



Gender and Climate Change

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Table of Contents

Foreword	7
1. Abstract from desk study on gender, gender equality, and climate change	9
1.1 Introduction	10
1.2. Introduction to Gender and Climate Change	13
1.3 Examples of Gender-Specific Issues in Climate Change.....	21
1.4 Women, Climate Change, and Decision-Making Processes	36
1.5 Key Concepts in Gender and Climate Change	40
1.3 Gender and Climate in Brief.....	44
1.4 References and Links	47
2. Nordic Summit Declaration	53

Foreword

Since the Nordic prime ministers in 2007 agreed upon a Nordic globalization initiative, Nordic Council of Ministers has focused on political approaches to sustainable solutions on climate, energy and environment.

Climate change is undoubtedly one of the modern era's greatest challenges. Global population increase and economic growth have caused a rise in basic energy needs. At the same time, we are more aware today of the negative impact that burning fossil fuels has on the environment. Meeting these challenges in an effective manner requires comprehensive long-term policies that will affect significant areas of society, including energy supplies and human behavior patterns and lifestyles, all of which must fundamentally change. We are quite simply on our way into a new energy and climate era.

There is a great demand for innovation in energy and environmental technology, and the Nordic countries have strengths and expertise that are worth developing to a greater extent. Clear advantages exist in areas like gender relations and the environment; the task is to better leverage these advantages for economic benefit as well.

During three decades of working toward gender equality, the Nordic Council of Ministers has continued its efforts toward achieving full gender equality in Nordic societies. Indeed, the Nordic democracies have distinguished themselves through their active work in all areas to promote gender equality in each country. Right now, Nordic gender equality cooperation is facing new problems that reflect the growing globalization of their societies and that complement more traditional areas of gender equality work.

The Nordic Ministers for Gender Equality, under the auspices of the Nordic Council of Ministers, decided in May 2008 to focus on gender equality and climate change. As a follow-up of the ministerial meeting a Nordic Summit on Gender and Climate Change was arranged in February 2009. At the conference, participants drafted concrete recommendations on gender equality and climate change, in preparation for the UN Climate Change Conference (COP 15) to be held in Copenhagen in December 2009.

This report includes the Abstract from the Desk Study on Gender Equality and Climate Change, the Nordic Summit Declaration and a short Film on Gender and Climate Change.

1. Abstract from desk study on gender, gender equality, and climate change

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For the Nordic Council of Ministers – 2009

Abbreviations

CBD	Convention on Biological Diversity
CDM	Clean Development Mechanism
CERs	Certified Emissions Reductions
DANIDA	Danish International Development Agency
FAO	Food and Agriculture Organization of the United Nations
FAOSTAT	FAO statistical databases
FRA	Global Forest Resource Assessment
GATT	General Agreement on Tariffs and Trade
GDP	Gross domestic product
GEF	Global Environmental Facility
GHG	Greenhouse gases
GWP	Global Warming Potential
IFPRI	International Food Policy Research Institute
IPCC	Intergovernmental Panel on Climate Change
IUNC	The World Conservation Union (formerly the International Union for the Conservation of Nature and Natural Resources)
MEA	Millennium Ecosystem Assessment
OECD	Organisation for Economic Co-operation and Development
PES	Payment for Environmental Services
UNCCD	United Nations Convention to Combat Desertification in Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa
UNCED	United Nations Conference on Environment and Development
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNEP-WCMC	UNEP World Conservation Monitoring Centre
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFCCC	United Nations Framework Convention on Climate Change
USDA/FAS	United States Department of Agriculture: Foreign Agricultural Service
WEDO	Women's Environment and Development Organization
WHO	World Health Organization
WRI	World Resources Institute
WWF	World Wide Fund for Nature

1.1 Introduction

1.1.1. Background

The March 2008 session of the United Nations Commission on the Status of Women (CSW) featured a panel debate about gender and climate. As a follow-up, in May 2008, the Nordic Ministers for Gender Equality, under the auspices of the Nordic Council of Ministers, agreed to allocate funding to arrange a joint-Nordic conference on gender equality and climate change. On behalf of the Nordic Council of Ministers, the gender equality department of the Danish Ministry for Social Welfare convened the Nordic Summit on 2 February 2009. At the conference, participants drafted 15 concrete recommendations on gender equality, gender, and climate change, in preparation for the UN Climate Change Conference (COP 15) to be held in Copenhagen in December 2009.

This report is a background document for the Nordic Summit Conference and seeks to increase visibility in the following areas:

- Women and men affect the environment differently.
- Women and men are affected differently by climate change.
- The gender distribution in climate-related decision-making processes is out of balance.

Further, the report illustrates that there are major differences in the environmental impact of developed and developing countries.

Overall, the goal is to adjust the focus at the political, organizational and individual levels to:

- Map out problem areas and inform the debate about gender and climate
- Contribute a gender and gender equality perspective for COP15
- Encourage public debate about the question and inform the debate about the often divergent sustainability profiles of women and men.
- Encourage debate among public and private actors on issues including climate, transportation, and energy use, to achieve more informed outcomes.

The project's target groups include politicians, stakeholders, researchers, organizations that work with the issues of gender equality, climate, transportation, and energy use, and the general public, at the individual level: individual women and men.

The Nordic Council of Ministers' Strategy for Sustainability and Globalisation forms part of the platform for the conference as well as the initiative.

1.1.2 UN Conferences on Climate Change – and Gender

The Nordic Council of Ministers initiative should be seen in the context of the UN conferences on climate change. International climate negotiations occur within the framework of the UNFCCC – the United Nations Framework Convention on Climate Change – adopted in 1992 in Rio de Janeiro. Today, nearly all of the world's countries (192) have signed onto the convention. The climate convention is designed as a framework convention with the overall aim of combating climate problems, but it does not contain binding reduction commitments. In connection with the Climate Convention, there is an annual conference, 'Conference of the Parties' (COP), for parties to the convention. The COP is the highest body of the convention. The Climate Conference in Copenhagen in December 2009 will be the 15th UN Conference on Climate Change, hence the name 'COP15'.

Gender equality between men and women is not mentioned in the UNFCCC, even though it is relatively well integrated into Agenda 21, another outcome of the Rio Earth Summit. The question of the different resources, interests, and needs of men and women when it comes to climate issues has not been introduced at the convention's COPs. Debates and negotiations have centered mainly on economic and technological matters, and more socially oriented themes such as women, men, and gender equality have not been taken into consideration. During the negotiations for the Kyoto Protocol, and in particular compared to the negotiations on Clean Development Mechanisms (CDM), the gender perspective did begin to emerge, primarily in connection with developing countries. At COP13 in Bali, for the first time in the history of the UNFCCC, a global network on the relationships between gender and climate, GGCA (Global Gender Climate Alliance), was established. It is backed by numerous UN organizations and NGOs, including UNDP, WEDO, UNEP, and IUCN. Various organizations also arranged a series of activities focusing on gender, and particularly women. These activities have elicited growing interest and increased awareness, because they included binding opinion statements from relevant stakeholders.

A review of UN conventions showed that the Climate Convention is one of the few conventions to not take into consideration men's and women's different resources, interests, and needs. As a result of growing attention on the connection between gender and climate change, the UN Climate Change Secretariat in Bonn, Germany, has appointed a gender coordinator and named four 'Focal Points' in three of UNFCCC's programme areas (Financial and Technical Support Programme for Non-Annex 1 Parties; Sustainable Development Mechanism's Programme and Adaptation; Technology and Science Programme). In connection with COP14 in Poznan in December 2008, a series of meetings were held on gender and climate change within the UN/NGO context (GGCA, Global Gender and Climate Alliance), as well as under the auspices of the "Net-

work of Women Ministers and Leaders for the Environment". Meeting participants agreed to use the two networks to create concrete recommendations and text formulations for use in climate negotiations. The UN's Climate Change Secretariat is going to analyze the ways in which gender can be discussed in connection with the climate conventions, emphasizing that:

"...the UNFCCC secretariat recognizes the gender dimension of climate change and that its impacts are likely to affect men and women differently. To this end we strongly advocate formulating gender inclusive policy measures in addressing climate change. We also believe that women are important actors in ensuring their communities' ability to cope with and adapt to climate change. They can be effective agents of change and are often the ones turned to in times of need and can play a role in crisis situations" (T. Sherpa, UNFCCC Secretariat).

1.1.3 The Report

The aim of this report is to uncover some of the relationships between gender and climate change. The report illuminates the problems from the viewpoint of both developed and developing countries. In the case of industrialized countries, the focus is on the ways in which men and women affect the climate differently, while in the case of developing countries, the focus is on examining how men and women are affected differently by climate change.

The report is a result of a month-long desk study that uses currently available sources and data as its starting point. It is relatively novel to consider the climate change debate through a gender perspective. Most of the viewpoints and analyses conducted from a gender angle have focused on gender-related problems in developing countries, and have depicted more general knowledge about the relationship between gender, the environment, and development in developing countries, rather than analyzing the situation of industrialized countries. Generally speaking, no compilation or survey studies have been carried out to examine the connections between women's and men's behavior patterns and climate change. This does not mean, however, that it is not possible to systematically approach gender in relation to climate change. Studies have been conducted in climate-related sectors, such as transportation and food materials, where gender-based differences have been studied. They are therefore relevant in this context. Because of the differences in the materials that the analysis of industrialized and developing countries is based upon, the analyses differ in terms of character and basis. It should also be noted that the report is not based on a comprehensive literature search of all material ever published on the topic; instead, the report has utilized key sources as its starting point. It is in part based on internationally published data regarding developing countries and in part on Scandinavian data on industrialized countries. The report also benefits from some information relevant to gender and climate obtained from NGOs such as WEDO and GenderCC.

The NGOs are considered reliable sources of information. The report will name individual references throughout, and finally list all references used in the report in Chapter 7.

The report is organized so that *Chapter 2* outlines the report's argument regarding climate change. The goal is to show that all efforts in connection with climate change should be evaluated from a gender equality perspective as well as a climate perspective. Innovation is here considered an entry point to tackling climate change. *Chapter 3* deals with gender and climate in industrialized and developing countries. The key questions in industrialized countries are illustrated through two selected areas: transportation and food. In the case of developing countries, the focus is on how men and women are affected by climate change, and the key questions are examined within three different areas: land, water and climate-related catastrophes. *Chapter 4* addresses the shortage of women in decision-making processes in climate policy. *Chapter 5* provides a brief introduction to key concepts in the gender and climate debate, and *Chapter 6* summarizes some of the most important facts currently available. All information and references used as background for the report can be found in *Chapter 7*, arranged by chapter.

1.2. Introduction to Gender and Climate Change

There has always been variation in the climate, but since the industrial revolution and especially since the 1950s, human-induced changes in the climate have become increasingly visible. In the fourth report on climate change, the UN climate panel (Intergovernmental Panel on Climate Change, IPCC, 2007) decided that it was now definitively possible to conclude that greenhouse gases contribute to climate change. Human activities cause major changes in both local and global climate systems. Higher emissions and concentrations of greenhouse gases, such as CO₂ and methane, warm up the earth's surface and change its atmosphere. Approximately three-quarters of human-induced carbon emissions are a result of burning fossil fuels, and the rest comes from changing forms of land use, especially deforestation. The panel has concluded that climate change has already begun to manifest itself in numerous ways and that the changes will be dramatic, unless we work to prevent them.

