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Engendering climate change: ongoing strategies, opportunities and challenges

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**Engendering Climate Change :
Ongoing Strategies, Opportunities and Challenges**

Case Study : Household Energy in Developing Countries



Ségolène Martin

Grenoble

2011

Paper submitted for the Masters Degree "International Organization, IGO, NGO"

Institut d'Etudes Politiques de Grenoble – B.P 48 – 38040 Grenoble cedex 9

Picture : Gaia Association, 2010



DISSERTATION

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The analysis has been undertaken during the internship at : Gaia Association, Ethiopia under the direction of the intership supervisor : Wubshet Tadele, Acting Director, and Stephane Labranche, thesis supervisor, Political Science professor, IEPG

Ce travail a été effectué durant le stage à : Gaia Association, Ethiopie, sous la direction du tuteur professionnel : Wubshet Tadele, Directeur, et de : Stephane Labranche, directeur de mémoire, Stéphane La Branche, chercheur-enseignant associé, Pacte de Grenoble, Titulaire Chaire Planète Energie Climat, à l'Institut d'études Politiques de Grenoble.

The analysis expresses the personnel opinion of its author and cannot be attributed to the organisation Gaia Association where the internship took place.

Cette analyse ne représente que l'opinion personnelle de son auteur et ne peut en aucun cas être attribuée à Gaia Association où le stage a eu lieu.

Abstract

The effects of climate change vary among regions, between different generations, income groups and occupations as well as between women and men. Developing countries and people living in poverty are likely to experience significantly different impacts. The impacts of climate change are not gender neutral. Women form the most important share of the poor all over the world. They are highly dependent on the availability of natural resources for their livelihood, because of their responsibility to secure water, food and energy for cooking and heating. The purpose of this study is to investigate gender considerations change in mitigation and adaptation to climate change projects. Considering the disproportional vulnerability of women to global warming, organizations seeking gender equality seized the climate change issue. They set up different strategies to use climate change as a way to obtain support and funds. Climate change has become an opportunity for the fight for women's rights. This research analyzes the opportunities, strategies and challenges of integrating gender into the climate change issue. This research is conducted after an internship at Gaia Association, which seeks to provide clean-cooking stoves for Ethiopian households. The research is then illustrated by the household energy crisis issue.

Résumé

Les effets du changement climatique varient selon les régions, les différentes générations, groupes sociaux mais aussi entre hommes et femmes. Sur le plan du genre, les impacts du changement climatique sont perçus différemment. Les pays en développement ainsi que les pauvres sont susceptibles d'éprouver des conséquences plus significatives. Les femmes constituent la majeure partie des pauvres dans tous les pays du monde. Étant donné leur responsabilité de garantir la présence d'eau, de nourriture et d'énergie pour leur foyer, elles sont disproportionnellement dépendantes de l'état des ressources naturelles pour leur subsistance. Ce travail a pour but d'examiner les modifications au sein des projets d'adaptation ou d'atténuation du changement climatique sur le plan du genre. Considérant l'extrême vulnérabilité des femmes au réchauffement climatique, les organisations se battant pour l'égalité des genres ont du saisir le thème du changement climatique. Elles ont mis en place différentes stratégies afin que le débat autour du changement climatique devienne un moyen d'obtenir du soutien et des fonds. Le changement climatique est alors devenu une opportunité pour le combat des droits des femmes que beaucoup d'organisations ont fait le choix de saisir, de diverses manières possibles. Ce travail revient sur les opportunités, stratégies et les défis de l'intégration de la problématique du genre au débat du changement climatique. Ce travail a été conduit après un stage à Gaia Association en Éthiopie qui cherche à promouvoir l'utilisation de foyers améliorés dans les ménages. La question particulière de l'énergie domestique servira donc d'illustration à cette argumentation.

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*“When drought parches wells and streams,
someone must carry water.*

*When storms bring devastation
and disease, someone has to nurse the sick.
Climate change hits hardest on the planet's
vulnerable edges.*

*If women hold up half the sky, what do we do when it
seems the sky is falling?”*

Barbara Kingslover,
Ripple Effect Images Contributing Writer¹

¹ *Ripple Effect Images is a team of journalists dedicated to documenting the plight of poor women and girls around the world, and highlighting the programs that are helping to empower them, especially as they deal with the devastating effects of climate change. Working closely with scientists and NGOs to identify both the needs and the innovative programs that are helping women and girls, Ripple Effect journalists make strategic trips to document these programs. They then donate their photographs, video and stories. Website <http://rippleeffectimages.org/>*

ACRONYMS

CEDAW : Committee on the Elimination of Discrimination against Women

CIF : Climate Investment Funds

COP : Conference of Parties

DFID : UK Aid from the Department for International Development

GEF : Global Environment Facility

GGCA : Global Gender and Climate Alliance

IAP : Indoor Air Pollution

IFPRI : International Food Policy Research Institute

IFRC : International Federation of Red Cross and Red Crescent Societies

IPCC : International Panel on Climate Change

IUCN : International Union for the Conservation of Nature

MDG : Millenium Development Goal

NGO : Non-Governmental Organization

NWMLE : Network of Women Ministers and Leaders for Environment

PAI : Population Action International

SEWA : Self Employed Women's Association

UNDP : United Nations Development Programme

UNEP : United Nations Environment Programme

UNFCCC : United Nations Framework Convention on Climate Change

UNFPA : United Nations Population Fund

UNHCR : United Nations High Commisser for Refugees

UNISDR : United Nations International Strategy for Risk Reduction

WDF : Women Delegates Fund

WECF : Women in Europe for a Common Future

WEDO : Women's Environment and Development Organization

WHO : World Health Organization

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INTRODUCTION

"In the 1991 cyclone disasters that killed 140 000 in Bangladesh, 90% of victims were women²". While disasters are a misfortune for everyone, natural disasters on average kill more women than men, or kill women at a younger age than men. According to most experts, climate change is the reason for the ever larger number and greater impact of natural disasters³. Globally, the number of reported weather-related natural disasters has more than tripled since the 1960s. It has been demonstrated already that not all countries are affected equally by climate change induced by natural catastrophes. Furthermore, climate change has also affected women and men differently through direct and indirect consequences.

In a draft paper untitled *Gender, Climate Change and Health*, published in 2011, the World Health Organization (WHO) identifies the health, human and social consequences of climate change from a gender perspective. Women and girls are confronted with a higher risk of sexual violence, sexual exploitation and abuse, trafficking, and domestic violence during natural disasters. During periods of droughts, women are more affected by nutritional deficiencies because of their particular nutritional needs, especially when they are pregnant or breastfeeding. Some cultures also have household food hierarchies. Moreover, women as the ones in charge of collecting water are confronted with water sources moving further away after each drought. Indeed, in most developing countries, women bear the majority of the energy household responsibility. In Africa, women and girls spend already long hours every day collecting wood, agricultural residues and dung to use as fuels for cooking. Because of droughts and deforestation, the lack of fuels will increase further and, consequently, the women's burden. Therefore, they are highly concerned with the mitigation of, or rather with the adaptation to climate change. The household energy issue connects the topics of women empowerment, public health and environment. Today, many organizations ask for gender mainstreaming in their response activities to climate change.

During my internship at Gaia Association in Addis Ababa, Ethiopia, my attention was raised towards the household energy issue, which is especially problematic in developing countries, but mostly ignored in industrialized states. Indeed, the issues of drought and starvation are more

2 Gender, climate change and health, WHO, 2011. Available online. <http://www.who.int/globalchange/GenderClimateChangeHealthfinal.pdf>

3 Please see *More natural disasters due to climate change?*, in Deutsche Welle, 25/08/2009. Online. <http://www.dw-world.de/dw/article/0,,4598063,00.html>

documented that the household energy ones, even though fuel is an essential part of the cooking process. All over the world women are in charge of cooking and, thus, bringing home the needed energy. In many countries it means that they have to walk for hours to collect firewood and this collection also increases deforestation. Therefore, the issue of household cooking energy in developing countries links the gender issue with environmental problems.

As climate change is becoming a major issue in development work and debate, I realized that it should be an opportunity for organizations promoting women empowerment -especially through household energy-, crucial topic for the future of our environment. Moreover, due to rising awareness about climate change, aid organizations implementing projects directed to women, and more especially promoting cleaner and safer household cooking ways, seem to benefit from a “*window of opportunity*” : these international organizations and Non-Governmental Organizations (NGOs) have to find different ways to deal with the “*emerging*” issue of climate change.

