected in these NAPAs? My purpose is not to normatively grade these programmes as good or bad but to contribute to the living and dynamic process of knowledge.

### 2.2 Delimitations

A major limitation is to write from the 'geographical ghetto' of the white west. Even though I have spent many years living as a white women of colour in Asia,

the accounts of marginalization experienced has never affected my possibilities to hide behind the constructed hegemony of western culture and economic refuge. This thesis should also be looked upon as a stepping-stone for further interrogations in the very localities where vulnerability to climate change has its biggest impact. Adopting an intersectionality perspective, the analysis is indeed incomplete by not paying enough attention to issues of sexuality. Due to the limited format of this text I would recommend those specifically interested in a queer analysis of gender and environment to read *New Perspectives on Environmental Justice – Gender, Sexuality and Activism*, edited by Rachel Stein (see the References list). It should be emphasized that I look upon this discussion as an assessment for further analysis within the context of knowledge as a process. The ambition has been to frame collective issues that are to be further disaggregated in time and space.

## 2.2 Disposition

The following chapter provide a discussion of the methodological basis for the analysis, discussing my understanding of knowledge, gender as an analytical tool and the line of thought in the critical reading of the material. In chapter four I present a theoretical frame on gender, women and the environment, their relationships, importance and implications. Theories and their importance may be perceived in many ways, as frameworks, perspectives or as lenses. Here I will use the framework terminology but I do not consider this as something one-dimensional, rigid or fixed. An analysis needs structure but theories open multiple interpretation possibilities and however not used here, often the conception of theories as lenses is more appropriate. The empirical part of this paper (Ch 5) starts with presenting the framework of the global climate change regime and instruments of adaptation followed by discussing the concepts of adaptation and justice in adaptation to climate change. Chapter six is dedicated to a critical assessment of these strategies aiming to illuminate the gendered aspects and women's position through reviewing the National Adaptation Programmes of Action (NAPAs). In the end there will be a final conclusion (Ch 7).

## 3 Method and sources

To reach transparency in research it is fundamental to clarify the departure points as well as the line of thought and analysis. In the following, knowledge as a process and its relation to the material is discussed followed by a presentation of critical reading and interpretations of standpoint as methodological tools. A reflection on the material is closing the chapter

### 3.1 Knowledge as process

What is knowledge? How is it created? The positivist view of knowledge places emphasis on objective observations of ‘facts’ and its relations to other ‘facts’. Only those observations that do not differ between observers may be perceived as true representations of reality (Tanesini 1999: 162-163). Knowledge is in this account something to be found or discovered. Post positivist discourses on knowledge has challenged both the role of the subject in relation to the observed and to the scope of interpretation. The classical “view from nowhere” is thus problematic, which many feminist theorists of science rightly have demonstrated (e.g. Haraway 1991). Rather than dependent on a static, ‘objective’ reality, knowledge is best perceived as a practice. From this follows that knowledge may be individual and communal and that it is mutually constituted of theory and practice respectively. Knowledge without context is unthinkable. One alternative definition of knowledge is that of Lorraine Code:

”an intersubjective product constructed within communal practices of acknowledgment, correction and critique” (cited in Hawkesworth 2006: 19)

As Hawkesworth notices does this procedural interpretation of knowledge allow participation of the many and a process that is open-ended. At the same time does it admit that we have to take the specific ways of social, cultural and historical practices to reach knowledge into consideration when evaluating its validity? This definition also demands a reevaluated position of the researcher with increasing demands on transparency and presentation.

## 3.2 Women as a critical standpoint?

With the purpose of elucidating gendered accounts of human survival, different ways can be chosen. One way is to broadly discuss all genders and their implications another is to choose one aspect or gendered representation. The focus on women in this thesis has implications for choice of material, use of theories and the conclusion of the analysis. Dealing mainly with the material aspects of human interactions with the environment it is most useful to approach gender as it is most commonly represented in everyday life and in those practices where the interaction with the environment is mostly exercised. Femininity is always marginalized in relation to masculinity, regardless of sexuality and biological sex. Therefore, in the light of those unequal power relations between men and women and its meaning for societal organization, focusing on *women* as has an emancipatory purpose. Focusing on women as a heterogeneous group can be compared with standpoint methodology.

Standpoint theory stems from Marx' "proletarian standpoint". This stresses that it is what we do, as human activity, or the prerequisites of material life that structures and limits our human understanding. Knowledge is socially situated and peoples positions and characteristics are resources for research. In feminist methodology this standpoint can imply the characteristics of women's lives (e.g. Harding 1991: 119). The political ambition of emancipation is to be compared with Hawkesworth's suggestion that standpoint analysis

"make visible social and political values in need of critical assessment"

"Furthermore, in spite of not being a substitute for politics, theoretical analysis can create awareness of political arguments"

(Hawkesworth 2006: 202-203, 205).

This account of a standpoint methodology emphasizes its value as a *tool*, which is also how it is used here in relation to gendered livelihoods and position in adaptation policies. At the same time standpoint *theory* lacks an analysis of other stratifications. Chapter four in particular is dedicated to expanding this tool (or method) with other feminist perspectives and theories building a framework for a critical gender analysis.

### 3.3 A critical reading

Starting from various social, cultural, economical and geographical standpoints, humans are the actors of social practices. Where power is unevenly distributed, this positioning creates various meanings of those practices for different actors. This is a part of the ‘livelihood analysis approach’ of this thesis. The analytical thread is the understanding of *process* as a fundamental concept, in method, in theory and in the empirical material together with an acknowledgement of the multifaceted and gendered conditions for survival.

The origin of feminist perspectives is a critical scrutiny of the uneven distribution and reproduction of power. It also builds on different norms and interpretations of equity, justice and fairness. In climate change adaptation discourse and in formulating concrete strategies, a major issue is that of justice. Therefore, formulating a framework, understanding the relationship of gender and the environment and relating this to a conceptualisation of climate justice will background a critical reading of the gender disaggregated impacts and provisions for fairness.