Historically, industrialized countries have produced 80 percent of all greenhouse emissions, and hence, they also bear much of the responsibility for climate change (Dankelman 2002). Climate change means that natural catastrophes such as floods, storms, droughts, and other extreme weather events are expected to become increasingly frequent and severe in the future. Similarly, there has been a gradual alteration in the conditions of agricultural production caused by changing rain patterns and flooding. Gradually changing rain patterns, flooding, and so on, change

the conditions of agricultural production and life itself. While there are many differences between individual developing countries, they all have one fact in common – it is poor people who are most severely affected. The poor mostly subsist by farming, and with no insurance or welfare structures to fall back on, they are therefore severely affected when crops are destroyed.

The role of humans in climate change also raises questions about who affects the climate the most, and who are most affected by climate change. The unequal distribution of power and wellbeing are just some of the causes and effects of climate change. The Climate Justice Network has concluded that “there is certainly an environmental justice aspect to climate change, and it is necessary to see the links between the environmental issue of climate change and social injustices” (CJN 2001: 1).

FACT: One billion of the earth's 6 billion inhabitants are responsible for 75 percent of all energy consumption and account for the majority of all emissions from industry, toxins, and consumer goods. (Source: Johnsson-Latham 2007)

Climate debate and policies have a tendency to focus on the technological and economic aspects of climate change and less on its human and social contexts. Various experts on gender issues and the developing countries have criticized this myopia. It has been pointed out that a sustainable, low-carbon economy cannot be achieved solely through technological innovation, and that far-reaching innovations in the social arena are also needed (Skutsch 2002, Buravan 2008). The argument here is that a broader focus on the social contexts of climate change will provide greater knowledge, better tools, and new technology, helping to create more and better opportunities for achieving the goal of a post-fossil fuel society.

1.2.1 Toward COP15, Copenhagen 2009: the 5 Building Blocks

Through the UNFCCC, the international community is cooperating to find solutions for the challenges of climate change. At the COP13 conference in Bali in 2007, an action plan detailed the substance of further work to be done within climate change negotiations. The Bali Action Plan, also called the Bali Roadmap, looked forward to the COP15 climate conference in Copenhagen in December 2009. In the Bali Action Plan, the parties agreed on the main components on which a future agreement is to be built. The Action Plan names four building blocks and the importance of a shared vision:

- *Shared vision.* The vision is based on the paragraph specifying the convention's objective of avoiding dangerous human-induced climate change and ensuring continued and sustainable economic growth. All countries emphasize that the shared vision will be guided by scientific recommendations.
- *Mitigation.* Industrialized nations are expected to undertake mitigation commitments. This point represents a particular challenge, because the total commitment must be sufficient in scope and because the division of obligations between countries must be perceived as fair.
- *Adaptation to expected climate change, with a particular focus on the poorest and most vulnerable developing countries.* The consequences of climate change are expected to be most severe for the least developed and most vulnerable countries. There is a clear international obligation to assist the poorest and most vulnerable developing countries to adapt to the consequences of climate change.
- *Financing and investment.* An emphasis on the need for considerable development of financing and investment in a post-2012 agreement, in terms of both reduction commitments and adaptation measures.
- *Technology.* Focus on the need to reinforce technological development and distribution in terms of existing as well as new technologies. Negotiations have placed a strong focus on analyzing the barriers that stand in the way of technological development, technology transfers, and capacity building.

The five building blocks, above, do not take into account the different resources, interests, and needs of men and women, and thus fail to assess the consequences of the various commitments for men and women. It is possible, however, to incorporate a gender perspective into the building blocks. This is part of the work that the UNFCCC, relevant NGOs, and other stakeholders face. Below, examples illustrate how this work can be undertaken.

Visions:

Building block 1: The development of Shared visions requires innovative thinking. This means that all resources and experiences must be taken into consideration. Women and men can have different opportunities and viewpoints that are meaningful and important in developing visions.

Building block 2: Reduction of greenhouse gases. While creating more efficient energy technologies is central, reduction can also occur at the individual level. Women's and men's consumption and therefore emission of greenhouse gases differs. In order to be effective, the policies and strategies for reducing greenhouse gases in industrialized countries need to be based on knowledge about the different behavior of women and men.

Building block 3: Adaptation to climate change, particularly in the poorest nations. In general, women are the poorest of the poor in developing countries. A focus on poor countries must therefore also include a special focus on women. In other words, effective adaptation cannot occur without taking into account the resources, interests and knowledge of women, as well as knowledge of the conditions in which poor women live.

Building block 4: Financing and investment. Incorporating a focus on women and men in the financing of climate adaptation projects can help ensure aid that is the most effective possible. There are well-established tools for taking gender into account in project financing; one example is so-called gender budgeting. With the help of gender budgeting, it is possible, for example, to assess who benefits from particular projects and investments.

Building block 5: Technology. Diversity breeds innovation. Incorporating the knowledge, competence and resources of both women and men is a key part of achieving optimal technological development. This is true in both industrialized and developing countries.

1.2.3 Innovation

Climate change has created a debate about the need for new ways of thinking about wellbeing. If we are to increase sustainability without threatening our wellbeing, we need novel, innovative solutions.

The concept of innovation is not unambiguous. The OECD and EU define innovation as the "introduction of a new or significantly improved product (good or service), a new or significantly improved process or marketing methods, or a significantly improved organizational method." (Ministry of Economic and Business Affairs, Denmark, 2005, OECD-Eurostat 2005). The concept is also often used in connection with technological innovation, and the OECD refers for example to technological innovation as a generator of new products or processes. This definition can be understood in the context of the industrialization that is characteristic of OECD nations. The value of innovation is understood against its

ability to provide a company or product with a comparative advantage on the global market.

Others understand innovation more broadly and emphasize that local economic and social development cannot be excluded from the definition of innovation. People live in a local social, cultural and geographical context, and what is highly valued in one place may not necessarily be important in another place. The processes behind innovation can therefore come about differently. In this viewpoint, innovation is understood contextually rather than universally.

Innovation is not immediately perceived as gender related, but studies have shown that taking gender and gender equality into account can have a positive impact and help encourage innovation. Women are often depicted as the end-users of innovations, instead of as innovators. This is problematic, because as recipients of information they do not have the power or control over the information that, for example, an innovator would need. Similarly, the exclusion of women as innovators means that their resources and knowledge are not taken into account in development processes. UN General Secretary Kofi Annan's comment that "no tool for development is more effective than the empowerment of women" (made at the opening of the 49th session of the Commission on the Status of Women, Beijing +10, New York, February 28, 2005) represents an understanding of this question.

Both Scandinavian and international studies have shown that there is generally a significantly positive connection between innovation and diversity. This is true of gender, education, and national background. Studies show that the lack of gender equality inhibits economic growth, and that gender equality and equal opportunities for both genders are the preconditions of a healthy economy, social coherence, and sustainable climate measures. Among other things, this is a result of differences in ways of thinking and access: generally, women are more likely to think about the consequences of production – for example sustainability – while men are more inclined to think about productivity and production itself. From this perspective, a better gender balance would spur the kind of major innovations that will help create a more sustainable society.

VISIONS: In looking for solutions for adaptation and prevention processes, it is important to ensure the inclusion of the gender equality perspective. Women and men are both part of the solution as well as the problem, and must therefore be included in innovation processes. Wangari Mathai, recipient of the 2004 Nobel Peace Prize, puts it rather succinctly: "There can be no sustainable development without an equitable development; and there can be no equitable development without gender equality." (Robinson & Wallström 2008)

Research:

A report about gender and innovation in Asia noted that “Women can and have played important roles in innovation systems. They are quick at grasping the social and sustainability aspects that are part and parcel of a successful technological innovation. One sees these skills in the ways in which TIDE’S stove-builders have modified and sold the smokeless Sarala stove to various villagers, often changing them as each user required. They have accomplished this by making alterations in aspects of the stove design and materials, drawing artwork on the stove and kitchen, even building chimneys with discarded electrical poles and making other aesthetic changes to the stove as desired by the users.” (Source: Byravan 2008)

Fact:

A Danish study shows that companies with an equal balance of men and women are twice as innovative as other companies. Researchers calculate that businesses can boost their innovation capacity by 110 percent by increasing the share of women from 25 to 40 percent. In other words, companies become far better at developing new products and services when there is an equal balance of women and men. (Source: Danish Agency for Science, Technology and Innovation 2007)

Innovation can be understood as ideas, products, processes and activities that meet particular needs. When an idea is tested and found workable, and when other people replicate and spread it, this constitutes a social innovation. A social innovation can change the ways we understand a problem; the way in which we think about more general situations, and can thereby result in a change in behavior. Switching to more sustainable purchasing habits is an example of this kind of shift. Social innovations are not only about producing products for a market, but also about improving our lives. One innovation researcher points out that social and technological innovation should not be viewed as separate categories, but as intertwined: “Innovation is the generation, access to and utilization of knowledge and the progressive economic and social changes that go with it” (Raina, quoted in Byravan 2008). Social, technological and institutional innovations may follow, if a new practice or technology leads to lasting transformations. This access to innovation is important to keep sight of, when we consider men’s and women’s opportunities for innovation.

Example:

Grameen Phone, a mobile phone company in Bangladesh established a programme in 1997 to give women access to microcredit to acquire digital GSM cellular phones. They then resell phone calls and phone services within their villages. As a result of the programme, 950 village phones provided telephone access to more than 65,000 people. In this case, the new technology became a tool of economic empowerment for the woman proprietor and a crucial lifeline of communication for her village to the outside world. Each woman became a reliable but powerful controller of communications. This has been cited everywhere, including *The Economist*, as a powerful example of how economic development can result from use of a new technology. (Samson 2006)

1.2.3 Scenarios

This report introduces some of the relationships between the components of ‘gender equality’, ‘gender’ and ‘climate change’. ‘Relationship’ means taking into account all of the components when working to create a more sustainable society. In other words, efforts to address climate change also need to take into consideration their effect on gender and gender equality. Also, efforts that are aimed at gender and gender equality should be evaluated for their climate impact.

There are systematic and tangible ways in which legislation, politicians and projects can be evaluated from both an environmental as well as a gender equality perspective. The EU uses so-called VVM studies in the environmental field, carried out to uncover and evaluate the environmental effects and consequences that can be expected from projects like major road expansion or new road building, which have considerable environmental consequences. In the area of gender equality, the EU also makes use of “gender mainstreaming”, a strategy for evaluating gender impact. Gender mainstreaming consists of investigating the ultimate and practical implications of decisions in terms of gender equality. The tool can be viewed as a method for promoting equal opportunities and freedom of choice for women and men and for simultaneously improving the quality of decision-making and measures. For example, it is noted in Paragraph 4 of the Danish gender equality law that all work carried out by public authorities must take into account gender and gender equality in all planning and administration – popularly called gender mainstreaming. In Denmark, new legislative proposals undergo a series of consequence evaluations for the proposal’s environmental consequences and – when relevant – its consequences from the standpoint of gender equality.