Gaia Association

Gaia⁴ Association in Ethiopia was founded in 2005. It receives strong support and help from “*Project Gaia*”, its related US-based association, from Gettysburg, Washington State. Project Gaia Inc. is a nonprofit organization, which promotes clean-cooking fuels, particularly alcohol cooking stoves, for those living in poverty. In 2005, Project Gaia began a pilot study of a “*CleanCook stove*” in different urban and rural places in Ethiopia. Based on the success of the pilot study, Project Gaia Ethiopia was founded as a research project by the Shell Foundation in order to address household energy issues and promote clean, safe, sustainable and renewable energy for cooking. It operates in Brazil, Ethiopia, Nigeria, and Haiti. It is also involved in projects in Madagascar and Kenya, and has completed studies in South Africa and Malawi. I interned at Gaia Association for five months in 2011 as my graduate internship. During these months, I assisted the project coordinators with their tasks.

Today, 25 people work for Gaia in Ethiopia, either in the main office in Addis Ababa or in the sub-offices in the refugee camps. They all are Ethiopian nationals, except for foreign interns, consultants and refugees hired at the camps. Their core projects aim to develop responsible and sustainable household cooking. They are mainly promoting the CleanCook stove, an alcohol stove

⁴ *Gaia is the name of the ancient Greek goddess of the Earth. Nowadays, it is reviving to refer to the hypothesis that the whole biosphere may be alive. The different forms of the Earth would themselves be responsible for regulating the conditions that make life on the planet possible (James Lovelock and Lynn Margulis).*

by Dometic⁵. Gaia Association received the Ashden Award in 2008⁶, which grants green energy projects. In 2009, it was granted an Energy Globe award for its project “*Improving Indoor Air Quality by Installing Ethanol Fuelled Cooking Stoves in UNHCR Teferiber Refugee camp, Eastern Ethiopia*”. Since 2005, Gaia Association has been working in the energy sector by introducing locally produced ethanol fuel paired with the appropriate stove technology to Ethiopian households and refugee camps as an alternative to existing traditional cooking fuels and technologies.

Clean Cooking in the refugee camps

Providing clean-burning stoves in Somali refugee camps is the most important project of Gaia Association today. Since 2005, Gaia Association has offered the opportunity to cook with a clean-burning ethanol stove to more than 4000 refugee families. In the three UNHCR camps in Eastern Ethiopia -Kebribeyah, Awbere and Shedere- the indoor air quality is among the worst ever recorded in the world. Moreover, the use of cooking energy in the camps is in crisis which jeopardize environmental conditions in the regions. Indeed, they are situated in an extremely arid and deforested area, which makes fuelwood collection difficult and laborious, and leads to environmental stress and tensions between the communities.

Since its implementation, Gaia Association has been working in partnership with the United Nations High Commissioner for Refugees-Regional Liaison Office (UNHCR) and the Ethiopian Administration for Refugees and Returnees Affairs (ARRA) in order to provide Somali refugee families in Eastern Ethiopia with the ethanol-fuelled CleanCook stove (CC stove). In May 2009, Gaia faced an ethanol supply interruption and was forced to switch to an emergency response programme of lower quality, which included expensive kerosene fuel⁷ and the provision of kerosene stoves in the camps. The ethanol supply interruption was due to the government’s high demand for ethanol blending with petroleum in order to reduce government spending in high foreign exchange demanding petroleum. In April 2011, however, Gaia Association recommenced ethanol provision in Kebribeyah and Awbare UNHCR refugee camps. It received 700,000 liters of ethanol from Methara distillery.

The introduction of clean cooking technology has replaced the use of fuelwood and kerosene for cooking among participating households, a change which has brought far-reaching benefits to these families, especially for women and children who usually bear the burden of collecting fuel and cooking.

5 Appendix 1 & 2

6 Please see the Ashden Award website <http://www.ashdenawards.org/winners/gaia08>

7 In two years, the price of kerosene escalated by 155%, *Ethiopian petroleum enterprise*

Since ethanol burns cleanly and without smoke, the introduction of the CC stove and ethanol has removed smoke from the cooking shelters associated with refugee households, and has thus improved the health of families and especially of women and children. Refugees report a reduction in symptoms such as coughing, wheezing, backache and sore eyes. Studies led by the WHO indicate that household air pollution is a major risk factor for many illnesses such as chronic respiratory disease among adults, pneumonia among children, tuberculosis, asthma, cataracts, low birth weight and prenatal mortality⁸.

Women using the CC stove no longer need to gather fuelwood, a risky activity involving having to walk for up to eight hours over rough terrain and returning with heavy burden. The exhaustion caused by the collection of fuelwood often leaves women vulnerable to injury, assault and rape. The significant time saved by not having to gather fuelwood is used for more productive activities such as childcare, education and in some cases income generation. Girls can also attend school more frequently.

Confrontation with local communities has been reduced and women and girls using the CleanCook stove report that they feel safer : by easing the pressure on already scarce fuel wood resources, the CC stove and ethanol have reduced tensions between the refugee and the settled communities who compete for the natural resources in this arid and deforested area.

Furthermore, the establishment of ethanol as the main energy source represents an improvement from kerosene fuel and stoves. Kerosene stoves are dangerous, especially when operated in the traditional homes of Somali refugees (small tukuls). Because of being pressurized, kerosene stoves are prone to spills and explosions. They are often made of cheap materials, causing the stove body and combustion chamber to deteriorate quickly. The CleanCook stove, however, is very safe. Thanks to its fuel canister made of a unique ceramic fiber, ethanol cannot spill, and since it is not pressurized, there is no risk of explosion.

UNHCR-Kenya recently asked Gaia Association to be a consultant in a similar project in Dadaab Refugee camp, based on the success of this technology in Ethiopia. In August 2011, Wubshet Tadele, director of Gaia Association, conducted trainings for UNDP, Practical Action and UNHCR staff in Dadaab refugee camp. Moreover, UNHCR-Ethiopia hopes to benefit from Gaia's ethanol micro-distillery projects to start its own production in the camps and thereby have more security and flexibility.

⁸ Health Impacts of Indoor Air Pollution, WHO, http://www.who.int/indoorair/health_impacts/en/

The importance of a safe and clean household cooking in the context of climate change

As in many other developing countries, 94.7% of the total energy supply in Ethiopia is based on biomass (World Bank, 2001). The use of low-grade energy for household use cause rapid deforestation and environmental degradation, while placing a burden on women and children. Worldwide, Ethiopia has the third largest consumption of traditional fuel, which is combined with the habit of burning fuelwood in the traditional three stone fire⁹.

The energy sector in Ethiopia is characterized by the predominance of the household sector, accounting for 89% of the gross energy consumption in 2006. Domestic energy requirements are mostly met with wood, animal dung and agricultural residues. About 81% of the estimated 16 million households use firewood, 11.5% cook with leaves and dung cakes and only 2.4% use kerosene for cooking¹⁰. This dependence on natural resources is expected to continue in the foreseeable future.

The consequences of the prevailing energy supply and consumption pattern include a lack of human workforce for productive work due to the time spent on collecting firewood. Over 70% of the Ethiopian households collect firewood and about 25% cover a distance of at least 5 kilometres. Many children, especially girls, are withdrawn from school to attend domestic chores related to biomass use, as a consequence facing a low literacy rate and little economic opportunities. Futhermore, the exposure to indoor air pollution from solid fuels is a reason for premature deaths. In Ethiopia, 56,460 deaths per year are directly attributable to indoor air pollution due to the use of solid fuels, more than 90% of them being children under five years of age. The use of biomass fuels also contributes to deforestation and general environmental degradation. With the decline of biomass resource availability, the livelihood of millions of people depending on the biomass energy value chain is threatened.

Environmental concerns

Unsustainable use of firewood and treatment of charcoal contributes to the degradation of the local environment. The smoke from a huge amount of inefficient places has a tremendous effect on global warming. While the traditional household stoves are rich in carbon and burn inefficiently, new stoves are characterized by a very clean burning mechanism and the minimization of carbon

⁹ About 80 percent of the population still uses traditional three-stone fires to prepare meals, a highly inefficient and polluting method of cooking. It uses three times more fuel than an improved stove. Only one pot can be heatend at the same time.

¹⁰ Ethiopian Central Statistic Authority

emissions and green house gases. The use of traditional biomasses for cooking also contributes to rapid deforestation as people increasingly clear forests, and thereby allowing even more greenhouse gases to be emitted into the atmosphere. The forest cover in Ethiopia has declined from 35% in the early 20th century to less than 3% today¹¹.

For example, prior to the introduction of the CC stove and ethanol, households in the Kebribeyah and Awbare refugee camps had been using an average of 2012 kg of firewood for cooking and 1677 kg for baking per year¹². It means that 6,640,200 kg of wood were cut down of the forest annually. The region around the Kebribeyah camp is deforested at 99% and therefore, exposed to the risk of desertification. More generally, Ethiopia lost 18,8% of its forest cover (2818000 ha) between 1990 and 2010¹³. The introduction of the CC stove and ethanol fuel has reduced or eliminated the need for firewood, charcoal and kerosene, an outcome which has had a positive impact on the natural environment.