Ultimately, and normatively, feminist and gender analyses are about justice. Adger et al (2006:267 f) argue: “distributive justice is unlikely to be able to provide a sufficient foundation for climate justice because of the heterogeneity of involved parties”. To underpin the legitimacy of the climate change regime procedural justice is needed, he continues. They propose three questions that must be answered:

1. Which parties and whose interests are recognized, and how, in planning, decision-making, and governance of adaptation?
2. Which parties can participate in planning, decision-making, and governance of adaptation, and how?
3. What is the effective distribution of power in planning, decision-making, and governance of adaptation?

I have drawn upon these questions to develop a gendered critical reading. A critical approach asks if we can accept the practical implications of these norms in the given context/problem/discourse. Drawing on feminist analysis, *process*, *power* and *place* stands like pillars in the discussion, and a survival and capabilities approach to livelihoods are favoured. Furthermore structural limitations for gender equity are framed in time and in ‘glocality’. This gives us the three following departures for inquiry:

1. Where are women positioned in the *processes* of adaptation to climate change and what is the gendered feedback?
2. How is gender related to material resources, capabilities and distributions and how does this affect the production of *power*?

3. How can we relate these issues to *place* when spatial relationships are changing together with the degradation of spatial means of survival?

Using NAPAs as a source for assessment and discussion I will not only focus on actual provisions and the inclusion of gender in concrete suggestions but, more importantly, assess what is *not* provided for? What is there to be added in prospective reformulated policy versions, or in the prospective development of a supervision subsidiary body?

It is important to keep in mind that the informative value and substance of NAPAs are highly dependent on social, cultural and geographical contexts. In this particular assessment I have notwithstanding chosen to focus on the 'commonalities in diversity'. Masculinity as the norm in most human societies and the *feminization of survival* in meeting the impact of climate change means that gendered meanings of practical problems will, while not overlapping, always touch.

## 3.4 Sources

Many sources have been evaluated that has informed my understanding of the area of interest although this is not directly referred to in the text. However, all contributions are listed in the references. An evaluation of published research and of written material can never be *the* way to reveal information about real lives and livelihoods. Still it is *one* useful way to deconstruct, organize and reconstruct knowledge.

### 3.4.1 Secondary sources

The ambition has been to focus on recently published material. Adaptation to climate change is a fairly new area of interest and both definitions and framings have not yet reached academic consensus. As for framing a gender and feminist theoretical discussion, material from various directions and of various periods have been used, the lack of consensus is of course evident even here. Feminist theory is a vast body of knowledge in continuous process from which I have tried to withdraw the concepts and the information needed without becoming too expansive. The empirical material consists of official documents and research published within the UN, complemented with academic literature on gender, environment and development.

### 3.4.2 The National Adaptation Programmes of Action (NAPAs)

The NAPAs were agreed upon at the Conference of Parties (COP) in Marrakech in 2001 (COP 7). The objective of NAPAs is to “serve as simplified and direct channels of communication for information relating to the urgent and immediate adaptation needs of the LDCs” (28/CP.7). The NAPA guidelines stress the low adaptive capacity of the LDCs as the rationale for developing these programmes and propose it as a means for spreading information rather than an end in itself. The NAPA process is bound to be different in different countries due to institutional cultures, institutional strength and geographical accessibility and population size and distribution. Selection criteria for adaptation measures are to be country-driven but the guidelines states that these should include (a) Level or degree of adverse effects of climate change; (b) Poverty reduction; (c) Synergy with other Multilateral Environmental Agreements (MEAs) and (d) Cost-effectiveness. In the global climate change regime the NAPAs provide the most specific provisions for justice on the national level. According to the guidelines, preparation of NAPAs will be guided by (a) A participatory process involving stakeholders, particularly local communities; (d) Sustainable development; (e) Gender equality and (j) Flexibility of procedures based on individual country circumstances (for a complete list see appendix). The Global Environmental Facility (GEF) is providing the main funding. Provisions for participation and gender equality are important steps towards a justice approach, but still this does not assure that any substantial justice is provided for at the other end of the process. Seeing NAPAs as ‘living papers’ makes them suitable as a source for critical evaluation and an engendering of the discourse.

At the time of writing, only nine NAPAs have been published (Bangladesh, Bhutan, Comores, Djibouti, Malawi, Mauritania, Madagascar, Niger and Samoa) with 40 still in planning or in progress. Of these only seven were available in English. All seven have been assessed. The COP has developed guidelines for the formulation of the NAPAs. However, individual countries have the freedom to adjust this to their capabilities and needs. Therefore the principle of gender equity is handled differently and to different extent in each NAPA. Also, in the case of the NAPA of Samoa the procedure of project prioritisation have not followed the common Multi Criteria Analysis (MCA) weighting criteria within expert groups but has followed the indigenous *faa Samoa* (the Samoan way) making consensual decisions.<sup>1</sup>

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<sup>1</sup> See the UNEP/IVM Handbook and the NAPA Guidelines (FCCC/CP2001/13/Add.4) for further information.

# 4 Gender

This chapter concretises the basics for a gendered approach to adaptation. Having framed the topic of gender, women and intersections of suppressions the concept of feminization of survival is presented. This is followed by critically assessing theories of women and environment to position the subject of climate change in a gendered context.

## 4.1 Gender, women and the intersections of oppression

Feminist theory and gender analysis is a vast and heterogeneous body of research and practice. Some approaches suggest gender sameness as the analytic starting point while others argue for difference. Most of the policy discourse is centred on the liberal feminist agenda of integration and participation, which builds on a sameness approach and whose principles of equity I, in opposition to many of those ecofeminists whose contributions I adopt below, see as a self-evident aspiration. In my opinion, linking the liberal equity and participatory approach to an acknowledgement of diversity is not contra productive but the opposite. The UN framework has mainly developed from participatory and egalitarian interpretations of justice and gender equality. Therefore we will not elaborate on the foundations of liberal feminism here, but concentrate on more substantial and underlying accounts of the nexus of gender, environment, power and place.

It has been argued that feminism and gender analysis are two distinct and separate approaches, each focusing on patriarchy and gender relations respectively, which is not to be confused (Jackson 1994:113-115). In favour of the latter the argument is that a gender analysis better explains how the generalized power of men over women came into being, is reproducing itself, its variations and tells us about the gender struggles that creates it while it does not criticize male Western rationality (ibid). This must, at least from a postcolonial perspective, be considered a major fallacy. Distinct approaches or not, structured around the higher value of (Western) masculinity, this persists as the *raison d'être*.