As an illustration of how a gender equality perspective and a climate perspective can both be incorporated into the same area, we will use an

example from the transportation sector of the industrialized countries. The example is intended to reveal the complex relationships that are at play when measures to address climate change also undergo a gender equality analysis.

Transportation, gender and climate change

Mobility is an important factor in the labor market, and for families, free time, and other activities. Barriers in the transportation system result in barriers in other areas of women's and men's lives. Studies show that women consider it important to live in an area that is close to their place of work, and avoid jobs that are too far away from where they live. As people want more time for work and family, and less time spent in traffic, it means that the faster the modes of transportation, the more job and free-time opportunities are available to women. Taking into account women's need for speedy transport in transportation planning can contribute to a situation in which women have greater access to a wider job market. In this way, transportation can be very meaningful from the standpoint of gender equality.

Looking at transportation from a climate change perspective, things appear as follows: in recent decades, pollution-producing and energy-consuming transportation has increased, while the proportion of energy-conserving transportation has not increased to a similar degree. Future projections have car traffic continuing to grow at the expense of public transportation and creating a number of challenges for the goals to reduce carbon emissions. Studies show that men make up a greater proportion of car users than women, but also that women – at least highly educated and economically better off women – are increasingly adopting the same transportation behaviors as men. This goes counter to the goal of creating a sustainable transportation system.

In purely gender equality terms, one might want to promote women's adoption of masculine patterns of mobility. This would give women access to faster and more flexible methods of transportation, but it would also translate to an increase in car traffic. When adding sustainability to the equation, increased car traffic is clearly not the answer. We have to think in more novel ways. For example, the higher rate of usage of public transportation among women could be set as the norm, and both genders could be encouraged to take shorter trips, use more public transportation, ride a bicycle, and walk more. This also means that infrastructure planning must support such planning by integrating workplaces and residential areas more effectively (Næss 2007).

Summary:

By considering transportation from both a gender and climate change perspective, we can achieve the following outcomes:

- Sustainability – ensuring an environmentally conscious transportation system in the future.
- Gender equality – ensuring equality between the genders.

1.3 Examples of Gender-Specific Issues in Climate Change

Climate change is usually viewed in gender-neutral terms – people assume that women and men affect the climate in the same way, and that climate change affects both genders identically. But we humans often have a highly gender-specific way of interacting with our physical environment. Women's and men's lifestyles, behaviors, and consumption are different, and they leave a different environmental footprint (Johnsson-Latham 2007, Hansson 2007). Climate change also affects women and men differently. IPCC, the UN climate panel, has concluded that “climate change impacts will be differently distributed among different regions, generations, age classes, income groups, occupations, and genders” (IPCC 2001). This chapter illustrates some of the relationships between gender and climate change in industrialized and developing countries, and it also explains why it is important to develop strategies and adaptation processes that focus on gender-specific problems and imbalances.

The chapter is divided into two sections. The first section looks at industrialized countries, and the second one at developing countries. Both sections contain an examination of how gender is connected to climate change in that particular part of the world.

1.3.1 Examples from Industrialized Countries

The industrialized countries are responsible for most of the greenhouse gases that contribute to climate change. For example, one billion of the world's 6 billion inhabitants consume 75 percent of all energy and account for the majority of all emissions from industry, services and consumer goods (Johnsson-Latham 2007). The emission of greenhouse gases is blamed particularly on the burning of fossil fuels. This burning is connected to the ways in which industrialized countries produce and consume, and to the lifestyle that is characteristic of the industrialized countries. At the same time, some countries, such as Denmark, have shown that it is possible to combine strong growth and higher use of post-fossil fuel energy forms. A high level of consumption is an important part of

economic development in industrialized countries and also a creator of identity for their populations. Clothing, furniture and cars are signs that proclaim “who I am”. There has been very little attention on the different ways in which women and men consume and contribute to the emission of greenhouse gases, but the information that is available indicates that women and men affect the environment through their consumption in different ways.

This chapter will examine behavioral differences between women and men in two sectors that play a substantive role in the production and consumption practices of industrialized countries. They are also sectors from which information is actually available regarding the different practices of women and men. The first sector is foodstuffs, examined here via the example of meat consumption. Globally, it is estimated that livestock production is responsible for up to 18 percent of all greenhouse gas emissions (FAO 2006). At the same time, we know that men’s meat consumption surpasses that of women (Fagt et al. 2006). The second sector is the transportation sector, and the example used here is passenger transport. It is estimated that approximately 19 percent of all global energy goes toward transportation (IEA 2005). We also know that men are far likelier than women to use highly energy-consuming forms of transportation such as private cars, whereas women are likelier than men to use public transportation (Co-ordination for Gender Studies in Denmark 2007).

Consumption

Since the Brundtland report of 1987 and the Rio Earth Summit in 1992, the issue of sustainable consumption has received greater attention in international politics. At the Oslo Symposium on Sustainable Consumption in 1994, sustainable production and consumption were defined as “*the use of goods and services that respond to basic needs and bring a better quality of life, while minimising the use of natural resources, toxic materials and emissions of waste and pollutants over the life cycle, so as not to jeopardise the needs of future generations*” (Grover et al. 1999). Since then, there has been greater focus on production and consumption, but no systematic information about or focus on the connection between gender, sustainable consumption and climate change yet exists.

It is well-known that consumption patterns between women and men generally vary (Jensen & Holm 1998; Grover et al. 1999; Warde 1997). This is the case for rich as well as poor nations. Two important factors contribute to the differences: gender-segregated division of labor and women’s and men’s different access to resources and material wealth. Women frequently have smaller incomes and less free time than men, which has an impact on how and what they consume.

Women have an active role in everyday consumption, since they are often responsible for a family’s shopping. From this perspective, women

represent the largest consumer group globally. This does not always necessarily mean that they themselves consume what they buy.

Food

Food is a specific area of consumption where the link between environment and climate change is clear and where statistics and studies divided by gender already exist. FAO (UN's Food and Agriculture Organization) describes how recent research links meat consumption to climate change. According to a new FAO report (2006), livestock production places a serious strain on the environment. The report notes that global meat production is expected to more than double from 229 million tons in 1999/2001 to 465 million tons by 2050. The report also states that the number of animals being raised for our consumption threatens the earth's biological diversity. Livestock production accounts for about 70 percent of total farmland and 30 percent of all land areas. This expansion of grasslands for livestock use is the most important contributor to deforestation. Livestock production also bears a large part of the responsibility for human-induced greenhouse gas emissions. In fact, livestock production is the source of 18 percent of all greenhouse gas emissions, a higher share than the total effect of the entire transportation sector.

Gender and dietary patterns

Examining women's and men's food consumption, studies show that the way in which women and men eat is somewhat different.

Tabel B2: Gennemsnitlige indtag af overordnede fødevaregrupper, g/dag, voksne 15-75 år.

	Mænd		Kvinder		Samlet	
	2000/02	2003/06	2000/02	2003/06	2000/02	2003/06
Mælk og mælkeprodukter	359	345	340	304	349	323
Ost og osteprodukter	32	37	26	29	29	33
Korn og brød	244	243	195	187	218	213
Grøntsager (ekskl. kartofler)	154	146	167	167	161	157
Frugt (ekskl. juice)	164	176	212	229	190	204
Kød og kødprodukter	136	139	85	81	109	108
Fisk og fiskeprodukter	21	23	17	19	19	21
Fjerkræ og fjerkræprodukter	28	26	22	21	25	23
Æg og ægprodukter	17	18	15	15	16	17
Fedtstoffer og fede produkter	44	42	30	29	37	35
Sukker og slik*	33	35	35	33	34	34
Drikkevarer ekskl. mælk, juice og saftkonc.	2231	2248	2123	2133	2173	2185
Kartofler	139	130	91	79	113	102
Juice	69	71	72	74	71	73

* ikke sukker fra sodavand, iste m.m.

Figure 1: Women's and men's intake of the main food groups. Source: Dietary habits in Denmark 1995–2006, status and development, with a focus on fruit and greens, and sugar.

Results from recent Scandinavian studies indicate that, on average, women eat greater quantities of fresh fruit, greens, fish and cultured milk

products, compared with men (Fagt et al. 2006). Men's diet, on the other hand, includes more potatoes, meat and margarine. In light of the problem of growing livestock production it may be interesting to analyze how the consumption of animal food products is distributed by gender. A 2006 investigation of dietary behavior documents that men eat far more meat than women. On average, men eat 139 grams of meat and meat products daily, while women only eat 81 grams. Women, on the other hand, eat more cultured milk products. In this way, women and men do play a role in domestic animal production, but their role is different. These differences may produce different carbon emissions and may therefore have different environmental consequences.

Survey studies also show that there is a difference in what issues women and men consider important when shopping for food (Forbugerrederegørelse [Consumer report] 2008, Holm & Jensen 1998). Studies show that women are generally more food conscious than men. Women are more likely than men to read lists of ingredients and make use of the information provided in package contents. A Norwegian study has indicated that among those women and men who read food labeling, there were small but significant differences in terms of the subjects that women and men found important: while women were more likely than men to study the label to find out how many additives, calories, sugar, salt, or allergens a product contained, a slight majority of men (a difference of 4 percentage points) were interested in the fat content. A majority of women wished that existing nutrition facts were more comprehensive and encompassed all ingredients (38 percent of women vs. 21 percent of men), but a slight majority of men (44 percent of men vs. 40 percent of women) reported they would prefer that the nutrition facts would utilize simpler concepts and shorter lists. In other words, there are differences in men's and women's food awareness, which affects how we view sustainable consumption.

In the last few years the demand for sustainable goods has grown. Sustainable products are now popular among consumers. According to a new Danish consumer study, six in 10 consumers (61 percent) said that they had chosen to purchase sustainable products within the last week (Forbugerrederegørelse [Consumer report] 2008). When asked who should be responsible for making sure that products made in Denmark are sustainable, half of respondents said that it was the responsibility of the companies. There were also those who felt that it was the consumers themselves who were responsible (15 percent). The same investigation showed that women were more likely than men to feel that they themselves were responsible for making sure that the goods that are produced are sustainable. While 7 percent of men responded in the affirmative to the question about personal responsibility, 16 percent of women did. It is also more important for women than men that stores are climate friendly: 37 percent of men considered it important or very important compared

with 48 percent of women. There is also a difference in the proportion of female and male consumers who are willing to pay more for climate-friendly goods. This difference seems to be connected to education and age. Of women, 62 percent, and of men, 54 percent said that they would be willing to pay more for sustainable goods. Especially women wanted to see climate labelling on food and everyday items: 81 percent of women but only 67 percent of men expressed this wish. This and other studies indicate that there are differences in the consumption of women and men that produce different emissions into the environment, but more numerous and environmentally oriented studies are needed to evaluate these differences and their consequences for climate change (Institute for Social-Ecological Research).