Inefficient cookstoves contribute to climate change through the emission of greenhouse gases such as carbon dioxide and methane, and aerosols such as black carbon. Black carbon or soot is thought to be the second biggest contributor to global warming after CO₂. Recent studies estimate that soot is responsible for 18% to 40% of the global warming and 30% of arctic melting. Black carbon is said to be controlled by switching to cleaner fuels and stoves, probably the quickest way to slow global warming¹⁴. According to International Planet on Climate Change (IPCC) approved methodologies and fuel displacement rates obtained in Ethiopia, the use of a CleanCook stove instead of a firewood stove will save 6.8 Mt of CO₂ per year, assuming one liter of ethanol -equal to three cooked meals- displaces 10 kg of wood. The CC stove saves 0.95 Mt of CO_{2p} per year when displacing a kerosene stove, with a displacement rate of one liter ethanol to one liter kerosene (Stockholm Environment Institute, 2011).

Women empowerment

The use of clean-burning stoves reduces the burden of women and children who spend a lot of time in fuel wood collection, it also increases girls' school enrollment, due to the absence of firewood collection. With respect to health effects, it reduces indoor air pollution and its related adverse health impacts on women and children. Women of the refugee camps in Ethiopia have to

11 Environmental Protection Authority, FAO, 1997

12 *Impact Evaluation on the Use of Ethanol with CleanCook stove in the Kebribeyah Refugee Camp*, Ministry of Mines and Energy, Ethiopian Rural Energy Development and Promotion Center (EREDPC), October 2006

13 Kebrom Tekle, *Natural regeneration of degraded hillslopes in Southern Wello, Ethiopia: a study based on permanent plots*. Applied Geography, Volume 21, Issue 3, July 2001, Pages 275-30

14 Rolf Schuttenhelm, *Anti-soot policy can solve 15% climate change within decade*, September 2011, <http://www.bitsofscience.org/soot-policy-climate-change-2909/>

walk an average of nine hours to collect firewood to cook. However, even in the cities efficient stoves and appropriate fuels, such as LPG (Liquid Petroleum Gas), electricity or kerosene, are not affordable to many households and thereby women are in charge of finding biomass to cook for their families. In Addis Ababa, for example, there are markets to buy firewood and charcoal. The Former Women Fuelwood Carriers Association (FWFCA) was established in 2005, to reduce the number of fuelwood carriers by creating alternative income generating activities through saving and credit mechanisms. Its 2500 members walk up the hill of Entoto every day to find firewood to sale in the city. They are among the poorest in the city with an average income of below than \$12 a month.

Health effects

1.96 million people worldwide die each year from illnesses due to indoor air pollution: these deaths are concentrated in developing countries. This means that every 15 to 20 seconds a person dies, usually a child under five, as a result of indoor air pollution. Smoke from burning biomass, such as firewood, contains numerous dangerous pollutants : among others carbon monoxide and particulate matter. Indoor Air Pollution is a major human health concern. The level of IAP in the refugee camps in Ethiopia is one of the highest in the world. Because of their sole house, which has only one entrance, no windows and is poorly ventilated, exposure to the ambient level of particulate matters (PM) is extremely high. There is an association between ambient PM and infant mortality (WHO, 2004) and also between ambient PM and hospital admission for cardiovascular and respiratory disease, urgent care visits, asthma attack, acute bronchitis, respiratory symptoms, and restrictions in activity. Using the improved stove technology leads to a decreased risk of respiratory mortality, lung cancer and many other diseases, especially for women¹⁵..

For all the reasons exposed earlier, household energy is a great topic to illustrate the connection between climate change and women empowerment. During this research, it will be used as a hands-on to exemplify the reconciliation of these two struggles.

Before going through the hypotheses and the structure chosen by the author, it is necessary to proceed to an update on the knowledge on climate and gender. In the past years, even though there has been rapid progress in this specific knowledge, there are still many gaps. Many

¹⁵ Appendices 2 & 3

specialized organizations conducted research on linkages between gender and the environment, water, conflict and disasters. However, until 2008, little had been done to explicitly analyse linkages between gender and climate change. Now, the gender-climate nexus is no longer an unexplored area. The body of work has rapidly expanded and many resources are now available to improve the understanding of the gender-climate nexus connection. Nonetheless, much remains to be done to ensure a knowledge that can be used for policy and practice. Moreover, there are no reports questioning the strategies set up by organizations to reach such a goal. The study draws on secondary literature as well as primary information gathered from interviews and self-experience. It seeks both to provide information about the process that aims to bring gender in the climate change answers policy and an update about gender considerations in implementing programmes. Throughout the dissertation, policy science will be used to analyze the different decision-making process and strategies.

Recognising a tendency to use the terms ‘gender’ and ‘women’ interchangeably (even ambiguously), the introduction finishes by underlining the differences. Talking about men and women usually refers to the biological and physiological characteristics that define them. Gender refers to the “*socially constructed roles, behaviours, activities, and attributes that a given society considers appropriate for men and women.*” (WHO) Gender is organizing societies, and often determines the processes of production, consumption and distribution. Gender issues focus on women and on the relationship between men and women, their access to and control over resources, interests and needs (FAO).

The purpose of this research is to investigate how gender considerations were incorporated in the mitigation and adaptation to climate change projects. It also aims to discuss strategies set up by organizations to incorporate gender in climate change answer. Organizations seeking gender equality seized the climate change issue and considered it as an opportunity. They set up different strategies to use climate change as a way to obtain support and funds. As this research is conducted after an internship at Gaia Association in Ethiopia, which seeks to provide clean-cooking stoves, it will use the household cooking issue as a hands-on.

Is climate change a new opportunity for organizations struggling for gender equality? Why did they seize this raising issue and what strategies have they established? Have gender focused projects benefited from the raising attention from the public, donors and international organizations regarding climate change? Did donors, NGOs and governments have included gender considerations in their work?

The first part of the dissertation will examine the construction and promotion of a concept, the idea that women are not only very vulnerable to climate change but also agents of change to fight climate change. This advocacy work aims to make women and gender considerations a full component of the climate change debate. The second part analyzes how the connection between climate change and gender translates into real ongoing opportunities and challenges into donors and implementers work. It focuses on outlining progress for gender in projects dedicated to fight climate change.

PART ONE : THE BUILDING AND PROMOTION OF A CONCEPT : CLIMATE CHANGE IS NOT GENDER NEUTRAL

In 2009, the United Nations Population Fund (UNFPA) and the Women's Environment and Development Organization (WEDO), an international NGO published a new research kit about the confluence of climate change, population and gender. "*The research kit describes how women are both disproportionately affected by climate change, and an important force in combating climate change. The kit also calls for a gender perspective in the climate change debate[...] focused on women's role in the climate change debate, and provides evidence of why that gender perspective is so important*" (UNFPA, WEDO, 2009). This kit is a great illustration of the work engaged by organizations fighting for women's rights. Indeed, it first raises the issue of the vulnerability of women because of climate change. And then, it demonstrates how women are "*uniquely positioned*" to help fight global warming and why climate change policies should be gender sensitive. With a greater perception of the climate change dangers, organizations fighting for women's equality seized the opportunity to include a gender component to the global debate and to promote their goals.

This part will go through the first steps of the process which leads to a decision. According to Meny, policy action starts with the identification of a problem : its "*definition*". It is followed by the gathering of organizations that realize that they have common interests and ask policy-makers to answer the problem they defined. They then proposed answers and solutions. To reach an adequate response, these organizations set up different strategies : advocacy, pilot testing, lobbying...(1989)

The idea that climate change is not gender neutral is not obvious and as such it was not taken into account in the climate change policies at first. International Organizations and NGOs stepped up, asking two questions : Why are women more concerned by climate change ? Why are they so important actors to fight it ?

This first part will go through the construction and the achievement of the campaign led to link the fights for women and for the environment. The organizations first had to redefine the challenge of climate change to make it gender-oriented (first chapter). Then, they tried to take advantage from the window of opportunity opened by the climate change debate to advocate and raise the awareness about the gender side of climate change (second chapter).

Chapter 1 : The redefinition of the challenge of climate change : for a gender-sensitive answer

Before taking any measure of implementation, the object of a policy needs to be identified and defined. Thus, organizations seeking women's equality created a system of reference that could both fit in the climate change regime and benefit to women. They try to redefine the challenge of global warming, from a male-centric vision to a gender-based perception. Redefining this concept of climate change is extremely important to these organizations since, without gender integrated to the climate change regime, women would be left out of the global climate change answer. They built an argumentation based on answering the question: Why consider gender equality when taking action on climate change? The core of the campaign they constructed was the ambivalence of the women status, vulnerable to the climate change effects but key to tackle it.

Thus, UN agencies and groups conducted research and started spreading the idea that not only women would be the most vulnerable to climate change but that gender inequalities may rise without a suitable answer. Moreover, to put gender at the center of the answer to climate change effects, they promoted gender mainstreaming in order to change the existing systems where women are disadvantaged but also integrate them as active participants.