Although in brief, writing as a western white woman in one of many “geographical ghettos” (for an account of this expression, see Saunders 2002:XX), more notably an academic institution in ‘the North’, it is necessary to

problematize writing about women in ‘developing’ countries, in ‘the South’ or, as I would prefer to put it, in marginalized places, regardless of latitudes. Chandra Mohanty (2003) is arguing that the category of “Third World Women” as submissive and oppressed has been constructed by western feminism. By universalising and simplifying complex social relationships and by making historical changes invisible, western feminists have been able to consolidate a necessary perception of the self (Mohanty 2003: 21, Mulinari et al 2003: 26). Mohanty makes a distinction between women as a historical subject and woman as a representation in hegemonic discourse. The relation between these is set up by different cultures. Furthermore she is criticising the category “women” as a coherent group, regardless of class, ethnicity and racial location and of science producing uncritical “proof” of universality. While problematizing the conception of “Third World Women”, writings about women’s experience in the “Third World” are essential; she carries on, but must be considered in context of the global hegemony of western scholarship. Instead of assuming an ahistorical universal unity between women based on generalized notions of victimization and subordination it is better to “analytically demonstrate production of women as a social, economical and political group within particular local contexts” where class and ethnicity is not bypassed (Mohanty 2003:19-29).

Mainly discussing material aspects of livelihoods an analysis of gendered accounts of identity has had to be left to later considerations. This follows Chandra Mohanty’s reasoning where she makes a distinction between *woman* as a discursive representation and *women* as material reality (2003:36, original emphasis). To work with a feminist standpoint is not to be confused with an ambition to explain the meaning of *woman*.

The importance of addressing women as *a social, economical and political group within particular local contexts where class and ethnicity is not bypassed* is obvious. One approach to understanding the combinations of oppressions is the principle of intersectionality. It is from this position, especially in the framing of race, ethnicity, class and sexuality as processes rather than innate qualities, accounts of social and critical feminism and gender analyses are drawn into the framework. I can only agree with de los Reyes and Mulinari (2005) in that there is a need for intersectionality perspectives that may be anchored in material living conditions and social processes while highlighting the impact of the production of ideologies on power relations. From this follows that the relevancy of categories like gender, sexuality and class must be contextualised, their internal relationships must be articulated and their meaning must be historicized in time and space (p.125). Although intersectionality and postcolonial approaches respectively have been strongly attributed to analyses of identity processes I will apply these to the material and practical aspects of climate change adaptation. In the initial delimitations I have already argued for leaving out the intersection of sexuality, in favour of the concept of place.

My approach may at a first glance come across as a counteract to the above. I want to clarify that I see looking for the commonalities of diversity as a pragmatic way to collaborate, expand and review sources of knowledge.

Intersectionality can be read as elucidating and problematizing those links constitutive of the exercise of power and the retention of inequalities (2005: 24) and used as a tool to analyse the complexity of oppression (Hawkesworth 2006: 208). It is in this sense I see it as compatible with this thesis reading of ecofeminism.

## 4.2 The feminization of survival

Saskia Sassen (2002) uses the concept of *feminization of survival*. This concept has the potential not only to include those everyday practices where women interact with nature in gendered ways, it can also encompass women's relationship to land, property and place and the importance of global capitalisms influence on a consumerism culture that is seeping into policies, structures and agency. Focusing on the formation of global markets, the intensifying of transnational and translocal networks and of communication technologies, she argues that alternative circuits, "counter geographies" mainly consisting of migrant workers and those trafficked are being feminized as households and communities are increasingly becoming dependent on women's labour, in the official or in the shadow economy (Saunders 2002:89-91).

Labour as the *primary* theoretical determinant of women's situation been criticized as creating a false unity of the discursive "woman" and a false sense of commonality of oppressions and interests. This situates third world women in particular outside social relations instead of starting the analysis in those structures constitutive of their lives (Mohanty 2003:39). Still writers like Mohanty labels it as more than a descriptive category that indicates the differential value placed on men and women's work differently. Mohanty also brings forward its explanatory potential *if* the local cultural and historical context is considered (2003:34-35, my emphasis). In discussing the global division of labour Mohanty also touches upon the value of work as a determinant when integrating the migratory populations in the north/west into the category of "Third World" people. Combined with the feminisation of poverty in Europe and the United States this aspect of global production patterns is seen as highly relevant (2003:46-47).

In this discussion I am borrowing the expression of *feminization of survival* to frame the asymmetrical vulnerabilities, hardships and access to capabilities that are reinforced through environmental degradation and changes in biospherical processes. Survival is not only about monetary systems but also about abilities, cooperation and an understanding of the interconnectedness of bodies, identities, cultures, natural resources and political power in its broadest sense.

### 4.3 A theoretical context of women and environment

Environmental degradation can increase both women's workload and their vulnerability. A gender analysis should take into account the increased burden of assuming that women have a central role in coping strategies. This is why it is dangerous to assume that women are naturally predisposed to be responsible for the impacts family or community livelihoods has on the environment (Masika 2002: 52). There are various approaches to the relationship between gender (in particular women) and nature. Socialist feminism places this in the division of labour, feminist environmental sociology in the status and transformation of gender relations, women's political ecology in an egalitarian harmony with the environment and ecofeminism in the embodiment in nature. In the following ecofeminism is used to highlight the possibilities and the constraints of gendered asymmetries in power relationships in relation to nature.

Ecofeminism grew out of the grassroot peace and anti-nuclear movement in the 1970s criticizing the patriarchal and androcentric understanding of the natural and the social world (Mellor 1997: 39). Later, ecofeminism has developed into an expansive web of thought and political action. The shared argument is the connectivity between nature and women and its objection to the perceived inferiority of both (p. 8, 36). However, while spiritual, cultural and affinity ecofeminisms emphasize an elementary and positively valuated closeness between women and nature social or socialist ecofeminism argue that the relationship between women and nature is socially constructed and a culturally and historically changeable product (e.g. Mary Mellor; Val Plumwood, Carolyn Merchant) (Littig 2001: 16). The two perspectives share the view on humans as embodied beings but for social/ist ecofeminists any gendered difference is not essential but achieved through practice (Mellor 1997: 60). To the extent ecofeminism is used here, a strong bias for a social/ist and critical interpretation is adopted.