Visions:

Women and men behave differently as consumers. Any effort to alter behavior patterns must therefore include a gender perspective.

Explanations for gender differences in dietary habits

The reasons for the gender differences in dietary habits are complex, and there are several explanations for why women and men eat differently and assign importance to different considerations when shopping for food (Warde 1997, Lupton 1996, Jensen & Holm 1998). In the West, most people have a wide variety of choices available when shopping for food, and the food choices and preferences they make also signal their identity to others. This is also true of their gender identity – for example, there is the stereotyped image of the “real” man ordering a big side of beef, while the “real” woman orders a salad – but it also has to do with where they are in their life cycle and with their access to economic and cultural capital. Many food choices and preferences are established in early childhood, and oftentimes individuals are not aware of their consumption habits, while some food choices and preferences represent more conscious decisions. Food choices distinguish different groups of people from one another, and they are inscribed on the body, affecting its form, size, and composition.

Transportation

Transportation is one of the sectors that contribute most to the emission of greenhouse gases. In both industrialized and developing countries, there has been an up-surge in transportation-related emissions. The total energy consumption of the transportation sector accounts for 19 percent of the world’s total energy consumption. The United States is responsible for 27 percent and Europe for 21 percent of the world’s total energy consumption (IEA 2005).

Gendered transportation patterns and behavior

When looking at transportation usage it becomes clear that women and men have different travel patterns. This means that we need information about the differences in their travel behaviors in order to target our efforts most effectively to meet existing need and to utilize data to help design a sustainable transportation system. Studies have examined the following questions:

- Travel distance: Men generally travel longer distances than women. Women take trips that are equal or shorter.
- Methods of transportation: Men are more likely than women to drive a car, and women are more likely than men to use public transportation.
- Travel patterns: Men's travel patterns are characterized by travel from home to work. Women are more likely to travel to various destinations, for example, from home to day-care to work to shops, and back to day-care and home.
- Time of day: Men travel most often during peak travel times and for longer distances. Women are more likely to travel outside of peak travel times and to take more trips in their immediate vicinity.
- Possibility of using a car: Men have greater access to cars as a result of their greater economic power and their driver's licenses. This seems to be changing as women are increasingly participating in the labor market, and young women now have driver's licenses and can afford a car, compared with older women.
- Safety: Studies show that there are different needs with regard to transportation safety. As men focus on traffic safety, women are more concerned with personal safety (Co-ordination for Gender Studies in Denmark 2007, Hamilton et al. 2006).

As the graph shows, the choice of method of transportation is determined by gender, but also by urbanity. In addition, there are other variables such as age and labor market position that play a role, painting a more complex picture of how travel patterns are formed.

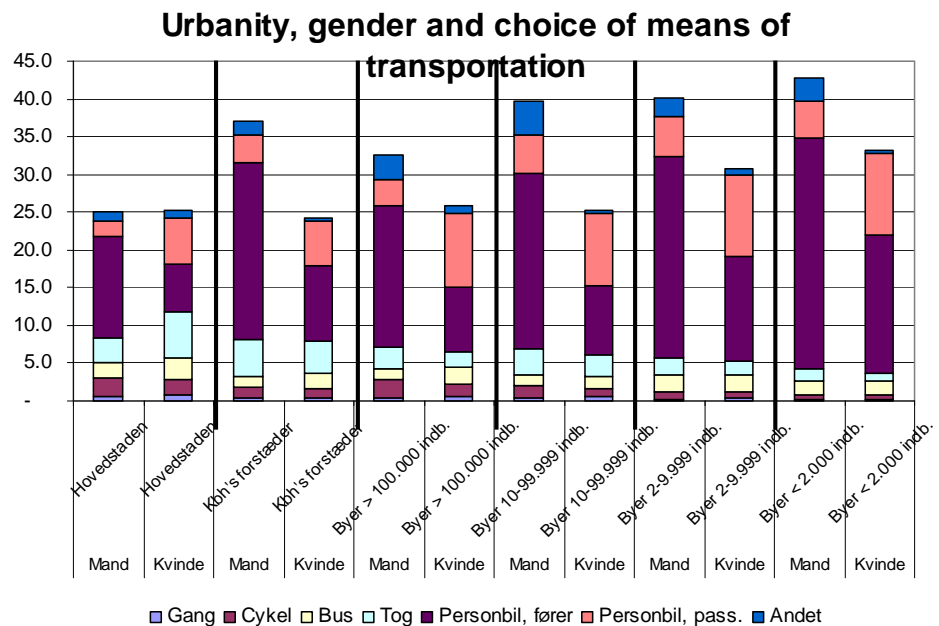


Figure 2: Choice of method of transportation divided by gender and urbanity (Source: Road Directorate, unpublished paper)

Explanations for men's and women's transportation patterns

There are various explanations for why women and men travel differently (Co-ordination for Gender Studies in Denmark 2007; Hamilton et al. 2006). One type of explanation focuses on the structural conditions of women and men in terms of work and home. Size of income and labor market position can help explain their different travel patterns. Studies show that people are likely to travel farther when they occupy a higher position in the labor market, and in this way women's shorter travel distances reflect the segregation of the labor market. This inequality is changing as more women enter the labor market, with younger women now more often having a driver's license and a car at their disposal. Thus, well-educated women as well travel farther than women with lower levels of education. Young and highly educated women nevertheless still drive less than men, but they do use a car more frequently than older women. Men's and women's different way of using the transportation system is also connected to the social division of labor between women and men. Role differences in the home are significant for women's preference to live closer to work. Women bear more of the responsibility for household duties than men, and it is this responsibility that affects their choice of workplaces that are close to home and results in women taking more numerous local trips, compared with men.

Another explanation is spatial and has to do with where workplaces, residential areas, and free-time activities are located and the kinds of transport patterns that their location requires. Studies show that in terms of locations, the labor market is sharply divided by gender, with work-

places that employ mostly men (for example, the financial/white-collar sector) usually situated in city centres, whereas workplaces with predominantly female occupations (schools, kindergartens) are spread throughout suburban areas. This, too, contributes to the different travel patterns of women and men.

A third explanation concerns cultural conditions. Cultural conceptions of cars are bound up with a gendered universe, where control of technology and fascination with speed is associated with masculine competence, while women's relationship with cars arises from use value, safety, and responsibility.

There have been no studies on the different ecological footprints of women and men in terms of transportation choices, but their different transportation behaviors and patterns obviously have an impact on the climate. It is possible to think that, through their different use of transportation, women and men strain the environment differently. A Swedish report concludes that since women travel less than men, they may also cause less transportation-related carbon emissions than men (Johnsson-Latham 2007). This information points to the need to tailor prevention strategies by taking into account women's and men's different travel patterns. This may include strategies that focus more on changing people's behavior than on assigning guilt.

Example:

London's communal transportation system, 'Transport for London', is an example of gender mainstreaming in the transportation system. Wanting to make the transportation system more effective and create a city with space for all inhabitants, 'Transport for London' has launched wide-ranging projects to produce a transportation system that offers users better personal safety, greater flexibility, and better accessibility – economically. The goal of action plans is, among other things, to meet the divergent needs of users and to make sure that the efforts guarantee gender equality and accommodate people of modest economic means. 'Transport for London' has introduced special low-price tickets for families and part-time workers, of whom women comprise the majority. Thus, these groups can better benefit from using public transportation instead of a private car.

1.3.2 Examples from Developing Countries

Climate change is expected to bring more numerous and more intense natural catastrophes in the future, including floods, storms, droughts and other extreme weather events. There is also a gradual changing of the conditions of agricultural production, as rain patterns change and more floods occur. Even though these natural catastrophes take place all over the world, their effects are much more drastic in developing countries

than in industrialized countries. In addition, a greater number of the world's poorest are women, and as a result of their dependence on natural resources and agriculture, women are more powerfully affected by changing weather patterns than men (IPCC 2007).

Women, Men and the Physical Environment

In order to understand the significance of climate change for poor people in developing countries, one must consider the overall conditions in which these populations live. Poor people are more dependent on local natural resources and their own agricultural endeavors in order to secure food for their households. In light of this, it may be useful to examine the information available about the relationship between women, men, and the environment in developing countries.

Since the 1980s, studies have shown that the relationship between the resources, interests, and needs of women and men and the physical environment is not neutral (Dankelman 2002, Skutsch 2002, Shiva 1987). Studies have particularly focused on women in rural villages in developing countries, because they are more directly dependent on natural resources and therefore greatly affected by changes in the environment. In 1985, India's Centre for Science and Environment wrote that no other group is more affected by environmental destruction than poor women in villages. These women must set out farther and farther to obtain the most important daily necessities, including fuel, water, and sustenance. Many other studies have described the different roles of women and men in the administration and use of land, water, energy, and biological diversity. Some studies point out that women play an important role in caring for the environment, thereby securing the survival of not only themselves but also their communities (Shiva 1987). Other studies, however, posit that it is wrong to discuss women as a homogenous group, when there are great economic, cultural, and social differences between women (Dankelman & Davidson 1988). Parameters like social class, family, age, nationality and socio-cultural group affiliation are all important characteristics that differentiate women and that show differences among women are just as important as differences between women and men. While poor women do share some similar features, there are also major differences in the cultural and living conditions of poor people in, for example, Latin America and Asia.

It is therefore necessary to look at the relationship between women, men, and the physical environment. We need to take into account broader power relations and structural inequalities to obtain a better understanding of the question of climate, environment, and gender. Access to and control over natural resources such as land, water, and forests are important indicators of the economic and social status of women and men. The use and administration of resources as well as decision-making about natural resources at the micro, meso, and macro levels are differentiated

by gender (Skutsch 2002, Dankelman 2008). In this report, when we talk about developing countries and poverty, the heterogeneity and the different conditions that affect poor women and men are not captured. It is nevertheless no less important to emphasize the features that different regions do have in common.

Men, Women and Climate Change

According to Denton (2002), women in developing countries are more vulnerable to climate change than men. First and foremost, this is because women are generally poorer than men, and more dependent on primary resources such as fishing and farming. The question of why women are more affected by climate change is, however, not only about access to resources, but also about a gender-based division of labor (Bridge 2008, Dankelman 2002, 2008, WEDO 2008). The characteristics that make women more vulnerable to climate change are the same characteristics that generally depict women in countries with high levels of poverty – including lack of alternative sources of income, care for the elderly and the sick, child care, and so on. Women's work is often related to the physical environment and to natural conditions. It is women in particular, who are engaged in agriculture, and this means that they are more affected by events like drought. It is women in particular, who collect firewood and tend to cattle, and it is women, who fetch water. The increase in extreme weather conditions like storms, floods, and cyclones means that women's work burden becomes heavier, both in terms of the extra work that goes into securing food, but also in terms of cleaning up after disasters, as well as the extra burden of caring for children and the sick following a catastrophe. As climate change is expected to increase levels of illness, the gender roles assigned to women will force them to carry an even greater part of this burden.