I / Warning against the danger that climate change increase gender inequalities

Since some years, the idea that women are the most vulnerable to the effects of climate change has emerged. This disproportionate burden on women is the reason why organizations call for greater equality¹⁶. It is now acknowledged that climate change will hit more the poorest in the poorest countries. Since women constitute the majority of the worlds poor (70%) (1) and are often more dependent on natural resources (2), they are likely to be more vulnerable to the effects of climate change.

A) Women poorest of the poorest

In 2007, the Women's Environment and Development Organization's (WEDO)'s report on *Changing the Climate: Why Women's Perspectives Matter* put forward that women's historic disadvantages, such as their poor access to resources and information and their restricted power in decision-making leave them unprotected to the climate change impacts. In 2009, the IUCN (World Conservation Union) released too an alarming report¹⁷ stating that the physical, economic, social, and cultural impacts of global warming will jeopardize women far more than men. Women are directly and indirectly the most susceptible to suffer from climate change.

Women bear the responsibility of managing households and caring for families, which restraint their possibilities of moving around and increase "*their vulnerability to sudden weather-related natural disasters*" (WHO, 2009). The 2004 Indian Ocean Tsunami disproportionately affected women far more then men. While men can immigrate to avoid the effects of climate change, women often cannot respond properly to the impacts because of their family responsibilities. They are likely to undertake additional care work for family members due to the health impacts of climate change. The number of disasters is estimated to raise because of climate change. Floods and droughts will happen in disproportional way and hitting specific regions. Women and men also suffer different negative health consequences following disasters like floods, drought and heatwaves. These differences depend in proportion to the severity of disasters and on

¹⁶ *Poor women 'bear climate burden'*, BBC News, 18 November 2009. Online. <http://news.bbc.co.uk/2/hi/8365808.stm>

¹⁷ Gender and climate change, 2009, <http://www.iucn.org/about/work/programmes/gender/>

the socioeconomic status of women in the affected country. In countries where women have very low social and economical status, this effect is stronger.

Moreover, *“women and girls are at higher risk of sexual violence, sexual exploitation and abuse, trafficking, and domestic violence in disasters”* states the World disaster report 2010 of the International Federation of the Red Cross (IFRC). After a natural disaster, women are more likely to experience increased violence as they become separated from family, friends and other potential support and protective systems. Adolescent girls are especially at risk, facing high levels of sexual harassment and abuse after disasters.

Furthermore, women do a large share of the agricultural work and are therefore affected by natural disasters impacting on food, energy and water. Indeed, women are the *“main producers of the world's staple crops up to 90% of the rural poor's food intake and producing 60-80% of food in Africa”* (International Food Policy Research Institute-IFPRI, 2009). Agriculture constitutes currently 30% of Africa's GDP and climate change jeopardizes this economy. For instance, environmentalists predicted that cereal crops yield will decline up to 50% by 2080. In drought times, the women still have to secure food, water and energy for their homes and have to work harder. River flow rates are predicted to decrease. In the Nile region for example, the decrease in river flow is estimated of up to 75 per cent by 2100 (IFPRI, 2009). Women have limited access to till land therefore such impacts of global warming reduce the productive land available thus reducing crop yields. The UNFPA, who carries many projects directed to women stated then that *“Given women's significant engagement in food production in developing countries, the close connection between gender, farming and climate change deserves far more analysis than it currently receives”* (2009).

Women in rural areas in developing countries are highly dependent on local natural resources for their livelihood. They are responsible of securing food but also water. The effects of climate change, including drought and uncertain rainfall make harder to bring water home. As water becomes scarce the burden increases dramatically as women have to walk longer distances. Women and girls in developing countries spend an average of 134 minutes a day collecting water for their households (Rosen and Vincent, 1999). This extra responsibility reduces the opportunities for girls to enroll to school and for women to participate in activities that would empower them. According to a study, fetching water for domestic consumption in a Zimbabwean family showed that women contributed 91% to this task with men spending 1 hour of the total household time on this chore and women 9.3 hours (UNDP/ENERGIA, 2004). Moreover, carrying heavy loads over long periods of time leads to much maltreatment to the spine, the neck muscles and the lower back, leading to damage earlier the vertebral column.

As of health effects, women also suffer from direct and indirect consequences of climate change. Rising temperatures will increase the transmission of malaria, which already causes 300 million acute illnesses and kills one million people every year. Indeed, pregnant women are twice as “*appealing*” to malaria-carrying mosquitoes as non-pregnant women, which makes them most vulnerable. Dry and rainy seasons, through their influence on agricultural harvest, also impact on the nutritional status and play a role in the pathophysiology of the women. Women are often the last ones to eat, due to traditional reasons (WHO, 2009).

Climate change is also likely to exacerbate gender inequalities as it will increase migrations to cities and poor urban neighborhoods. Indeed, 40 per cent of the poorest households in urban areas are headed by women, more than 50 per cent in some countries such as Haiti and Ghana. *“Women-headed households suffer disproportionately from inadequate housing. They are particularly vulnerable to exclusion from secure tenure often as a consequence of cultural norms and unequal legal rights. [...] Climate change will exacerbate their plight unless conscious efforts are undertaken to redress their situation”*(Alber, 2011).

Thus, first, women constitute primarily the majority of the world’s poor and then are more dependent for their subsistence on natural resources that will be affected by climate change. Moreover, they face social, economic and political obstacles that limit their adapting capacity. Indeed, women are usually confronted to an unequal access to decision-making processes.

B) Women key element of the ongoing energy crisis

Women are particularly concerned by the effects of climate change in forestry and droughts as they are responsible for collecting fuel wood and cooking. In developing countries, fuel shortages increase women’s workload. Today, an estimated 2.4 billion people rely on biomass fuels for cooking and heating. It exacerbates global warming but has also major health impacts by increasing respiratory symptoms, as well as worsening lung function.

The energy use practices effects by different members of the household are not limited to health. In Jijiga, Eastern Ethiopia, boys reported that they *“miss one to two days of school a week in order to work, and girls miss two to three days to help their mothers who are overburdened”*

(World Bank, 2006). Energy mostly comes in a masculine scope, without noticing the nexus between women and energy. However, women are the primary consumers of energy for cooking and heating in the home. In Sub-Saharan Africa, four out of five households cook using an inefficient firewood or charcoal stove or over an open fire. Other fuels are unavailable¹⁸ or unaffordable. In most developing countries, women and girls spend 2 to 20 or more hours per week to collect firewood. When environmental degradation forces them to look further for resources, they spend even more time, becoming more vulnerable to injuries from carrying heavy loads through long distances and also facing an additional risk of sexual harassment and assault. For example, women in the state of Gujarat, India, who previously were collecting fuel wood every four to five days now spend four to five hours each day (Buckingham-Hatfi, 2000). As a result, women have less time to engage in education and empowerment activities and girls are sometimes kept home from school to help gather fuel. Their opportunities for education and income generation are limited by the unavailability of modern energy services. Thus, their families and communities are likely to remain stuck in poverty (UNDP, 2001).

As an example, not only rural Ethiopian women travel up to 12 kilometers to look for fuels, but as they collect interior fuels such as crop residues, roots, bushes and twigs, they need more preparation and cooking times. However, urban women also have to walk long distances on harsh terrain, often barefoot, and carrying heavy loads (World Bank, 2006). Collecting wood also involves risk to personal safety. Women often face gender-based violence (GBV) and fights with landowners who accuse them of infringement.

According to the World Health Organisation (WHO), smoke from domestic fires kills nearly two million people each year and sickens millions more. It is a death toll almost as great as the one caused by dirty water and poor sanitation and AIDS, and greater than malaria. Since women and girls assume the task of cooking, they are the ones facing daily exposure to levels of pollution which are estimated to be the equivalent of consuming two packets of cigarettes a day (WHO, 2006). If clean-burning stoves do not develop, household biomass use will lead to an estimated 8.1 million Lower Respiratory Infection (LRI) deaths among young children in sub-Saharan Africa alone between 2000 and 2030 (Bailis, Ezzati, Kammen, 2007).

Beyond these issues, cooking with open fires is unsustainable and is one the main reason of rapid deforestation in the developing countries. In Ethiopia, forests are destroyed at a rate of

18 Only 28% of Sub-Saharan Africa is electrified

200,000 hectares per year and demand keeps on raising (Jargstorf, 2004). Where wood is already rare, its collection leads to desertification. Further, the burning of hydrocarbon fuels, coal, charcoal, and even dung contributes to the accumulation of greenhouse gases. Smoky cooking fires and stoves contribute to the soot that is estimated to cause approximately 16% of global warming. Whereas energy is not represented in the Millennium Development Goals (MDGs), its potential to tackle climate change through projects designed to address the household energy issue is currently getting recognized.