Both social/ist and critical ecofeminism is writing from the perspective of embodiment. Ecofeminist Mary Mellor writes that humans have bodies embedded in the natural environment and is a part of the materiality of human existence. It is through our bodies we experience those ecological impacts that affect women disproportionately in ill health, early death, congenital damage and childhood development. There is no fundamental conflict between men and women but humanity is gendered in ways that subordinate, exploit and oppress women. To Mellor, the domination of men over women is the prototype for other forms of social domination and of the domination of nature (1997: 13). This is a highly contested point of view, especially from the perspective of intersectionality where oppressions are not hierarchical, but truly *intersecting*. Here, I would like to

suggest that the domination of men over women is a highly *visible* form of social domination and therefore it does have a very distinct analytical value. Mellor continues that women are playing a socially constructed mediation role between humanity but not only as women but also as people caught in a matrix of oppressions and that most people are exploiters and dominators in some contexts, and exploited and dominated in others (ibid).

Mellor writes that women's alignment with nature is achieved, a political choice that originates in patriarchy's rejection of both women and nature, which has created a socially constructed situation that leads to women's particular understanding and experience of nature (Mellor 1997: 2, 60-62). This is a view shared by Val Plumwood (1993). Rooted in social practice, in subsistence and reproduction, women are not automatically provided with an ecological consciousness. She has developed a "master model" that builds on a perception of an androcentric and unequal society where "both nature and women has been treated as providing the background to a dominant foreground sphere of recognized achievement and causation". Women are backgrounded in their traditional roles, especially as mothers. This process, *backgrounding*, lies behind the structure of society and behind the denial of dependence on biospheric processes (1993: 13, 21). Although it is not masculine reason that forms the dominating identity, the male is the dominant model for humanity, rationality and political life, excluding the feminine. Multiple and complex cultures of master identities are formed in the context of class, race and gender. Plumwood is critical of liberal feminism, which she criticises for advocating absorption of women into this master model of human culture. Liberal feminism, she continues, is making some women equal in a now *wider* dominating class without questioning the structure of domination. Orders of superiority and inferiority remain intact and the basis is not challenged (1993: 5, 22-28, original emphasis). Others agree in that middle class women are the most benefiting from the liberal feminist perspective (e.g. Harding 1998: 94).

Women's bodies are more affected by ecological destruction *and* through social stratification between men and women. One critique of ecofeminism is that although the beneficial purpose is to make women visible one problem with this approach is categorizing women as a collective subject of change. Most ecofeminisms do not open for considerations of differences between women or of women's share of pollution (Littig 2001: 16). As Mary Mellor rightly points out, many ecofeminists are at pain to explain their view on sex and gender as a part of a matrix of oppressions. Herself she chooses to see sex/gender as *one* starting point (Mellor 1997: 70, original emphasis) an approach shared by the author.

# 5 Adaptation in the Climate Change Regime

Even if greenhouse gas concentrations were to be stabilized, the climate will continue to change for a considerable time to come. Additionally, these changes will fuel social and geophysical feedback processes. Therefore adaptation is unavoidable and thus requires strategies for its implementation. This chapter frames the provisions for adaptation within the Climate Change Regime. It also presents the underlying current discourse and practical aspects. The last part of the chapter is dedicated to a discussion of the framework in terms of climate justice.

## 5.1 Adaptation strategies in the UN framework

Article 1 of the United Nations Framework for Climate Change Convention defines climate change as

“A change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable time periods.”

Within the UNFCCC there are different provisions aimed at enhancing procedural as well as distributive justice. It should be remembered though, that all of these are aimed at justice between states. A priority is accessing equity between the developing countries partly through prioritising adaptation activities, and between the developed countries in sharing the burden of financial assistance and technology transfer for adaptation. The UNFCCC’s institutional arrangements such as the Conference of Parties (COP), the highest decision-making authority responsible for reviewing the implementation of the convention (Article 7.2) and subsidiary and expert groups are supposed to enhance procedural justice. So far, the main tool for adaptation is the National Adaptation Programmes of Action (NAPAs) “to serve as a simplified and direct channel of communication of information relating to the vulnerabilities and adaptation needs of the least developed countries”. (For details see Ch. 3.4.2) Evidence and examinations of their process are slowly emerging but is still sparse.

These NAPAs are not to be considered in isolation. One objective of the NAPA guidelines is to achieve synergy with other MEAs, engagements and national commitments. Those most frequently mentioned are the United Nations Convention to Combat Desertification (UNCCD) and Convention on Biodiversity (CBD). Each of these conventions aims to increase strength and resilience to ecosystems. This in turn helps to reduce the economic and social vulnerability of a country and its inhabitants, but have different impact on the discourse, depending on the local context. For the LDCs, the Millennium Development Goals (MDG) adopted in 2001, Poverty Reduction Strategy Papers, and national strategies within all four frameworks are important complementary frameworks.

## 5.2 Adaptation in theory

The UNFCCC does not address adaptation comprehensively in any article, although there is a commitment in article four for its preparation (Adger et al 2006: 55-56). But other UN resources define adaptation as a referral to “all those responses to climate change that may be used to reduce vulnerability” or “actions designed to take advantage of new opportunities that may arise as a result of climate change”. However, the field of adaptation is new and there is yet no accepted consensus of the term (Burton et al 1998:5:1,2). Other definitions (all cited in Burton et al. 5:3) are:

“...the process through which people reduce the adverse effects of climate on their health and well-being, and take advantage of the opportunities that their climatic environment provides” (Burton, 1992)

“...any adjustment, whether passive, reactive or anticipatory, that is proposed as a means for ameliorating the anticipated adverse consequences associated with climate change (Stakhiv, 1993)

“...the degree to which adjustments are possible in practices, processes, or structures of systems to projected or actual changes to climate. Adaptation can be spontaneous or planned, and can be carried out in response to or in anticipation of changes in conditions (IPCC, 1996)

Maladaptation on the other hand refers to actions, which tend to increase vulnerability to climate change. This applies not only to future or unchanged scenarios but also to the current situation. This is why destructive, dangerous or unjust practices and processes must be addressed already today (Burton et al. 5:4). In this context paying attention to the gendered reality is imperative.