There are also many other gender-specific vulnerabilities and responses to climate change (Bridge 2008, Skutsch 2002):

- Men migrate in order to seek alternative income. This splits up families and creates a heavier burden for women.
- Access to resources, especially water and fuel, becomes more difficult, increasing the amount of work that women must do.
- Livestock and agricultural production are affected, which may have a negative impact on incomes. Since women are responsible for food for their households, this translates into extra work for them.
- Water levels are rising, i.e. people in low-lying coastal areas are under threat. This creates the risk of erosion and the danger of sea water entering fresh-water resources. This puts pressure on resources, and the conditions for ensuring household food production are compromised.

- When women's access to resources is diminished as a result of climate change, their informal rights to resources are at risk of being eroded and of disappearing.

The following explains the effects of climate change on three selected areas: agriculture, water, and natural disasters.

Land, Agriculture, and Climate Change

Fact:

Rural women are responsible for half of the world's food production and produce between 60 and 80 percent of the food in most developing countries. Yet, despite their contribution to global food security, women farmers are frequently underestimated and overlooked in development strategies (FAO: <http://www.fao.org/GENDER/en/agri-e.htm>).

Ecosystems and climate are intimately connected, and agricultural production is the economic activity that is most dependent on climate conditions. In this way, developing countries are affected especially hard by climate change, which has an impact on plant growth and production through greater warming effects, changes in rain patterns, increased washing away of soil nutrients as a result of heavy rainfall, increased erosion as a result of stronger winds, and more frequent brushfires in dry regions. Illnesses and pests spread faster (IPCC 2007). Declines in livestock and harvest yields, lower productivity, and lower incomes are consequences of such effects and they affect women in particular. This places a greater burden on their health and gives them less time and fewer opportunities to participate in public life and income-generating activities outside of farming (GenderCC 2008a, Bridge 2008).

Research:

There are many connections between gender and agriculture. In many countries, women's rights to land are limited. Patriarchal customs regulate land ownership and thereby affect control over land and food security. Simultaneously, women make up 51 percent of the labor force in agriculture worldwide, more so in the southern hemisphere. For example, female farm workers and independent farmers comprise 80 percent of the labor force in the agricultural authority in Sub-Saharan Africa. (Source: GenderCC 2008a)

In spite of these conditions, new studies show that women who have been affected by climate change – including unpredictable monsoon patterns,

floods, and long droughts – develop effective coping strategies, for example by adapting their farming practices (Bridge 2008).

Quote:

As we never know when the rain will come, we had to change. I started to change the way I prepare the seedbed so that we don't lose all our crops. I am also using different crops depending on the situation. (Source: Mitchell et al. 2007)

Poor women clearly possess a great deal of knowledge and experience in handling the effects of climate change and a good understanding of the types of interventions that are necessary to secure more sustainable farming practices. This underscores the fact that women and men sometimes have differing but valuable knowledge about the kinds of adaptation measures to undertake in response to climate change. It also indicates a need for more adaptation strategies that can be made use of both women and men in ensuring food security and agricultural productivity.

Water and Climate Change

It is well documented that women and men administer and use water resources in different ways. For example, gender and environmental research have long made note of the fact that women and girls are usually responsible for bringing in water for drinking, cooking, washing, hygiene purposes, and for small livestock and subsistence farming, while men use water for watering and large livestock. These different roles mean that women and men often have different needs and priorities in terms of water use. While this is not new information, it has a new and pressing significance in the context of climate change (Bridge 2008, GenderCC 2008b).

Research:

It is estimated that in 2025, approximately two-thirds of the world's population will experience some difficulty accessing water resources, and that up to one billion will experience a significant shortage of water. Climate change can also lead to more numerous and intense flooding, which can compromise water quality. This will affect women in particular because of their particular role in terms of water usage and their special vulnerability during disasters. (Source: Bridge 2008)

In drought-affected regions that suffer from desertification, women and especially young girls have to fetch water from farther and farther away. Heavy rainfall will increase women's work load, and they will need more

time to gather water for post-flood cleaning and house maintenance. The extra demand on their time will prevent women even more from seeking education or participating in public life. Long distances walked on foot to fetch water also expose women and girls to harassment and rape, particularly in conflict-ridden areas.

Fact:

In the Eastern part of Africa, women sometimes expend 27 percent of their total calorie consumption on fetching water. (GenderCC 2008b)

Studies of public water administration show that the gender dimension is overlooked when debating projects and policies that are based on the participation of the population. Even though women handle most of the household water and therefore have important expertise and experience in water conservation, they are rarely consulted, and their needs are rarely taken into consideration.

Fact:

In Morocco, a World Bank project aimed at supplying water in rural villages succeeded in increasing school attendance among girls by 20 percent over a 4-year period, in part because the girls had to work less to fetch water. (Source: Bridge 2008)

Fact:

In Indonesia, in the four villages in the Aceh Besar district surveyed by Oxfam, only 189 of 676 survivors were female. Male survivors outnumbered female survivors by a ratio of almost 3:1. In four villages in North Aceh district, out of 366 deaths, 284 were females: females accounted for 77 per cent (more than three-quarters) of deaths in these villages. In the worst affected village, Kuala Cangko, for every male who died, four females died — or in other words, 80 per cent of deaths were female. In the Borongan camp, just outside Banda Aceh, a room accommodates 21 widowers who have chosen to live together to cope with the responsibilities of caring for their surviving children. (Oxfam 2005)

Climate-related Catastrophes

Climate change produces more extreme natural conditions, including flooding, storms, and droughts. The situation is expected to get worse and affect developing countries particularly, especially those who for economic or cultural reasons do not have resources to prepare for climate

change. When weather-related disasters affect industrialized countries, including Hurricane Katrina which hit New Orleans in 2005, experiences show that there too, it is the poor who are hit hardest (Bridge 2008, OXFAM 2005, UN/ISDR 2008, GenderCC 2008c).

Natural catastrophes affect women in their role as producers and as those responsible for their household's food, water, fuel, and income, and in their role as caregivers. A recent briefing note from Oxfam estimated that in natural catastrophes the probability of death is 14 times higher for women and children than for men (Oxfam 2005, Kreimer et al. 2000). In the Asian tsunami, the greatest death rates occurred among women and children under 15. Even if the tsunami was not directly connected to climate change, it serves as an important lesson about the different consequences of major catastrophes for people. The reasons are many (Bridge 2008, GenderCC 2008c). Cultural norms are one explanation; for example, norms regarding clothing can restrict women's possibilities of moving fast, while behavior restrictions can prevent them from finding a new place of residence in the absence of the permission of a male relative. This is the case, for example, in rural villages in Bangladesh, where the clothing worn by women prevents them from running or swimming, and where many women cannot leave home without being accompanied by a male family member. Other explanations concern socialization; women are not taught to swim or run to the same extent as men. Finally, a third explanation concerns inadequate warning systems. Warning systems are often oriented toward men's lifestyles and frequently do not take into account the ways and opportunities in which women receive their information. Women's limited access to information means that they are less able to minimize their risks. By taking gender equality considerations into account, it is possible to improve people's survival rates as well as their health.

Example:

It is necessary to develop models for best practices in regions at risk for natural catastrophes. For example in La Masica, Honduras, Hurricane Mitch caused no deaths, because a disaster organization had carried out gender-sensitive training, involved both men and women equally in handling catastrophe-related activities, and because women were responsible for early warnings. This resulted in quick evacuations once the hurricane hit, illustrating that gender-sensitive training can save the lives of both men and women. (Source: Bridge 2008)

After disaster strikes, there are major differences in the ways that women and men are able to cope. Natural catastrophes affect them both, but biological, social, and economic differences influence how they are affected. As a result of women's reproductive function, pregnant and nursing

women are especially vulnerable because of their added need for water and sustenance, and their limited mobility. Women's social role entails that their workload becomes multiplied. The need for care-work increases, as does the need to secure materials for sustenance and to clean up after a disaster. Housework may increase and keep girls out of school. Experience shows that in families, food is distributed unequally, with women and children eating less. These discriminatory practices are reinforced during disasters and harm the health of women and children. There are also examples where a catastrophe has meant that more girls and women have become victims of sexual violence in and outside their homes, especially when families live in temporary housing. The increase in violence is frequently spurred by the loss of control experienced by men during periods following catastrophes, a situation that can become prolonged because of unemployment and compromised incomes. Women's economic position is also affected. Women often work from the home, and when it is destroyed in a natural catastrophe, this removes their access to resources, which can transform their lives.

1.4 Women, Climate Change, and Decision-Making Processes

Experts in the ‘gender and climate’ field have drawn attention to the shortage of women in the climate change debate. The Center for Asia Pacific Women in Politics states that “An overall assessment of the climate change debate to date shows women are patently absent in the decision-making process. Their contributions in environmental policies are largely ignored. Decision-making and policy formulation at environmental levels such as conservation, protection and rehabilitation, and environmental management are predominantly male agenda” (CAPWIP 2008). The debate about climate change is an indicator of how social considerations, such as gender equality, are overlooked, and how it is instead market-driven factors such as technology and economy that dominate.

There are several reasons for ensuring that women are represented in political decision-making processes that concern the climate and the environment:

- **Resources.** This argument refers to the fact that women can have experiences and opportunities that are different from men’s, and can therefore make valuable contributions to finding solutions to society’s problems. Society does not fully utilize the knowledge and experience of its population, if only one gender is represented. This report helps to illustrate that women can have different viewpoints on climate and the environment, and that they can have different kinds of knowledge about the physical environment. It is therefore important to include their perspective in decision-making processes concerning the climate, from international climate negotiations to entirely local decision-making processes, as well as in the administration of natural resources and agriculture.
- **The interest argument.** This refers to the fact that when women are not represented in political decision-making processes, their interests are not being taken into account equally with men’s perspectives. This report helps to see that women and men are often influenced by different economic, social, and political conditions, which indicates that they also at times have different needs and interests with regard to the adaptation policies for addressing climate change. If decision-making processes are dominated by men, there is a danger that this fact is overlooked.
- **Equal opportunities for both genders.** The argument points out that no one should be discriminated on the basis of gender; that all people, regardless of whether they are women or men, must have equal access to power and influence in the decision-making that takes place at the highest levels of society.

These arguments overlap – they are extensions of one another. They spell out why it is important that both genders are represented at all levels, in both public and private decision-making bodies.

In the following, we will look at how women and men are represented in the decision-making processes concerning climate change. First, we will look at representation in international climate negotiations, and then, at two different areas: in industrialized countries, unequal gender representation in the transportation sector, and in the developing countries, national adaptation programs.

1.4.1 Women in International Climate Negotiations

One way to ensure that both women and men have a voice is to ensure equal representation of each gender in international climate negotiations. This is, however, far from being the case currently.