Women make up 70% of those below the poverty line, they are highly dependent on local natural resources for their living and face historical social and economical disadvantages which limit their access to decision-making process. In order to bring the awareness of the nexus between women and climate change, organizations first conducted studies, published papers to enlighten this side of the climate change issue. They tried to enlighten the connection between two growing regimes: the one for gender empowerment and the one for fighting climate change. They decided to promote gender mainstreaming, which involves both changing the existing systems where women are disadvantaged and integrating them as active participants. Today, many donor organizations, UN agencies and NGO's have adopted gender mainstreaming in their policies.

II/Gender mainstreaming and climate change : changing the systems

The UN Economic and Social Council (ECOSOC) defines gender mainstreaming as "*the process of assessing the implications for women and men of any planned action, including legislation, policies or programs, in all areas and at all levels. It is a strategy for making women's as well as men's concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of policies and programs in all political, economic and societal spheres so that women and men benefit equally and inequality is not perpetuated. The ultimate goal is to achieve gender equality*" (ECOSOC, 1997). The term "gender mainstreaming" was popularized at the Beijing Conference on Women in 1995. After drawing a small history of gender mainstreaming in the climate change regime (A), this chapter will analyze why women should be considered as agents of change (B) and the dangers of implementing gender-blind policies (C).

A) An history of gender mainstreaming and climate change

Agnes Otzelberger states that gender is a "*late-comer on the climate change agenda*" (2011). However, since the Brundtland report "*Our common future*" (1987), ecofeminists like Vandana Shiva have linked environment and women arguing that women have a special connection and are the best placed to protect it (Women, Development and Environment, 1989). As stated earlier, the Beijing Platform for Action and the Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW) constitute the base to frame global donor action for this purpose. However, climate change as a development issue just became to settle down as a donor priority. The urgency of mainstreaming gender in the climate change regime has therefore only been recently recognized by development organizations (Otzelberger, 2011).

Many efforts to mainstream gender issues in United Nations, government and NGO initiatives and projects have been made. Following the Beijing Conference in 1995, most countries adopted national strategies for mainstreaming gender in all development initiatives (Tiessen, 2005). Regarding gender and energy, the incorporation of women into various energy policies and programs at different levels (local, national and international) demonstrates the increased attention to the gender issue. Indeed, the UNDP-Sustainable Energy and Environment Division, World Bank-

Energy Sector Management Assistance Program, and FAO-Rural Wood Energy Development Program created gender desks (Wamukonya, 2002).

Many donors have taken into account gender mainstreaming in their work, thanks to different conferences, CEDAW and the third MDG on women's empowerment. Global Environment Facility, currently largest founder of projects to improve the global environment, recognizes that gender mainstreaming means identifying gaps in gender equality, by using data, consulting and developing specific strategies. However, gender mainstreaming is a wider approach which means that each project should be gender-sensitive rather than "*assuming that both groups will benefit equally from gender-neutral development interventions*" (GEF, 2008). More than adding a gender dimension to the existing systems, gender mainstreaming is about guaranteeing that throughout the entire cycle of a project (thinking, planning, implementation and evaluation), a gender-sensitive approach is conducted. Integrating gender dimensions into responses to climate change means that it would become an integral part of the policy. As examined in the second part, gender mainstreaming often doesn't reach such a deep level and is "*replaced by a tick-box exercise to satisfy the gender requirements*".

B) Involving women as agents of change in climate change responses

In Bali, in 2007, the UNFCCC has identified four areas as "*critical building blocks*" to respond climate change: mitigation, adaptation, technology transfer and financing. UN Women Watch underlines that in the areas of food security, agriculture, biodiversity, water, health, human rights, and peace and security, projects should systematically address gender-specific impacts of climate change. As of financing mechanisms, they need to be flexible to incorporate gender specificity. Technological developments related to climate change also should take into account women's priorities, needs and roles, and use their knowledge and expertise.

It is thus important to identify gender-sensitive strategies to respond to the changes caused by climate change. Another point raised by many organizations, like Oxfam or the International Union for Conservation of Nature (IUCN) is that women should not only be considered as the most vulnerable population to climate change effects but also as actors of change in mitigation and adaptation programs. They have a lot of knowledge and expertise that should be used in climate change strategies. Women also assume the majority of the household work which locates them at a

well position to contribute to mitigation and adaptation strategies. Oxfam launched the Sister on the Planet campaign, assuming that women were the "most capable of creating change and adaptation within their communities". For example, when the small islands of Micronesia faced a drought, local women carried a land-based work and were able to find drinkable water by digging a new well (ECOSOC, 2005).

According to these organizations, a gender analysis must be applied to all actions on climate change. Thus, gender specialists need to be consulted at all levels of decision-making in climate change processes. Women's participation in the development and promotion of new technologies can guarantee that they are sustainable, user-friendly, affordable and effective. Organizations ask for equal access to training, credit and programs to ensure the participation of women in climate change projects. Gender inequalities are considered as barriers in the fight against climate change. Development organizations request the governments to include gender perspectives into their national plans and policies, through a systematic gender analysis. Gathering sex-dissegregated data is one simple change which is essential to provide evidence of how a specific policy might have different impacts on men and women.

C) The dangers of gender-blindness

Women are currently under-represented in the decision-making process of "*environmental governance*" (UN Women Watch, 2009). As they have unique experiences and perspectives on climate change, they can make substantive contributions on management of natural resources for example. They therefore must be consulted and participate in climate change initiatives via the strength of the role of women's groups and networks. Gender mainstreaming in climate change aims to ensure that policies taken are beneficial to women and improve gender equality. More than just adding a gender part, they must go beyond women's participation and insure that women and men's experiences, knowledge and interests will be taken into account to change the agenda itself.

Reaching gender equality is both a development goal (third MDG) and a condition to accomplish a sustainable development. Gender-responsible policies confront themselves to gender-blind programs as they take into account the different roles, responsibilities and knowledge of men and women. Gender-blindness policies deny the social and economical differences of women and men. They are usually based on male-centric experiences and on the assumption that women and men will be affected equally (Kabeer, 2003). Thus, at stake is the exclusion of women and their

specific knowledge from decision-making. Organizations estimate that it would increase gender inequalities, poverty and weaken the effectiveness of the response to climate change.

As of energy, key climate change mitigation area, many people question the role of women, especially where it is primarily thought of in terms of electricity, gasoline and diesel fuels for motors and vehicles, and natural gas. In these areas, women are not expected to be involved with power generation and fuel distribution and are usually excluded of discussions about energy policies. However, in many developing countries, most energy comes from traditional biomass and securing these fuels is rigorously the responsibility of women. Women are usually not recognized as decision-makers, though they have a lot of authority in domestic decision-making and are the ones managing the everyday life of the household (Alber, 2011). Thus, UN Women Watch regrets that gender-blind energy policies fail to "*address some of the most pressing factors affecting the capacity of developing countries to adapt and mitigate climate change*". Inattention to women's needs can make their lives more difficult by strengthening their low status, lack of power and economic weakness. Regarding household energy and improved stoves, women are meant to be the major users of them and need to be consulted. In India, TIDE, a small NGO (Technology Informatics Design Endeavour) found that women in rural areas rejected governmental stoves distributed to reduce consumption of fuel wood, because they emitted more smoke, which was a bigger problem for them (ECOSOC, 2005).

Asking the question "*why consider gender equality when taking action on climate change?*", civil society organizations and UN agencies developed a new definition of the climate change challenge. In this definition, gender is a key point of the answers to climate change, since women and men are affected differently by its effects. Their objective is that the general framework include a woman dimension, both at the end user and decision making levels. For these organizations, though women have the knowledge and skills to fight climate change, they do not have the power, tools and resources to turn this expertise into solutions. Their programs of gender mainstreaming aim to change the perception of the issue and the answer to the issue. After having turned the climate change into a gender-based issue, NGOs and groups seeking women's empowerment and health will try to take advantage of the rising awareness about climate change to achieve their goals.

Chapter 2 : A “*window of opportunity*” for gender equality policies in the climate change regime ?

In the field of aid and development, climate change has been put on the shelf at the moment. It seems that whatever the organizations goals are -women empowerment, better health or family planning - they had to reorientate their missions toward the climate change debate if they did not want to be left out. Climate change could represent a "*window of opportunity*" for their goals. As climate change is currently a key development issue and its connections with gender issues are strong, the cc debate appears like a change, a period where gender issue could be seriously considered by policy-makers.

After defining the connection women-climate change, numerous organizations gathered to organized themselves and conduct similar strategies. How did organizations seeking women's equality manage to bring into focus the gender side of climate change? What organizations played a major role? What strategies did they apply? We will describe the decision making process through a policy science analysis.

NGOs and institutions used a large spectrum of strategies in order to bring into focus the nexus between women and climate change (first section). Many institutions will be created in order to face this emerging issue, within existing institutions or independently (second section).