Burton et al (1993) have developed a commonly used classification framework of eight group categories of potential adaptation measures. In brief, adapted from Burton et al. (1998), these are:

1. *Bear losses* when there is no capacity to respond or when the costs are considered too high in relation to the risks or expected damage
2. *Share losses* among a wider community such as an extended family or village-level or, in high-tech societies through public relief, reconstruction and rehabilitation. Another share of loss is through private insurances.
3. *Modify the threat* by exercising control over the environmental threat itself. This includes mitigation measures such as flood control, protection against sea level rise and reduction of greenhouse gas emissions.
4. *Prevent the effects* for example in agriculture through changed crop management such as irrigation, fertilization and pest control.
5. *Change use* of land either in changing crops or in land uses all together.
6. *Change location* is another option switching land use between hot and cool areas for example.
7. *Research* into new technologies and methods.
8. *Educate, inform and encourage behavioural change*, which will be increasingly important the more obvious adaptation gets in communities, sectors and regions.

Adaptation can be either autonomous or spontaneous which is differing from conscious intervention or preparation, so called planned adaptation- an adaptation policy or strategy. What is considered autonomous adaptation on one level might be planned on another level though, e.g. individual choices of change of crop (Burton et al. 1998 5:8, Munasinghe & Swart 2005: 177). Some does not consider adaptation to current climate variability a substitute for long-term climate variability adaptation. It is a first measure to strengthen capacity (Burton et al. 1998 5:6). But as Huq and Khan has pointed out: “a focus on immediate and near-term impacts of climate variability, rather than long-term climate change, prioritizes the most vulnerable” (Adger et al. 2006: 189).

The records of asymmetrical relations of risk, vulnerability and adaptive capacity are well documented (e.g. Masika 2002, Kasperson & Kasperson 2003, Adger et al. 2001, 2006). Dow et al argues that adaptation is a solution to avoid harm and economic and psychological costs of uncertainty. Therefore the most vulnerable groups should attract special attention in policy making. Three dimensions are often included in the context of human vulnerability – exposure, sensitivity to the stress or coping abilities and longer time recovery abilities to future stresses, adaptive capability in particular. These must be balanced and prioritised in the different situations (Adger et al. 2006: 84-85,94). Global inequalities, chronic poverty and poor health weaken coping resources. Experience with climate variability and natural disasters indicate that patterns of social vulnerability, such as the vulnerability of women, children, elderly and minorities who face more hardships in difficult situation, underpin these global patterns (p. 87).

## 5.3 Justice in adaptation to Climate Change

Within the climate change discourse, adaptation is then the arena where the justice debate is brought down to local realities. Adger et al proposes four “cornerstones” of climate justice in adaptation (2006: 271-277). These are:

1. *Avoiding Dangerous Climate Change*, as outlined in article 2 in the UNFCCC but which should be considered as a minimum solution for responsibility, considering that further provisions are needed concerning the historical responsibility. This could be operationalized through setting a safe maximum standard for greenhouse gas concentrations.
2. *Responsibility should be forward looking* to ensure efficiency
3. *Putting The Most Vulnerable First*. Already mentioned in the convention a definition of vulnerability is needed along with a clarification of this commitment. Adger et al proposes a “vulnerability ladder” where the most needy are taken care of first followed by the second most needed et cetera.
4. *Fair Participation for All*. Focusing on fairness between states, a quasi-judicial subsidiary body receiving complaints related to adaptation to climate change is proposed. This could facilitate an establishment of an international standard of best practice. According to Adger et al this could also become a forum where local groups could get their interests and complaints recognized.

Mainstream interpretations of justice and fairness are usually theoretically framed within either the concept of distributive or procedural justice. Distributive justice is mainly concerned with the division of benefits and burdens in a given setting (Wenz 1994:251), while procedural justice in its strictest sense emphasizes the irrelevance of the consequences of an action or its guiding principles in making (just) decisions in favour of basic values (Ikeme 2003:196). These two conceptualisations are most notably attributed to John Rawls and Immanuel Kant respectively. In *A Theory of Justice* (1971) John Rawls states that society should identify desirable goals which is to be done from an imaginary starting position where “a veil of ignorance” prevents us from knowing where our end position will be in terms of status, health, economy and so on. His thesis is that such conditions would produce basic rights and freedoms, to avoid discrimination and that economic difference should only be allowed if those worst off would make a profit from this.

On the other hand, procedural justice represented by Immanuel Kant (1948) gives priority to individual-based conceptions of justice. Individuals are attributed with inalienable rights, which may not be interfered with (Nozick 1974). While justice theory of Rawls is favouring the general good before the individual, Kants categorical imperative proposes “*Act only on that maxim which you can at the same time will to be a universal law*”: the same actions will produce the same result (Goodin & Pettit 1998: *passim*).

## 5.4 Justice for whom? The capabilities approach

A postcolonial critique has showed that Rawls theory “uncouples justice from obligations, responsibility and recognition”. It is not the ignorance of one’s position in the world that motivates a just arrangement of social entitlements but precisely that knowledge of what has happened in history and also knowledge about what is done today in terms of fair distribution (Venn 2006: 167-170). Justice must refer to knowledge of the backgrounding to and consequences of ones actions. Adversely, in the kantian account of justice, equality is good in itself since we all are created equal and as such possess equal rights. For example the right of minorities to the same clean environment as the ethnic, class stratified or gendered majority. The problem with this approach is the ignorance of stratified biases and sources of power. Both approaches do apply the ‘view of nowhere’ in their reason and thus have to be assessed in material contexts.