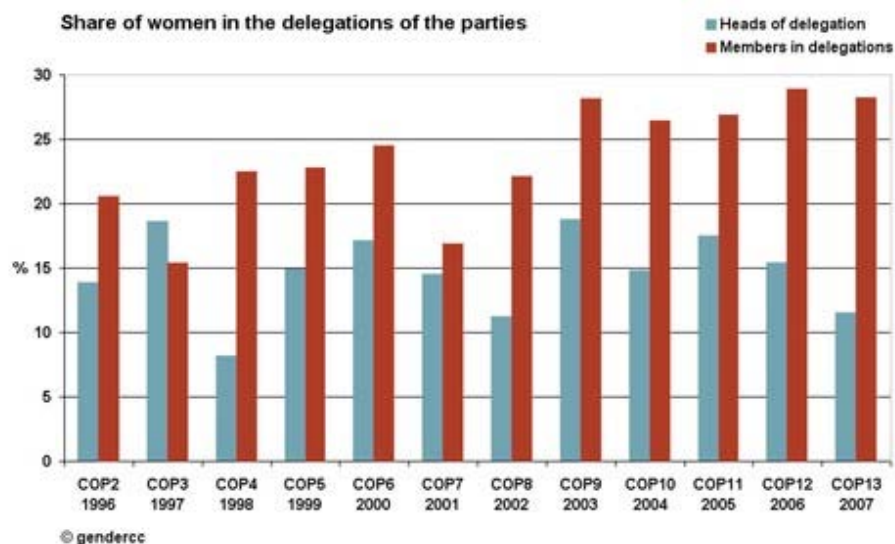


Figure 3: Share of women as heads of delegations, COP2 and COP13 (Source: Rohr 2004/2006, GenderCC).

Government delegations typically consist of senior staff members from ministries, but also from research and industrial entities, as well as other organizations (Rohr 2004/6). A 2007 estimate revealed that the share of female ministers represented at UNFCCC conferences has varied between 15 percent (which was the case at COP9) and 20 percent (for example, at COP6). At the level of heads of delegations, women are even less well represented.

The problem of women's low representation at UN climate conferences is mirrored in trade and industry. These areas are overwhelmingly dominated by men and have the lowest representation of women. Repre-

sensation from civil communities, mostly NGOs working with climate, environment and aid issues, as well as business NGOs (BINGOs), also show a skewed gender balance. From COP2 in 1996 until COP11 in 2005, few women's NGOs have been represented. One reason is perhaps that the debate has been dominated by economic and technological factors, with little attention on social factors such as gender equality and survival – issues that women's NGOs typically work with. Men often dominate the NGOs that work with climate issues, although there are a few with female directors. This is the case, for example, with the Climate Action Network (CAN).

1.4.2 Gender, Climate Change, and Decision-Making Processes in Selected Sectors

Many of the sectors that play an important role in decisions about the climate are strongly male dominated. This is as true in the energy sector and urban and transportation planning as it is in the climate negotiations themselves (Hansson 2007). In the following, two concrete examples will illustrate the imbalance between women's and men's representation at the highest political levels. The examples are from the transportation sector of the industrialized countries and from the national adaptation programs in developing countries.

Democracy and equal representation in the transportation sector

Women's and men's needs and interests in terms of transportation must be taken into account equally, and hence it is necessary to secure their equal representation in leadership and policy. The way things currently stand is that the transportation sector is heavily male dominated (Co-ordination for Gender Studies in Denmark 2007, Carlsson-Kanayama 2008). This holds true both in terms of the transportation sector as a work environment and in terms of the political decision-making connected to it.

Of the members of the EU's European Rail Research Advisory Council, 95 percent are men. Things are only slightly better at the European Road Transport Research Advisory Council, but even there men make up 72 percent of council members (Co-ordination for Gender Studies in Denmark 2007).

At the national level, the picture does not look very different.

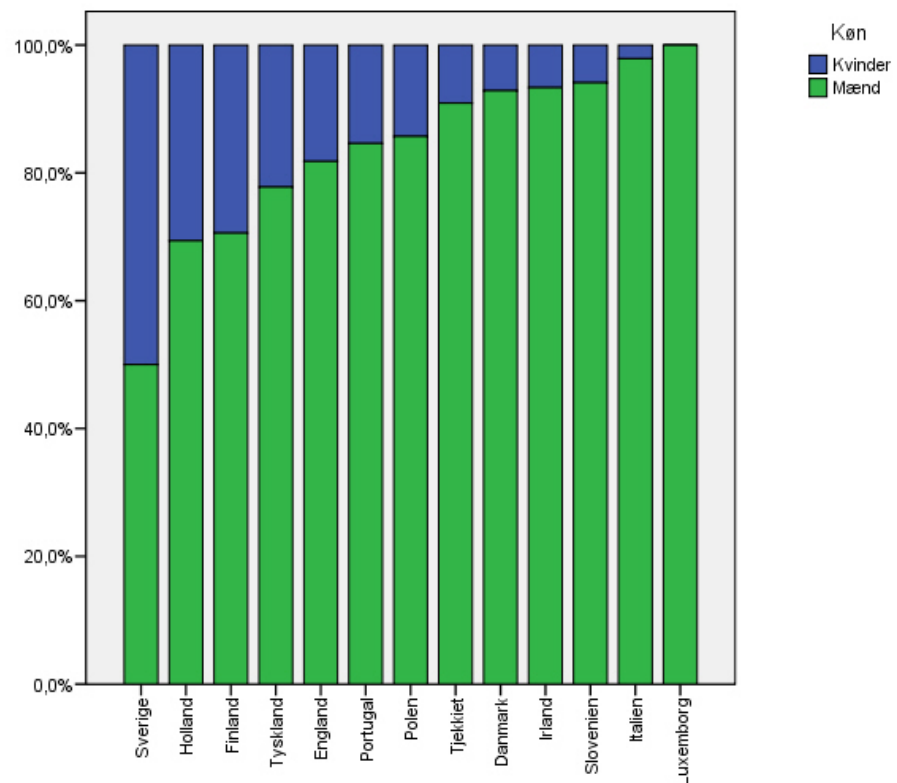


Figure 4: Female and male members in European traffic committees

Source: Co-ordination for Gender Studies in Denmark 2007.

A survey of the gender division in national traffic committees within the EU shows that only Sweden has an equal balance of women and men in its traffic committee. The Danish parliament's traffic committee, for example, only includes 11.8 percent of women, even though women make up 37 percent of parliamentarians. In general, this is the same picture that prevails on all boards, councils and commissions having to do with the transportation sector.

An initiative aiming at equal representation in traffic planning and decision-making bodies is needed. The need stems in part from a democratic wish to include all individuals in society equally and in part from an interest perspective that, through equal representation, ensures that the needs and interests of both women and men are heard. In part, it is simply in the interest of working environments and of society itself to produce more innovation.

Women's Representation in Climate Change Adaptation Activities in Developing Countries

The UN's Climate Change Secretariat has recently launched an initiative to integrate a gender equality perspective into adaptation activities, technology, and finance. The secretariat has requested, among other things,

that participants encourage women to participate at all levels of decision-making relevant to climate change. There are also efforts to integrate a gender equality perspective into the preparations for the so-called NAPAs (National Adaptation Programmes of Action), used to evaluate people's vulnerability to climate change. Adaptation strategies to climate change are crucial for vulnerable populations, and UNFCCC requires that developing countries evaluate their immediate needs in terms of adaptation. National reports from the least developed countries are financed through UNFCCC's financial mechanisms, which prioritize necessary adaptation activities that focus on those sectors and groups that are most vulnerable to climate change. It is nevertheless necessary to strengthen the gender dimension in NAPAs. A study on gender, climate, and security in three developing countries – Bangladesh, Ghana and Senegal – shows that prioritized activities in many NAPA programs do not include women as contributors or as target groups (Dankelman 2008). The study revealed that national climate change debates, structures, and processes do not sufficiently utilize a strategy that focuses on both women and men. It further establishes that efforts are not being made to target adaptation activities sponsored by bilateral and multilateral programs in a way that also caters to women. To improve the integration of the gender dimension in NAPAs, the climate secretariat is working to achieve greater visibility for the gender dimension as an important part of NAPA, as well as preparing means that are earmarked for use in the integration of gender in implementation. In addition, the climate secretariat is working with a number of other initiatives to improve the integration of gender into climate policies, including feasibility studies through the Clean Development Mechanism (CDM) to illustrate how gender can be integrated into CDM processes, and how it is possible to cooperate with relevant organizations to develop a guide book that can be used in the evaluation of gender-specific vulnerabilities to climate change.

1.5 Key Concepts in Gender and Climate Change

1.5.1 Concepts in Gender

Gender: The concept of gender used in this report is that gender is understood as both a social and material construct. Gender as a social construct assigns different qualities and rights to women and men regardless of individual abilities or wishes. This can mean, for example, that women take care of most of the housework, whereas it falls to men to provide for the family. The view of gender has consequences for women's and men's obligations, rights, power, and influence. The power balance between the genders is reflected on all levels of society, where women are often responsible for the home and the household and men are more likely to

participate in decision-making processes in public life. Gender as a material construct acknowledges that women and men also have biological differences that have various consequences. In addition, the material construct viewpoint calls attention to the fact that people have different relationships to the material environment.

Summary:

To facilitate reading, the report uses the expression 'women' regardless of age, ethnicity, class etc. The term 'men' is used similarly.

Gender equality: Gender equality between women and men refers in this report to a situation in which women and men have equal opportunities in all areas of society. In order to achieve equal opportunities for all people it is necessary to incorporate a gender equality perspective into all decision-making processes. It is also important that the interests of women are treated equally with those of men and that both women and men have the same rights.

Gender mainstreaming: Gender mainstreaming is an international gender equality strategy that requires public authorities to take gender into account in their work. Gender mainstreaming should be seen as a method for attaining equal rights for both genders. It entails the integration of a gender equality perspective into all levels of decision-making processes – design, implementation, evaluation, and follow-up – with a focus on creating equality between women and men. The method consists of evaluations of the impact that all decisions have on the lives and status of both women and men. The method also entails taking responsibility for reversing decisions that are shown to be inexpedient. Mainstreaming will foster gender equality in the lives of women and men by creating room for everyone, in organizations and in society as a whole. It is about a process of articulating the common vision of sustainable human development and applying it in real life.

Illustration:

Even when a gender perspective is integrated, this does not automatically mean that it necessarily promotes gender equality. Women and men may instead be discriminated against, for example by working from highly stereotyped conceptions of what each gender is like. An example is a campaign that addresses itself to young men who speed. In order to get them to slow down, the campaign displays topless women standing on street corners holding traffic signs. Someone might say that the campaign has incorporated a gender perspective, but in fact it does not try to promote gender equality and equal opportunities for both genders. Rather, the campaign makes use of traditional conceptions of women and men and thereby merely reproduces our prejudices.

Using these understandings of gender and gender equality we can identify five mechanisms where differences between women and men stand out in terms of climate change:

Power imbalance between women and men. We can say, for example, that men dominate the powerful positions in climate policy and decision-making processes (see Chapter 4).

Differences in earnings and economic resources. On average, women earn less than men and make up a larger proportion of the poor worldwide. In developing countries, poverty has led to a growing number of climate-affected refugees. In industrialized countries, economic resources play a significant role, for example, in the form of transportation that women and men choose (see Chapter 3).