I / Bringing into focus the gender side of climate change

In this first section, we will consider UN agencies and NGOs whose work is mostly dedicated to women as change agents for society. Indeed, as organizations, they lead actions and set up strategies to reach a goal. It means that they face both internal and external issues. They worked together to bring the gender issue to the international agenda of climate change (1). If they benefited from the increasing attention regarding the latter, the gains are relative (2).

A) Bringing gender to the international climate change agenda

NGOs and institutions applied different strategies to bring gender to the top of the Climate Change responses agenda. First, they generated information and then to spread it to the public, the donors and the decision-makers. Research was conducted about the specific role and response of women to climate change effects but also to analyze CC policies. During deliberations, international conferences, especially at the Conferences of the Parties (COPs), they advocated for Gender Mainstreaming. At the local level and in order to demonstrate the relevance of a gender sensitive approach of climate policies, they helped organizations to implement training of women, supporting their engagement and providing them assets to face CC such as toolkits.

As analyzed in the first part of the thesis, organizations gathered much information about gender in climate change. Using field knowledge and a strong expertise, they disseminated this concept of women as the most vulnerable people to face climate change but key players in the response to CC. The perception of the role of women in CC is currently similarly recognized in almost all environmental groups, agency or organization. Organizations dedicated to women's equality raised awareness about a certain value, idea and promoted it at the global level.

Throughout the consecutive environmental conferences, the central role women play towards the effects of climate change has been acknowledged. In 2007, the Intergovernmental Panel on Climate Change (IPCC) stated that the "*impacts of climate change will vary depending on gender, age and class, with the poor most likely to suffer*"¹⁹. The Convention to Combat Desertification of 2008 endorses the importance of women in regions of desertification and drought

¹⁹ The IPCC is the leading international body for the assessment of climate change. It is a scientific body which reviews and assesses the scientific, technical and socio-economic information produced worldwide regarding climate change. Official website <http://www.ipcc.ch/>

especially in rural areas of developing countries.²⁰ Updating the 1979 CEDAW, the CEDAW Committee published in 2009 a statement on Gender and Climate Change stating the lack of a gender perspective in the UNFCCC and asking for gender equality to be recognized as a guiding principle in the UNFCCC agreement expected at COP15 in Copenhagen²¹. However, gender equity is still not mentioned in the UNFCCC.

In 2003, at COP9 in Milan, some organizations including Women in Europe for a Common Future (WECF)²² and Energia²³ met to discuss about the possibility of giving more importance to the gender issue in CC debates. Asking for more cooperation and networking in order to bring this issue into the negotiations, they created the Gender CC-Women for Climate Justice Network. This network collects all the available information about the nexus between gender and climate change to *"raise awareness and build capacity relating to gender and climate issues among decision-makers and others working on climate change in order to achieve improved policies"*²⁴. Since then, at every following COPs, meetings and side events were organized. At COP13 in Bali, genderCC published position papers about the most crucial issues under negotiation. They were then meeting the agenda, trying to persuade the decision-makers. In Bali, promotion of gender equality was recognized as a component of the climate change issue rather than as a minor concern (Manata, Papazu, 2009). Indeed, the Network of Women Ministers and Leaders for Environment (NWMLE) aims to make the participating nations and the UNFCCC—*"recognize that women are powerful agents of change and that their full participation in climate change adaptation and mitigation policies and initiatives is indispensable and to ensure participation of women and female gender experts in all decisions relating to climate change"* (UNDP, 2009) which is exactly the concept that the genderCC-Women for Climate Justice was promoting. In 2011, a Women and Gender NGOs constituency was officially recognized by the UNFCCC^{25, 26}.

20 More information online <http://www.unccd.int/>

21 Available online http://www2.ohchr.org/english/bodies/cedaw/docs/Gender_and_climate_change.pdf

22 WECF is "an international network of over 100 women's, environmental and health organisations implementing projects and advocating for a healthy environment for all". Official website <http://www.wecf.eu/>

23 Energia is an international network which seeks to contribute to the empowerment of women through a specific focus on energy. Official website <http://www.energia.org/>

24 Official website <http://www.gendercc.net/>

25 A number of active groups including GenderCC, LIFE, Women in Europe for a Common Future (WECF), Women's Environment and Development Organisation (WEDO), Asia Pacific Forum on Women, Law and Development, ETC Foundation, ENERGIA, The Huairou Commission, ICAE, Population Action International are members of the constituency.

26 Since May 2010, the Executive Secretary of the UNFCCC is Christiana Figueres, a Costa Rican woman. It is a symbolic step that lets us hope for more women amongst the decision-makers.

However, since then, no COP has had an official gender strategy. WEDO (Women's Environment and Development Organization) also emphasizes that almost all major global agreements have a gender component, except the climate change regime, the UNFCCC and the COPs. There are many reasons why the gender angle is given low-priority. One of them is that the global climate change agenda is a "*predominantly male agenda, in that men are the primary agenda setters, male norms dominate, and few women participate*" (Oldrup & Breengaard, 2009).

B) Limited benefits of the urgency of the CC issue

Though it was essential for these organizations to be involved within the UNFCCC process, they also advocate at national and local levels. For instance, Population Action International advocates at the US level to promote the gender-CC nexus²⁷. Indeed, they set up local projects faster than the decisions are made at the global level. Katrin Huesken, from gender-CC Women for Climate Justice told me that "*the current visibility of Climate Change issues in the media and in discussion is definitely positive and can be beneficial in terms of funding as donors are already planning additional funding for climate change related projects. But besides this current visibility, we have been working in the area of climate change and gender for a while and the work is not connected to this so said "fashionable" portrayal of climate change*". As the stakes of climate change are becoming clear, the gender dimensions of climate change are gaining visibility. However, the urgency of CC also means that it needs to be tackled as soon as possible. In periods of stress or pressure and when the time is lacking, some plans can also be set up too quick without any gender sensitization. For example, women need to be strongly associated to mitigation programs.

Organizations seeking women's empowerment worked to make room in the climate change debate for the gender perspective. They raised a special concept and idea of women that has been relayed in the UNFCCC conferences. Seizing a window of opportunity, they led a campaign to promote this idea. They created several networks in order to carry on an effective campaign.

²⁷ Appendix 6

II / New actors appearing

As seen earlier, UN agencies and civil society organizations implemented different strategies to bring gender to the attention of the international community. According to Natalia Kostus from International Conservation of Nature, the first organizations to realize the importance of considering gender in climate change were environmental organizations²⁸. In order to reach their goal, they built alliances with partners who shared the same objectives (Action Town, 2009). Constituting alliances is indeed an important constituent of campaign effectiveness. Since a decade, platforms have been created that gather objective and influence political decision-making (1). As of the nexus between women and energy, the major alliance established was the Clean Cook Stoves Alliance (2).

A) Creation of new platforms

There are many different actors working on the gender-climate change problematic: NGOs (ENERGIA, WEDO, WECF, IUCN are the most important), Ministers (Network of Women Ministers of Environment), UN Agencies (UNEP, UNDP, FAO, UN/ISDR), academics (United Nations University) and platforms, such as the Global Gender and Climate Alliance.

Gender Concerns Platforms have both a brainstorming and advocacy role. Indeed, these caucuses allow the information sharing about mitigation best practices and adaptation strategies amongst gender activists. Concerning the advocacy part, since its creation in 2003, the Gender and Climate Change Network²⁹ has been playing an important role at the COPs to bring the gender dimension in climate protection debate. It is supported by many partners, UN agencies (FAO, UNFPA) and international and local NGOs (WEDO, the Gender and Climate Change Network Africa) that aim at raising awareness on the climate change regime (Omoragbon, 2011). Though its role is mainly to serve as a clearinghouse for information on the nexus between gender and climate change, it is constituted of over 450 members, including organizations and individuals.

In 2007, 4 years later, the Global Gender and Climate Alliance (GGCA) was launched at the UN Climate Change Conference in Bali. The GGCA currently includes 13 United Nations and more than 25 civil society organizations. The GGCA was created by WEDO and the IUCN in partnership with the UNDP and the UNEP to form a "*united front on gender and climate change*". The GGCA

28 Appendix 5

29 Previously presented as GenderCC – Women for Climate Justice

aims to ensure that climate change policies at the global, regional, and national levels are gender responsive. This partnership particularly has the objective to ensure that financing mechanisms of mitigation and adaptation address the needs of poor women and men equitably. As a result, the GGCA commits itself strategically with the Adaptation Fund Board to raise awareness of gender considerations within the operations of the Adaptation Fund. The GGCA made concrete suggestions about how gender concerns could be incorporated into the Adaptation Fund's Operational Policies and Guidelines and it referenced gender considerations for the first time in 2011³⁰.