A more recently formulated approach to justice as freedom, closer to a survival approach is the *capabilities approach* of Amartya Sen who connects equality of capabilities to distributive justice where capability is seen as the link between resources and welfare. Earlier we discussed the importance of knowledge and of acquired experience emanating from practices and production relationships. Capabilities as education, health, mobility and locality will position individuals and communities access to distributive justice. Using agency in the meaning of acting on and bringing about change in which the achievements can be judged from the individuals own values and objectives. The agent is perceived as a member of the public and as a participant in economic, social and political actions (Sen 1999: 19). Capabilities are either realized (what a person is able to do) or a set of alternatives (her real opportunities) (p. 75). In this interpretation poverty becomes not only a matter of finances but of knowledge and means of fulfilment. One needs the substantial freedoms-capabilities to “choose a life one has reason to value” (p. 74). From a gender perspective, the challenge is not to decide which to favour: equal participation or distributional access, but to bring principles of diversity and substance (e.g. capabilities and access) into the heart of discourse. A framework of climate justice must even more explicitly include the north-south dimension, connect global and local discourses and knowledge as well as more thoroughly emphasise our and future generations’ reliance on the biosphere. The different inclinations to justice in global discourse will, due to distorted relations of power have implications for those livelihoods taking the biggest toll of climate change.

# 6 The National Adaptation Programmes of Action and the feminization of survival - a critical reading

Any of the categories developed by Burton et al. (see chapter 5.2) and echoed in the NAPAs can be analysed from a gender perspective. Who owns the land/source of income where losses are to be shared? How will gendered practices such as management of water and fuel be affected by modifications? How will changes of land use affect gendered community roles? And how is gender considered in participation and knowledge input in research and education? Are gender asymmetries reinforced or challenged? From a survival approach, organized through gender, process, power and place this chapter assesses the social impacts of climate change and the concrete suggestions for adaptation or, more importantly, its absence.

## 6.1 Gendered processes

Including and disaggregating gender in the NAPA formulation *process* is maybe the easiest demand to meet, at least at face value. Referring to the equity criteria in the NAPA guidelines, the NAPA of Samoa states as follows:

“this criteria examines issues such as gender equality, equal distribution of income related activities and projects within the communities; equal opportunities for all sectors, organizations and businesses; empowerment amongst the community, reducing risks and hazards associated with climate change and reducing hardships in communities. Furthermore equity identifies preservation of natural and cultural heritages from the activities identified”

This constitutes the lengthiest elaboration on gender in any of the NAPAs published so far. Others admit that “women are not represented in great numbers in the consultation and decision-making” (Mauritania NAPA 2006:6) while others choose not to go further than to state that gender equity is one of the guiding principles that

has been considered. It should be noted that women are not absent in the process; in the contrary the NAPAs expose the input of women both as experts and as stakeholders. They are however outnumbered by that of men in all categories. On a more disaggregated level, it will be important to make sure to recognize which those women are that *can* participate. This would also allow for a more outspoken recognition of the impact of class and race/ethnicity. Moreover, there is no doubt that a bottom-up approach is the only course of action as far as justice is concerned but the risk that local governments or stakeholder groups could be captured by powerful vested interests which has been an issue in agrarian change in other rural contexts is not absent (Razavi 2003: 24-25). Therefore both formal and informal power relationships must be considered.

Most of the NAPAs acknowledge gender inequalities as a problem and women as a vulnerable group. Special attention is given to female and children headed households (Malawi NAPA 2006: 1), a consequence widespread in areas heavily affected by the HIV-virus and of AIDS. Depending on the local context this is perceived in combination with other factors. Some countries have a large pastoralist population. In Niger, multiple years of climate change induced droughts have contributed to the decrease of agropastoral production causing the departure of able-bodied people towards urban areas. This leaves only women and children behind, who are forced into small trading activities mainly based on gardening and sale of products and by-products from livestock whose access to fodder and water is also affected by climate change (Niger NAPA 2006: 44). Rainwater dependency is a major stress factor for communities, especially those dependent on rain-fed agriculture, regardless of gender. Therefore in some contexts pastoralist systems where owners dwell in urban areas actually may be less vulnerable (Mauritania NAPA 2004: 7).

In the NAPA of Malawi attention is paid to the number, age and gender of those trained for close to every project! This is definitely an assessment that should be included in every NAPA. What is interesting is that this is downplayed in technology intensive projects such as those including mapping, warning systems, building and installing (e.g. 2006: 28). This goes in line with other NAPAs where women's project participation mainly is explicated in projects targeting a sphere of production or reproduction where women's roles already are institutionalised. Another case is that of Bangladesh, that in spite of a comparatively strong position of gender issues only express female project participation in reforestation (Bangladesh NAPA 2005). As Fatma Denton writes from experiences in Africa "there is little logic in involving women in environmental conservation and tree-planting schemes when only a small percentage of women have control over land" (Masika 2002: 13).

There is a thorough need to gender disaggregate socio-economic data in all cases. This corresponds to more general recommendations proposed elsewhere: "to invest more in research and the production of gender disaggregated data, integrate gender into climate protection negotiations and policy making, and encourage women's participation in decision making and negotiations" (Röhr 2006: 3-7). The absence of this might be defended by the contents of the NAPA guidelines that recommend that national strategies should build on already

available data, which will be relevant in a later stage of policy development. It is important though to emphasize the need to include this at all stages.

## 6.2 Gendered powers

Survival is inevitably dependent on power relationships and interests. The feminization of survival has got two important aspects to it. On one hand: women's possibilities to get access to and control over resources increase, on the other: the positive consequences of this should not be uncritically overestimated. Women's responsibilities have increased and interaction with monetary markets does rarely relieve them of the responsibilities of social reproduction. The responsibility to support other family relatives and members of an extended family might also increase. In some of the NAPAs microfinance in poverty reduction strategies (PRS) is proposed as a measure to enhance the diversification of incomes, not only targeting women. This have had an impact in an immense number of communities, Bangladesh, another LDC country, is one example. Proposals consist of decentralized financing and credit allowances within the national PRS. Even though poverty alleviation is a major adaptation measure it is questionable to advocate this within the context of climate change. The question of power and responsibility becomes highly relevant: as argued elsewhere in the case of Bangladesh (by Farah Mazhar quoted in Jaquette and Summerfield 2006: 295-296), why is it that the main remedy to poverty has to be indebtedness of the worlds poorest and most vulnerable? At least, should we not consider pursuing the opposite? Patterns of domination will persist. In the context of climate justice if adhering to putting the most vulnerable first, is this not an incompatible measure? Also, are microfinances and credit allowances within national projects such as the introduction of HYV agriculture and specific cattle, however benevolent, really taking account of structural and commodified forms of power?