Gendered patterns in the division of labor lead to differences in the effects that climate change brings on the genders and hence to different climate adaptation needs, since women's and men's behavior can have a different climate impact. For example, in developing countries, it is usually women who are responsible for fetching water and fuel. In industrialized countries, men's role as the provider often means that they have to travel farther and less sustainably (see Chapter 3).

Other social and cultural roles. When women and men are trained differently, it can affect their vulnerability to climate change. For example, it has been demonstrated that women's mortality is many times higher than men's in storm flooding because fewer women than men learn to swim (see Chapter 3).

Biological differences. Female and male bodies react differently to, for example, heat. Studies have shown that women are more negatively affected and are more likely to die during heat waves (Hansson 2007).

1.5.2 Concepts in Climate Change

Fact:

Negotiations about climate change utilize concepts such as ‘adaptation’ and ‘mitigation’.

Mitigation: In the context of climate change, seeking human intervention in order to reduce the causes of greenhouse emissions or increasing the confinement of the gases. Examples include: more effective use of fossil fuels, switching to solar and wind energy, improving building insulation, expanding forests which remove carbon dioxide from the atmosphere.

Adaptation: Adjusting natural or human-made systems in order to minimize disasters. Adaptation means adjusting, and has been characterized as changes in “processes or structures in order to temper or delay potential dangers or to benefit from the opportunities associated with climate change”. (Lambroud & Piana 2006)

There are a number of ways to assess greenhouse gas emissions.

Food miles have to do with the food sector and refer to the distance that a particular product has travelled to the store shelf. It is not unusual for a local product to be transported far away for packaging or processing before it is sent back to the country of origin to be sold. Its transportation produces greenhouse gases. Drawbacks to this kind of labelling include, among other things, that the concept of food miles can be used to bolster protectionism and shut out products made in developing countries from Western markets. This can lead to higher prices. Another objection to this type of labelling is that the focus is only limited to transport. For example, imported tomatoes may produce less CO₂ emissions than those grown locally in hothouses. A nuanced analysis of a product’s climate impact requires analyzing the emission of all greenhouse gases produced during its life cycle.

Carbon footprint is another way of labelling food products. The carbon footprint method describes the total emission of greenhouse gases connected to the production and transport of a product from the field to the table. One of the advantages of this method is that it makes it possible for work environments to identify and optimize their energy use, resulting in potential savings. Critics of the method claim that it is much too complicated to calculate the total emission of greenhouse gases for a particular product. It requires gathering a substantial amount of data, which takes time and money. At the same time, it is emphasized that there should be

an internationally accepted standard for calculating emissions, because it is otherwise impossible for consumers to compare different products and choose the one that is most climate friendly. If the labeling only consists of a disclosure of how much CO₂ has been emitted in producing the product, it is difficult for consumers to evaluate whether the emission is high or low.

Fact:

An average person in the United States leaves a 'carbon footprint' of 12.2 hectares (30.15 acres). An average person in Holland leaves a footprint of 8 hectares (19.77 acres). As a comparison, the carbon footprint of the average person in India is 1 hectare (2.47 acres). (Johnsson-Latham 2007)

1.3 Gender and Climate in Brief

Greenhouse gas emissions

Industrialized countries are responsible for most of the greenhouse gas emissions that cause climate change.

- One billion of the world's 6 billion inhabitants consume 75 percent of all energy and account for the majority of all emissions from industry, toxins and consumer goods (Johnsson-Latham 2007).
- Livestock production accounts for 20 percent of total farmland, and is responsible for 18 percent of all greenhouse gas emissions (FAO 2006).
- Transportation accounts for 19 percent of total energy consumption worldwide. The United States is responsible for 27 percent of total energy use in the transportation sector, while the EU is responsible for 21 percent (IEA 2005).

There are differences between women and men in terms of their consumption habits, and it looks like there are also differences in how much CO₂ emissions they are responsible for. More detailed studies are needed to evaluate different types of consumption and emissions.

- Meat consumption: In Denmark, men eat on average 139 grams of meat daily, while women eat 81 grams. Women eat greater quantities of fruit, greens, fish and cultured milk products (Danskerne's kostvaner [Dietary habits in Denmark] 1995 – 2006).
- Transportation patterns: Men in industrialized countries generally travel more than women. Men are more likely to own a private car, whereas women are more likely to use public transportation. It is

estimated, for example, that men are responsible for approximately 75 percent of all driving in Sweden (Johnsson-Latham 2007).

- Attitudinal studies on food, sustainability and transportation show that women are more positively inclined toward environmental/climate considerations in their shopping (Danskernes kostvaner [Dietary habits in Denmark] 1995-2006).

Effects of greenhouse gas emissions

Developing countries are particularly affected by climate change.

- Climate change brings about more extreme natural events, including flooding, storms, drought, heat waves and cold spells, and results in more desertification, increases in ocean water temperatures, and melting icecaps and permafrost. Over the long term, this has important ecological, social, economic, and political consequences that affect, among other things, food security, access to water, forest fires, and changes in disease patterns (IPCC 2007).
- The changes will be most drastic in poor developing countries, where women make up 70 percent of those living below the poverty level. Women are therefore often more vulnerable to climate-related catastrophes than men (Dankelman 2008).
- Climate change increases already existing inequality and reinforces differences between women and men in terms of their vulnerability and ability to cope with climate change (UNDP 2007).
- It is estimated that in 2025, two-thirds of the world's population will have difficulty accessing water resources, but up to 15 percent will experience direct water shortages. In rural villages in developing countries, it is women who are responsible for fetching water for the household. They may be forced to venture farther to find water for cooking, hygiene purposes, and washing (Bridge 2008).
- In natural catastrophes, women make up the majority of fatalities (Oxfam 2005).

Men and women in decision-making processes on climate change

One way to ensure that the expertise, needs, and interests of both women and men are taken into account is to ensure equal representation of both genders in decision-making processes concerning climate change.

- International climate negotiations: The share of female ministers fluctuates between 15 and 20 percent. In the last five years, women's representation in delegations has been around 27 percent. The share of female heads of delegations is less than 20 percent (Source: GenderCC).
- EU's transportation policy: The share of female members of national transportation committees in EU countries varies from 0 to 30 percent.

Sweden is an exception, with approximately 50 percent female representation in its national committee (Co-ordination for Gender Studies in Denmark 2007).

- 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. With regard to local administration of resources, women's opportunities for influence are greatly limited by the fact that women in developing countries often do not have ownership rights to land and thereby lack control over the way that resources are administered (Dankelman 2008).

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2. Nordic Summit Declaration

NORDIC SUMMIT DECLARATION

PARTICIPANTS at the Nordic Summit, held on 2 February 2009 in Copenhagen, drafted a series of concrete recommendations in the area of gender equality, gender, and climate change.

CLIMATE CHANGE is a global problem that affects every person in the world. Participants at the Nordic Summit agreed that global action is needed to solve the problems associated with it.

BUT NOT EVERYONE is affected in the same way. Climate change affects women and men differently, in industrialised as well as developing countries.

AND THERE ARE DIFFERENCES also in how different people themselves affect the environment and climate. Women and men engage in different behaviors that produce a different environmental footprint; therefore, any strategy for a more sustainable society has to incorporate a gender and gender equality perspective.

A GOAL-ORIENTED and effective approach to climate change must originate in the different situations of women and men, and it must ensure that the experience and knowledge of both genders is considered when planning future efforts.

GENDER EQUALITY is a driving force of wellbeing and sustainability. Gender equality and equal opportunities are preconditions for sound economies, social cohesion, and a sustainable approach to climate change.

POLITICIANS, organizations, and individual women and men are encouraged to take responsibility for creating a more equitable and sustainable society.

IN ALL FUTURE operations, participants of the Nordic Summit commit to incorporating a gender and gender equality perspective whenever relevant.

THE PARTICIPANTS, FROM ALL OF THE NORDIC COUNTRIES, were invited personally by the Nordic Council of Ministers and the Nordic Ministers for Gender Equality, and have each contributed to the drafting of these specific recommendations for action.

THIS IS A JOINT-NORDIC contribution that can enhance and inform UN policy on climate change through the integration of a gender equality perspective. It is also intended to generate national, regional, and global debate on gender equality and climate change – among people in every country, but also within the organizations that work with climate issues on a concrete level.

“THERE CAN BE NO SUSTAINABLE DEVELOPMENT WITHOUT AN EQUITABLE DEVELOPMENT; AND THERE CAN BE NO EQUITABLE DEVELOPMENT WITHOUT GENDER EQUALITY”

**NOBEL PEACE PRIZE LAUREATE,
WANGARI MATHAI**

WHY GENDER EQUALITY, GENDER, AND CLIMATE CHANGE?

Women and men affect the environment differently:

In industrialised countries, men generally travel more than women. Men are more likely to have their own car, whereas women use more public transportation. It is estimated, for example, that men are responsible for approximately 75 percent of all car use in Sweden.

Women and men are affected differently by climate change:

Climate change particularly affects poor, developing countries. Women comprise 70 percent of those living below the poverty line. Hence, women are often more vulnerable to climate-related disasters than men. Climate change exacerbates existing inequalities and reinforces differences between women and men in terms of their vulnerability and ability to cope with climate change.

Women and men are unequally represented in decision-making processes concerning climate change:

In international climate talks, the share of participating female ministers has varied from 15 to 20 %. The share of female delegates has been around 27 % over the last five years, while the share of female heads of delegations is less than 20 %.

MAKE EQUALITY A PART OF THE NEW CLIMATE AGREEMENT

01

To make gender equality one of the guiding principles in the negotiation process and integrate it into the new climate treaty

HOW

This recommendation could be presented by the Nordic Council of Ministers for inclusion in the climate negotiations.

WHY

Gender equality will contribute to a more effective solution to urgent climate change adaptation problems; for example, agricultural and water management, which are usually part of women's work in developing countries.

WHO

Individual governments will work actively to draft overarching recommendations for reducing inequality between women and men and for promoting sustainable development.

GREEN PUBLIC GENDER MAINSTREAMING

02

Use gender mainstreaming systematically and proactively in climate and sustainability efforts, in both industrialized and developing countries, and target the challenge to political decision-makers.

HOW

- We need political will and implementation.
- We need political acknowledgement that a gender and gender equality perspective has a role in everything that people do.

The work can be implemented concretely by appointing people who are experts on gender issues. Working together with climate experts, they can operationalize the field and require that municipalities do the same.

We can call for gender-mainstreamed CO₂ balance sheets from states/regions/municipalities, with concrete action plans for follow-up.

WHY

We need to raise awareness about the gender and climate dimensions, and their interconnectedness. This process must take into account the opportunities and interests of both men and women, so that we are able to find new, sustainable solutions. The aim is to create a gender-infused operating foundation, by subjecting existing and future efforts to a number of gender equality controls.

WHO

Politicians, government leaders, municipalities, and regions.