On behalf of the GGCA, WEDO manages two key projects: the Advocacy Team and the Women Delegates Fund (WDF). The Advocacy Team tracks the UNFCCC negotiations with civil society leaders from diverse backgrounds, expertise and regions. They work closely with government negotiators as technical advisors to integrate effective gender considerations into climate change policies. WEDO also administrates the WDF, in partnership with UNDP, which provides "*travel and capacity building support to women delegates*" from the global South. It generally stands up for women to join their national negotiating teams at UNFCCC to rise in women's participation in the UNFCCC process.

At the local level, new NGOs and groups which connected the issues of gender and climate change were also created. Others implemented new activities or boards such as the Center for Asia-Pacific Women in Politics (CAPWIP). CAPWIP is a regional NGO which aims to promote women's participation in political decision-making. It participates in various climate activities such as hosting a conference on gender and climate change in 2008 in the Philippines.

B) The Global Alliance for Clean Cookstoves

Launched in 2010 at the Clinton Global Initiative Forum, the Global Alliance for Clean Cookstoves is a public-private partnership led by the UN Foundation that aims to empower women and combat climate change by creating a successful global market for clean and efficient household cooking solutions. The Alliance's official goal is that 100 million homes adopt clean and efficient stoves and fuels by 2020. To achieve its "100 by 20" target, the Alliance seeks to mobilize \$250 million to promote stove standards, encourage innovative financing mechanisms and field test clean stoves and fuels. Several US agencies such as the U.S. Department of State, U.S. Environmental

30 More information available online <http://www.wedo.org/news/progress-on-gender-in-the-adaptation-fund>

Protection Agency (EPA), U.S. Department of Energy, U.S. Department of Health and Human Services-Centers for Disease Control and National Institutes of Health, and the U.S. Agency for International Development (USAID) have already together mobilized financial resources, U.S. experts, and research and development tools. Moreover, the initial U.S. financial help to the Alliance is \$50.82 million for the next 5 years.

The Alliance is only two years old but already includes more than 75 national governments, UN agencies, private companies and non-governmental organizations. As we have seen earlier, the household energy problematic links the issue of women health and empowerment and climate change. The motto of the agency is incidentally "*Clean cookstoves for a healthier people and a healthier planet*"³¹. It sets up two websites: <http://www.cookingshouldntkill.org/> is clearly devoted to raise awareness about household cooking and related problematics whereas the official website <http://cleancookstoves.org/> seems more dedicated to organizations working in this field.

Another strategy used by the Clean Cookstoves Alliance to raise awareness about this issue was to call celebrities for help. Since May 2011, Julia Roberts is a global ambassador of the clean cookstoves campaign³². Leslie Cordes, interim executive director of the Alliance said that "Secretary of State Clinton's support has been critical in raising the importance of the issue globally". She has noticed a "*groundswell of interest*" in the issue recently, she said. Hillary Clinton is particularly dedicated to this cause and was scheduled to meet with women in Addis Ababa, Ethiopia who use or sell new and clean stoves³³.

A central part of the Earth Day campaign 2011 was dedicated to the Women and the Green Economy (WAGE) campaign which aims to empower women to create a sustainable green economy and mitigating climate change. The WAGE campaign was founded at the 16th UNFCCC in Cancun, Mexico to advocate for women leadership. According to Jenny Powers, Director of the Natural Resources Defense Council, "*women are on the frontline of climate change and other environmental crises. It makes sense to see them spearheading the effort to solve our environmental problems and jumpstart the clean energy economy*".³⁴ Looking at this example, it

31 More information available online http://blogs.state.gov/index.php/site/entry/clean_cookstoves

32 More information available online <http://dekoposh.com/top-stories/1895-julia-roberts-and-hillary-clinton-team-up-for-clean-cooking-charity-campaign>

33 More information available online http://articles.cnn.com/2011-06-13/politics/clinton.cook.stoves_1_older-stoves-global-alliance-state-hillary-clinton?_s=PM:POLITICS

34 More information available in the official Earth Day website <http://www.earthday.org/campaign/women-and-green-economy-wage>

seems that gender issues are currently strongly connected to climate change fighting policies. The climate change debate appeared like a "window of opportunity" to raise the awareness about gender issues.

In decision-making theory, the last step of the identification of an issue -its redefinition and the union around it- is asking for an appropriate answer. In order to obtain this answer, organizations will formulate solutions or action proposals.

PART TWO : WOMEN KEY DRIVERS IN THE FIGHT AGAINST CLIMATE CHANGE : FROM THE IDEA TO THE FACTS

While research on the link between women and climate was increasing, a growing number of women NGOs started to advocate for the incorporation of a gender perspective in climate change policies (GGCA, WEDO, WECF). Governments, NGOs and UN agencies have adopted by slow levels the language of gender mainstreaming, creating new desks, spreading information and joining international networks. However, this language has not been perfectly translated into specific gender-sensitive practices and strategies for climate change programming at any level. As seen before, a gender-blind approach for mitigation and adaptation programmes minimize their risks of succeeding. As an example, many programs and projects have tried to introduce improved energy technology and renewable energy technologies, such as photovoltaic systems, and technologies which preserve fuel, such as efficient wood stoves. In 2004, a report by Energia examining several energy programmes stated that not one of "*all of these programs and projects have been successful, and one of the contributing reasons is that they have mostly been planned with scant regard for gender aspects of the energy problem.*"

This second part discusses the success of the women organizations campaign to integrate gender in climate change answer policies. Did women NGOs succeed in promoting a gender sensitive answer to climate change ? Are mitigation and adaptation programmes gender-sensitive ? This part will be less theoretical and many case studies will be developed to illustrate the key role that women play in climate change policy answers. The chapter three will highlight gender-sensitive projects that have been successfully implemented whereas the fourth chapter will question the reality of gender considerations with climate change answers policies.

Chapter 3 : An advantageous situation to implement gender sensitive projects

An advantageous situation means benefiting of an appropriate time for achieving a particular end. Gender is more and more considered in international negotiations and at more local levels. That should put women in a favourable position to increase gender equality.

This part go through the second phase of a policy cycle. After bringing an issue at the agenda, then comes the inputs, the implementation step and its effects : outcomes and impacts. The first chapter discussed the constitution of the gender issue in the climate change debate, the first part of the second chapter reviews the implementation process, considering different stakeholders policies including donors.

The first section discusses the implementation process of the idea promoted by gender sensitive organizations : not only women are vulnerable to the effects of climate change, they also are agents of change for adaptation and mitigation strategies. The second section argue about the donors policy regarding gender and climate change. Did they adapt to gender mainstreaming ?

I / From empowerment to involvement : Women change agents for adaptation and mitigation strategies

During my internship at Gaia Association in Ethiopia, I had the opportunity to visit Somali refugee camps in Eastern Ethiopia where a clean stove and fuel distribution was carried out. We provided stove displays and safety trainings to Somali refugees to ensure an efficient use of an ethanol cook stove. Only women were accepted in the training course. Indeed, they will be the only users of this technology. The surveys and monitoring previously conducted were also women-targeted. Thus, gender mainstreaming has been incorporated into field programmes. Even if Somali women are socially and economically marginalised, Gaia Association with the support of the UNHCR and the Women's Refugee Commission consider them as agents of change in its clean cook stove project.

Gender sensitive projects aim to lead women from empowerment to involvement. Indeed, gender sensitive trainings, workshops and education programmes for women are increasing capacity-building of local communities³⁵ and women's social and political power (1). Many mitigation and adaptation programmes are currently gender-sensitively implemented (2).

A) Capacity building for women and communities : “creating the next generation of environmental leaders³⁶”

Andrea Delgado, senior policy analyst at the National Latino Coalition on Climate Change (NLCCC) said that “*Women have a critical role and make most of the decisions at home. It is critical to empower them with choices that are good for the environment.*” The CC debate provides organizations the opportunity to ask for more education and women empowerment. The final goal is an equal participation of both women and men in planning and decision-making (Wenden, 2011).

While not an exhaustive list of strategies, the following projects illustrate how women can take leadership to anticipate, resist and recover from the impact of climate change (Aguilar, 2009). Many organizations started to mainstream gender into their field activities. These organizations, following

35 The UNEP defines capacity building as “*building abilities, relationships and values that will enable organizations, groups and individuals to improve their performance and achieve their development objectives. This definition puts emphasis on three aspects: (a) capacity building as the catalyst and constant fuel for a process of change, (b) the importance of building institutional capacity, and the (c) involvement of a wide range of different groups in society.*”

36 Andre Delgado, senior policy analyst at the National Latino Coalition on Climate Change (NLCCC)

different goals (environment, gender, climate change adaptation) of different types (NGOs, UN agencies, Governments), consider women as agents of change. Oxfam created the Sister on the Planet campaign, strongly convinced that "women with agency and social power will minimize the effects of climate change". Regarding environmental NGOs, *Friends of the environment Nigeria* carries out a project of LPG stove. They claim that they "promote [the switch from firewood stoves to LPG stoves] via community education and policy change"³⁷. Indeed, empowering women is a first step towards their involvement in the decision-making process. In developing countries, women are often socially marginalised, it is thus a long process to convince men of the importance of their participation.