Power goes hand in hand with the responsibility of environmental destruction. Subsistence households do contribute to climate change too or are engaged in activities that increase the vulnerability of nature. The NAPA of Mauritania states that urbanization leads to use of charcoal devastating the rare forest formations before using dead wood only (p. 12). With fuel collecting, a gendered activity attributed to women and girls, this means that the cultural division of labour forces women to become actors in environmental destruction. (Another example is Niger where 90% of energy is provided by wood resources, contributing greatly to the deterioration of the forest). The main feature of Mauritania's forestry strategy is to improve furnaces and to renew sources of energy with an emphasis on butane gas (p. 51). Although attending to possible obstacles as poverty (ability to purchase equipment and price of gas) of the target population and of eating habits, more direct attention to the sexual division of labour and responsibilities has to be made. Mostly, gas tubes are heavy and handling these is not without

risk. The use of gas has to be appropriated to women's needs and to the character of household cores. Many projects are working with the distribution of small stoves in the marginalized areas of Africa; it has to be ensured that these kinds of projects are incorporated with the NAPAs. Also, incorporating men in these projects in a way that might share the burden could relieve the kind of backgrounding connected to household cores. Otherwise, the risk of maladaptation could be high. Another example assessed in this context and also in what was said about local vested interests in the former section, is the case of Mauritania where popularisation of village poultry farming is suggested to be organized using women nominated by their respective communities (Mauritania NAPA 2004: 25,44). This kind of projects could of course also have the effect to raise the status of keeping smaller livestock instead of cattle, challenging the backgrounding of women's work. A similar proposition with the aim to increase the income of women and youths are proposed by the NAPA team of Niger (Niger NAPA 2006: 62).

Gender awareness is not only important in terms of empowerment of women. Those responsible should get gender-sensitive training (Masika 2002: 36). This applies to men and women alike. In Bhutan the need for flood shelters and protection of the hydropower infrastructure (hydropower contributes to 12 % of Bhutan's GDP and is their main source of foreign capital inflow) such as the artificial lowering of glacial lakes makes many adaptation measures dependent on technology. The NAPA of Bhutan admits the need to reduce gender disparity in tertiary education (2006: 11). To give women access to the technical knowledge needed in these projects would in this case strengthen their position in environmental management *and* their position in disaster management where cultural biases (see below) could be addressed.

A final reflection on women and power is the relationship to health issues. Not only is the lower nutritional status posing them at greater risk to contract climate change aggravated diseases like measles, malaria, respiratory diseases and threats to reproductive health. One should be wary about propositions like the one of Mauritania where relying on traditional ethics and solid for caring for the poor is brought up. The global burden of disease affects women disproportionately, both as contractors of illness and as caretakers.

Social/ist ecofeminism has tried to empower women through their relationship to nature. The example of fuel collection is one example where gender inequality (as in responsibility and time consumption) creates the ecological crises. In reforestation programmes the knowledge of women, as collectors, should be valued but should also not only ensure control but make sure that unpaid, time-consuming labour is avoided. The same is valid for autonomous adaptation. Autonomous adaptation includes shifting homes to higher grounds, storing grains in local granaries, hunting small animals, gathering and eating wild fruits and vegetables, sinking boreholes, and using traditional medicines (Malawi NAPA 2006: 28). An increased feminization of survival will also feminize the responsibility to adapt irrespective of official contributions.

## 6.3 Gendered places

The notions of place in this discussion include physical space and material resources while it also could include a wider interpretation of place as an idea of psychological notions of abilities and possibilities. Distributive justice holds great significance in the matters of food security, agriculture and health, all of them directly dependent on material space. In legitimising the importance of distributive justice, referring to “The Tragedy of the Commons”, which in using the example of sheep herds overgrazing on communal land calculates natural resources to be depleted from unrestricted and excessive use, Wenz concludes that “*Justice usually becomes an issue in contexts in which people’s wants or needs exceed the means of their satisfaction*” (Merchant (ed) 1994: 248). ‘The Tragedy of the Commons’ has been used to justify privatisations and the presumed benefits of private ownership of natural resources, not the least from neoliberalist advocates. But in this case Wenz uses “the Tragedy of the Commons” to elucidate how each person’s appropriation must be coordinated with those of others to avoid destruction of natural resources and the practical meaning of justice in this process.

In many LDCs there has been diverse ways to own land and to use it that are still in use. Rights of public use and pastoralist grazing agreements have been common. Earlier governments have not always approved of these traditional ways of life but have in some cases tried to partition grazing areas traditionally communally organized (Mauritania NAPA 2004:17). Now, the partitioning of grazing areas is counteracted upon as to find more efficient and sustainable ways of herding. From a fairness perspective and also from a sustainable perspective Wenz analysis of the “Tragedy of the Commons is more appropriate than a neoliberalist interpretation. Climate change adaptation has to acknowledge that there are other ways to control land than private ownership. Unequal land-rights is an important mechanism through which female poverty and subordination is sustained and reproduced. It also poses a serious constraint on women’s agricultural enterprises (Razavi 2003: 4). As main providers of fuel and water, the privatisation of land has meant the double burden of gendered constraints on access to these resources and to environmental degradation. Additionally, inheritance laws often lead to privatised land ending up owned by men (Jaquette & Summerfield (eds) 2006:161). In the age of Structural Adjustment Programmes (SAPs) and the commodification of markets and space respectively, these gender issues are crucial for sustainable gender relationships. It is exceedingly urgent when utilizable land is getting more and more sparse due to climatic impacts.