KEY TO SUSTAINABLE INNOVATION

03

Investments in gender equality are the driving force for innovation and sustainable development.

HOW

Launch initiatives to gender-mainstream financing mechanisms and national budgets.

First steps:

- Include the recommendation during preparations for and during COP15.
- Have corporations include it in the Global Compact.
- Have corporations and governments commit to implement the goals that are set.
- Men and women tell success stories and show commitment.

WHY

We need the talents and resources of everyone. Men and women think in different ways and contribute differently to solutions. In order to ensure this diversity, men and women must have equal opportunities to influence and benefit from the investments that are made to address climate change (adaptation/mitigation). This process will make men and women equal and full-fledged collaborative partners and citizens.

WHO

Nordic Council of Ministers, governments, politicians, (Climate Ministers), NGOs, individuals, companies (boards of management), leaders, collaborative partners

They will be anchored through:

- UNFCCC (conventions, implementation of financing mechanisms)
- Global Compact – CSR initiative; section on sustainability (including the issues of gender equality, diversity, and innovation)
- Governments and corporations

MONEY FOLLOWS THE INDIVIDUAL MAN AND WOMAN

04

Include sustainable gender equality in the financing of the new climate convention and in aid policy.

HOW

The Nordic Ministers for Climate Issues will discuss the recommendation and take it up in the negotiations preceding COP15. This will also generate greater knowledge on gender and climate issues. Follow-up will take place through monitoring indicators.

WHY

Efforts to address climate change needs to be made more effective and goal-oriented. This can be done by ensuring that project financing and other investments support sustainable development and promote gender equality. The project will be reinforced through ensuring balanced gender representation in decision-making processes.

WHO

Organizations and recipients of project funding and investments.

NORDIC AID WITH A DOUBLE PAY-OFF

05

The Nordic countries are engaged in creating a distinct aid profile in the context of gender equality and climate change. They will make sure that a conspicuous percentage of development aid is earmarked for gender-responsive projects in the context of climate change.

HOW

Financing can occur through the BNP of donor countries; “X percent” of funds can be earmarked for global, gender-responsive, and climate change-related projects.

WHY

- We are undertaking an investment that brings double the results.
- We are supporting green and gender-responsive thinking in global project development.

WHO

Governments/states, Ministers, NGOs, and the private sector.
They will be anchored through the climate change meeting in Copenhagen 2009.

EQUAL ACCESS FOR WOMEN AND MEN

06

Ensure equal access to sustainable technology for both women and men.

HOW

Legislation is fundamentally important here. Women must have the same access as men to ownership, loans, education, etc. Many cultural barriers also need to be broken down. We acknowledge that the steps to be taken may depend on local conditions.

WHY

Equal access to technologies that can reduce greenhouse gas emissions is a basic right of both women and men. From now on, women will not access a particular technology through men. This right will bring society-wide, equal development on our way to a carbon-neutral society.

It requires that men step back and allow women to step forth. Accordingly, women need to take greater responsibility for their new position.

WHO

International, national, regional, local decision-makers. NGOs, development institutions, local. Can go through local Agenda 21 divisions, women’s groups. New structures may also be created.

USER DRIVEN INNOVATION

07

Development of sustainable technology (research and innovation) will incorporate the perspectives of both women and men in terms of needs and use.

For example: Second-generation bio-fuels from agricultural crop by-products, creating local income and attractive jobs for women.

Local development of cleaner technologies for cooking, to reduce deforestation and local air pollution.

HOW

A crucial step in the development process is to involve the users (both women and men) in a dialogue on and in the testing of new technologies. This can be supported, for example, through local pilot projects, capacity building, and Master's/PhD programs. Green innovation funds must take into consideration in all appropriations the potential benefits in terms of gender and localities. The first step can be to propose the establishment of a green innovation fund at the COP15.

WHY

Technological development will ensure local participation, incorporate local experiences, and provide income development for both women and men, in order to ensure effective and sustainable use of technology.

Both parties can benefit from increased income. Women will have an opportunity to use technology in their daily lives, which will bring added benefits to 2015 goals (income, education, gender equality, sustainability) and regional development goals within, for example, the EU. The primary users of a technology will have a role in its development and responsibility for its use.

WHO

Researchers, technological companies, end-users, national governments (research, innovation, financing), an international organization. Anchoring through all stakeholders, through specific development projects. The fund will operate in the context of an international organization, such as UNFCCC.

WOMEN AS ROLEMODELS AND CHANGE AGENTS

08

Both women and men will be utilized in the implementation of sustainable technologies. But we have to acknowledge their different opportunities in terms of innovation processes and use.

HOW

It is important to have the involvement of both women and men during the entire process – from needs/use, to development and implementation. As an example, traditional African farming is often in the hands of women.

It is essential to have a woman as role model when implementing new, sustainable technologies. The first step is to secure funds for projects that involve women's potential as agents for change.

WHY

Taking gender differences into consideration will produce maximum benefits from technology and improve the living conditions of both women and men. This is also true in communicating at an individual level with women or men.

WHO

- The end-users of sustainable technologies (women as well as men)
- Organizations and politicians regarding prioritization
- Companies that produce sustainable technology

Used wherever there is a presence of female “agents for change”.

NEW TECHNOLOGIES – FOR BOTH MEN AND WOMEN

09

Technology, innovation, and design must incorporate a climate change, gender, and gender equality perspective. We must utilize women's and men's different opportunities, knowledge, and competence in technological development and implementation.

HOW

- Official climate change development activities need to incorporate a gender equality perspective.
- Official climate change adaptation measures should be checked for their gender equality impacts.
- Private companies should be challenged to collaborate with gender researchers and others to increase women's interest in traditional energy and climate products, which have so far mostly been in men's sphere of interest.

WHY

Women bring important knowledge to innovation and design processes.

We have many climate-related technologies that have not been utilized sufficiently widely. For example, low-energy products, alternative energy sources (wind and water power), and building insulation. A higher degree of user adaptation – here, gender adaptation – can promote environmentally friendly uses of technology.

WHO

Public and private companies and researchers.

CARBON COST MATRIX

10

To internalize considerations regarding CO₂-impact and gender equality in the metrics used for organizational decision-making, especially on cost.

Examples: Car acquisitions in municipalities: Apply total cost of ownership criterion, instead of simple list price, to reflect that electric vehicles (at least for now) are more costly to buy, but much cheaper to drive per mile/kilometer. As a supporting benefit, electric vehicles appeal more to women than men and facilitate increased flexibility for women in the labor market.

HOW

The initiative could come from the central government or from regional organizations. The original model could be developed by the central government. A subsidy program from the government could be created to cover the costs for organizations that adapt the model according to its own needs.

WHY

In Danish municipalities it is important to create systems that allow budgeting according to life-cycle considerations, as opposed to one-year cash-flow impact. The effect on men/women depends on the actual choice of cars, but in any case it would be considerable, in as much as many cars are driven by home-care personnel, who are mostly women.

WHO

Start with the Ministry of Finance and then work outwards, horizontally and vertically, to all other organizations, to the extent that this otherwise deviates from standard procedure.

PUBLIC FRONTRUNNER

11

The public sectors of industrialized countries must show the way in CO₂-reductions.

HOW

- Use financial instruments (tax and VAT) to reward and punish institutions, companies, and individuals to stimulate methods that are more CO₂-friendly.
- Create targets and CO₂-quotas for public expenditures, for example: green cars, green food, green investments, new buildings, and quotas for air travel.

Gather data in order to map out the targets that work best for carbon scoring and the field of gender equality. A form for a “CO₂-price guarantee” will be developed for use from now on. It will ensure that the public sphere takes the lead at all times and applies best practices in CO₂-reducing purchases, investments, and choices.

WHY

The public sector has the size and economic might to create the necessary market and thereby create and influence demand. When products and services are available and can be purchased, it will set a trend. At the same time, this will “de-gender” the debate so that it is no longer a question of men and women, but of what is the right thing to do – regardless of gender.

WHO

Governments, politicians at all levels, and the public sector.

WOMEN AND MEN'S CARBON FOOTPRINT – A TOOL FOR DEVELOPMENT

12

Create a specific knowledge base on the relationships between:

- 1 Consumption patterns
- 2 Gender
- 3 Emission of greenhouse gases
- 4 Knowledge level
- 5 Decision-making competence

HOW

Carry out a quick research project to provide an overview of existing data and produce the data that is still missing.

WHY

We know that men and women consume differently. However, we need a better and more precise basis for decision-making in terms of the policy instruments that affect household greenhouse gas emissions. These include factors such as various fees, legislation, state investments, planning, and campaigns.

WHO

The Nordic Council of Ministers in cooperation with professionally qualified institutions working with the issues of gender, climate change, household consumption and behavior, and policy instruments.

COMMUNICATION THROUGH THE GOOD EXAMPLE

13

Devise a communications strategy to offer various examples of gender and climate change adaptation in water and agricultural management.

HOW

The Nordic Council of Ministers will develop climate scenarios with concrete examples of why gender equality is a necessary precondition for adaptive measures.

The examples can provide the basis for communicating solutions that can then be integrated into national adaptation strategies.

WHY

There is not enough information about the significance of women in climate change adaptation. Such knowledge can contribute to more effective adaptation measures.

WHO

Nordic Council of Ministers

INVOLVE BOTH WOMEN AND MEN LOCALLY

14

Ensure that the local knowledge, experience, and needs of both genders are taken into account in planning all interventions and political decision-making processes in the context of adaptation.

HOW

The appeal can be addressed to national governments, donors, NGOs, corporations, etc. The appeal can be preceded by disseminating information about climate change and its consequences for local areas. The first step is to lay down the demand of the active integration of both genders in national strategies for climate change adaptation.

WHY

Both genders need to be actively involved in taking responsibility for climate change adaptation. When both genders are making decisions that originate in their own realities, needs, and experiences, we increase the likelihood of creating more effective and sustainable solutions that benefit larger parts of the population. Everyone who is affected by climate change must contribute their knowledge and needs when solutions for adaptation are being created, and women must contribute to all decisions equally with men.

WHO

Corporations, organizations, local population in all age groups.

MORE WOMEN IN DECISION MAKING!

15

In 2014, the boards and top management of public and private companies must have a division of men and women that is at least 60 – 40. All committees at the local, regional, and national level need to set a good example.

HOW

- Realize recommendations through the EU and through national legislation.
- The Ministers for Gender Equality, Environment and Climate agree on a joint initiative.
- Have major national energy companies show the way!

WHY

The reduction of climate-affecting greenhouse gases is a global challenge. To meet it, we need a large degree of innovation, competence, the backing of our populations, as well as willpower. We will need to make use of all the resources that society has to offer. Since women and men have different experiences, both must be involved in the decisions that are made. Women and men must have equal responsibility for the development of our future society.

WHO

- Corporations, politicians, NGOs, and users are the most important stakeholders.
 - The Nordic Council of Ministers will make sure that the recommendations are taken forward to the politicians of each country as well as to international organizations.
-

THE NORDIC SUMMIT DECLARATION WAS CREATED BY



norden

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