When agricultural rural employment stagnates, men can more easily than women change to urban or rural non-farm employment. As women’s responsibility for agriculture thus increases so does the importance of access. This could be done through various forms of collective investment and cultivation (Agarwal quoted in Razavi 2003.8-9). Although discussed in an Indian context there are lessons to be learned not only from this but also from other contexts

such as the Green Belt Movement in Kenya. One problem, especially in the context of the Sahelian countries is the destruction of arable land. If access to land or enhanced land rights is to empower women the land has to have potential for long-term sustainability. Another problem to be addressed in this context is the change to high yielding crop varieties (HYV). Many ecofeminists, most notably Vandana Shiva has loudly opposed the effects on biodiversity by these measures, especially the possible effects of genetically modified varieties. Introducing HYVs in risk communities as a way to alleviate poverty is an issue in many of the NAPAs. As many HYVs are dependent on fertilizers and in some cases pesticides this will in combination with the feminization of agrarian labour pose new and unknown threats for women's health. The commodification of seeds and by-inputs like fertilizer, might actually decrease women's control over their bodies and their production. From an ecofeminist perspective, the domination of women and of nature is obvious. When introducing more climate resilient crops and livestock the impact of commodification and implicit patterns of control has to be considered. In addition, the cultural value of crops must be accepted so as to ensure bottom-up long-term participation.

The NAPA team of Malawi has as their first priority project to strengthen the development of alternative sustainable livelihoods (2006:12,16). Putting articulated livelihood approach and connection to sustainability discourse first hand could be a constructive advancement of an inclusion of gender issues on a broad basis. One of the purposes of this project is "...mainstreaming cross cutting issues of HIV/AIDS, gender and environment".

The loss of economic space is not an issue in drought areas only. Rising sea levels is a problem for coasts and coastal deltas. In Bangladesh, it is estimated that 18 percent of the countries are will be lost within a century (Masika 2002: 46). In the landlocked country of Bhutan, melting glaciers threatens communities when glacier lakes levels will rise and cause violent floods (GLOF) in lower areas (Bhutan NAPA 2006:12). Both of these countries are also affected by the south Asian monsoon, a weather system whose timing, length and intensity is very sensitive of global warming. Cultural biases in disaster responses as seeking shelter and in rescue has been highlighted by others ([www.reliefweb.org](http://www.reliefweb.org)). Women's clothing restricts their mobility and they are less likely to know how to swim. Neither of those NAPAs that have to address emergency situations takes notice of these kinds of gendered constraints. In a class perspective it could also be the case that these kind of cultural constraints have an even bigger impact on the more affluent groups due to stricter taboos on clothing and bodily exposure.

The population pressure on limited land resources is also speeding up migration and urbanization. This does not have local impacts only. At present there is an overall feminization of spatial processes all over the globe. The feminization of poverty is not only a phenomena in the global South, neither is the feminization of migration where millions of women are migrating to work abroad, often in highly gendered businesses as the sex industry or in housekeeping. Another kind of migration is targeting the 'off shore' industries increasing in low-pay countries. These aspects of the feminization of survival should be considered in a climate change environment. When the climate refugee

discourse is placed higher up on the political agenda, the situation and backgrounds of these *climate migrants* must be considered, and it must be considered from a gender perspective.

## 7 Conclusion

The discourse on Climate Change is extensive, framed in crosscutting themes and sources of knowledge integrating natural and social science. It takes shape in the nexus of the past, the current and the future embracing 'glocal' fluxes and processes.

All of the LDCs have a high proportion of subsistence farmers and are gender biased in terms of household energy and water management. Capabilities are not only gendered but also stratified among the lines of class and ethnicity, although in varying degrees. National contexts are still highly diverse. The value of 'commonalities in diversity' is not only the elucidation of gendered livelihoods in a feedback perspective or within the NAPA process. There are a multitude of geographical places sharing the circumstances and the strains highlighted here. But outside the group of countries where assessments are financed by the GEF there will be less empirical evidence of their different vulnerabilities and risks. The gendered commonalities reviewed here could be informative also for these areas within other frameworks.

What do these discussions of justice mean to those women in marginalized places and realities that are the most vulnerable to climate change? Justice is about correcting distorted balances: the goal for feminist analysis is to bring forth imbalances in power, in distribution and in capabilities. Putting the most vulnerable first will unquestionably favour these as poor women are clearly identified as some of the most vulnerable. Nevertheless, formulated by the mainstream discourse, this does not ensure justice in process, in distribution of power and does not ensure diversity in voices spoken or listened to. A 'clarification' of the NAPAs commitment of to bottom-up, stakeholder- and country-driven approaches is definitely imperative. Still, practical measures are designed for women while policy strategies are designed for men.

Gender equity as one of the NAPA guidelines steering principles does give incentives to improve justice in the formulation process. So does the commitment to the importance of stakeholder information input. What is needed is to mainstream multiple understandings of justice; such as cooperative forms of entitlements in positive rights and a capabilities approach to negative rights, into these provisions and not the opposite. A stronger emphasis is needed on intersecting forms of oppressions and marginalizations. One aspect of individual livelihoods is to what extent they are directly interacting with natural resources and natural fluxes. A gendered account of climate justice will acknowledge livelihood predispositions, the horizontal stratification within genders and the vertical stratification of class. Money and social position may buy you distance

from bodily work, from interacting with natural resources. It will also bring you geographical mobility, making it possible to create livelihoods in safe and clean environments. Due to processes of connecting colour with value, ethnicity will intersect with class and money. Gendered interactions with the environment should be reevaluated so as to include the way subsistence production and reproduction is embodied. It is when master models and backgrounded livelihoods are challenged that both existing capabilities and those needed may be truly incorporated into adaptation strategies.

It could be argued that cultural biases is taken care of in other frameworks. But NAPA is an important policy document, has direct connection to wider rights framework and could and should set the tone in basic rights and justice issues. It is also important though, to emphasize the specifics of climate justice in terms of its historical heritage on a global scale, its far-reaching intergenerational implications and the scale of the environmental change imposed on ecosystems and human livelihoods. Using existing networks and education strategies for gender-sensitive training, may also create possibilities to address other intersections of oppression that otherwise might be hard to tackle openly. It is not however realistic to assume that divisions between classes and ethnical groups are to be overcome with some 'gender magic'. Nevertheless viewing gendered asymmetries as the most overt form of oppression makes these existing routes of knowledge open for the inclusion of other asymmetries.

At the end of the day, it is a fact that these asymmetries are still to be challenged and so are patterns of domination: of women, of gendered practices and of the biosphere. Bio means life, every sphere has a geography of space, an area. This is an area for survival: a livelihood. When women make up half the worlds population but does not have access to half of the world's means of power, capabilities, resources or space, gendered justice in climate change adaptation is a most imperative issue.

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