As seen earlier, when NGOs such as *Solar Sister* in Africa³⁸, *Barefoot College* in India,³⁹ train women (and men) to work as school teachers, solar engineers or solar cooker engineers, this not only empowers women but helps their families and communities. Indeed, according to the WFP, women who earn money, invest 90% back into their families and into their communities⁴⁰. The choice of empowering women to be leaders rather than victims through local capacity building efforts is then also a choice for local communities⁴¹.

Adaptation and mitigation strategies require the development of different technologies that can be adopted by men and women. They should take into account men and women's specific needs. Nowadays, very few opportunities for the improvement of cooking technology is likely to benefit poor women. For this reason, many organizations implementing climate change policies design gender trainings, sensitizing both men and women. Governments are incorporating gender perspectives in their national policies. The International Union for Conservation of Nature (IUCN), one of the founders of the Global Gender and Climate Alliance has been providing a Red Book to support governments which want to add a gender perspective to their climate change response policies. Asked by several Middle-Eastern countries for its expertise and help, the IUCN, on behalf of GGCA is currently providing trainings in numerous countries⁴².

In some places, women are leading the way. In Bangladesh for example, one of the most vulnerable country to the CC effects, women in poor communities are leading projects to introduce

37 Women Key to Reduce Impact of Climate Change in Nigeria, March 9, 2010, by By Nina Grigoriev, <http://www.charcoalproject.org/2010/03/women-key-to-reduce-impact-of-climate-change-in-nigeria/>

38 More information about the Solar Sister on their website <http://www.solarsister.org/>

39 More information about the work of the NGO Barefoot College on their website <http://www.barefootcollege.org/>

40 February 2011, <http://www.wfp.org/content/best-investment>

41 *Climate Change/Climate Justice and Gender Mainstreaming : Exploring Best Practices*, Pastor Peters Omoragbon, Executive President of CEO Nurses, January 2011, Ethiopia

42 Interview with Natalia Kostus, September 2011. Appendix 5

early warning systems to help them cope with increasingly severe floods. After trainings about disasters, they are able to spread their knowledge among the community⁴³.

Since 2009, the Environmental Defence Fund, in partnership with *The Hunger Project*, two US NGOs and local NGOs are working to empower women in rural communities to support their active engagement in working to adapt climate change. They produced a film that has been shown in more than 400 villages in three separate states at climate workshops⁴⁴. It is the opportunity for women to gather and share their knowledge about the impact of climate change in their community lives. During this workshop, women leaders are given the tools to be able to engage in shaping decisions.

What is very striking when looking at women-targeted projects is that women need to be provided with opportunities to take leadership and to solve problems (Wenden, 2011). Indeed, they do not own adequate social or political power to take the lead without prior gender sensitization. In India, Self Employed Women's Association (SEWA), the largest poor women's organization with 1,1 million members, launched a campaign that combined traditional farming techniques with green technologies to mitigate the effects of climate change. To reach this aim, SEWA has trained 3685 "barefoot" technician women in different fields like water conservation, construction, solid waste recycle, solar lamp production and other environmental-friendly activities. The trainings benefited to the whole communities as well as the environment, with more than 2 millions tree planted and green economical activities generated⁴⁵. The knowledge that men often lack of, places women in a position of power when it comes to planning for projects and decision-making. They are empowered with the capacity to take initiatives, which would traditionally be men responsibilities.

B) Gender-differentiated mitigation and adaptation strategies

When CC projects target women as key beneficiaries, it means they also incorporated outcomes and objectives related specifically to women, and included gender-sensitive training. As an example, the Global Environmental Facility (GEF), currently the world's largest funder of environmental projects, considers that it "*has a mandate to address gender equality in its work through gender mainstreaming*" (Awori, 2009). Projects that include a direct and comprehensive response to the needs of female stakeholders are particularly supported.

43 See Sahena's interview by Oxfam (Sister on the Planet campaign) http://www.oxfam.org.uk/get_involved/campaign/climate_change/sisters/sahena.html

44 "Aarohan" is the title of the film which in Hindi means "a new beginning" <http://www.vimeo.com/20791572>

45 <http://www.sewa.org/Sierra%20Club%20Award.asp>

For instance, in Mali, a project untitled *Mali Household Energy and Universal Rural Access* of US\$5.2 million was implemented to “*increase access of isolated low income populations to basic energy services, in order to help achieve economic growth and poverty reduction targets and remove the barriers to adoption of renewable energy technologies that will reduce greenhouse gas (GHG) emissions, primarily carbon dioxide.*” In this country, women are the major actors in production (they collect fuel wood) and the beneficiaries as rural electrification will improve fuel supplies. The whole cycle of the project was gender oriented. The assessment included gender analysis and a consultation with both women and men during programme preparation. As women were identified as the only family member responsible for collecting fuel wood and cooking, implementation strategies stipulated women as major target. GEF states that “*the quality of life of rural and peri-urban populations, particularly women, is expected to noticeably improve with the success of the project*” (GEF, 2008).

In the energy field, where women play a major role in developing countries, gender differentiated projects are implemented. The United Nations International Strategy for Risk Reduction (UNISDR) set up a project in Sinsibere, Mali, a Sahelian country composed of two-thirds of desert, and where 90 per cent of the energy needs are satisfied by burning wood and charcoal. Women were provided with alternative ways to diversify their income sources, which was mainly selling wood. Rural women were trained to grow gardens, make soap and use efficient stoves. After six years, 80 per cent of the participating women no longer cut wood for commercial purposes. They participate in the mitigation part of fighting climate change (UNISDR, 2008). However, many projects still consider gender as a secondary issue.

In these projects, a broadening scope of responsibilities for women, moving from the home and local community to governmental departments, the public sphere beyond the local community is noticeable. Their role has expanded (Wenden, 2011). These projects demonstrate the critical role education plays if women are to be change agents within their communities. Trainings provide them new knowledge that leads to “*better control of the adverse effects of climate change*”. The positive results of these projects in terms of mitigation and adaptation but also gender equality has the potential of bringing root to challenging relationships of inequality. Cupples reports that when women respond to natural disasters, some of them feel a new sense of freedom. However, more research is necessary to determine definitively whether new tasks and responsibilities will lead to a re-definition of gender roles (Cupples, 2007).

II / Opening of funding chances to turn policies into action

Some organizations have taken a relevant and extensive gender responsive approach in their for climate change adaptation and low-carbon development programs. Among the different stakeholders working on climate change and development-related issues (governments, civil society, even the recently emerging private sector), the role of donors is essential. Indeed, they need to take the lead on promoting a bigger focus on the social and gender dimensions of climate change (Oztelberger, 2011). Donors are also policymakers. In the climate change domains of research and policy, donors carry a key role in ensuring that gender, as well as other human development considerations, are incorporated into adaptation and mitigation efforts. In a climate change policy area where finance and environment departments, natural science and engineering prevail, donor organizations incline to be more concerned with the social development and poverty reduction aspects of climate change. As a consequence: they have both the opportunity and responsibility to demonstrate leadership in promoting a comprehensive mainstreaming of gender into all aspects of their climate change-related work. This section focuses on the role of donors in the gender mainstreaming process. It will discuss the progress on incorporating gender into climate change funds at international and national levels.

In a first part, a general statement about gender integration in climate change funds discusses the importance and challenges of climate finance. Then, two climate global funds are deeply analyzed, the Global Environment Facility and the Adaptation Fund. Eventually, the gender considerations of the Biomass Energy Initiative for Africa, a World Bank fund, is examined.

A) Gender integration in climate finance mechanisms

Oztelberger underlines that “*most donors have committed to mainstreaming gender across their work, in light of the Beijing Platform for Action, CEDAW and Millennium Development Goal (MDG) 3 on women’s empowerment*” (2011). Gender mainstreaming should be about ensuring that through all the cycle of the project, a gender-responsive approach is adopted. Every UNFCCC Conference brings debates and discussions about climate change financing. It is essential for women and environmental organizations to take part in these discussions to promote gender responsive answers.

Oztelberger notes that the fundamental basis of gender responsiveness across donors work consists of two main arguments. Some donors emphasize the impact of gender equality on poverty

reduction and development aftermaths and thus have taken an “*instrumental*” or “*efficiency*” approach. Most donors have combined this approach with a rights-based position, following their governments' commitment to international human rights law (CEDAW of 1979 and 1995 Beijing Platform for Action on gender equality,).

One of the first global funds established by the Kyoto Protocol to benefit women is the Clean Development mechanism. It is dedicated to reduce greenhouse gas (GHG) emissions in developing countries. To be successful in developing countries, small-scale projects were favored in different fields, biomass energy generation, deforestation and reforestation. These projects bring usually maximum benefits for marginalized groups such as women. This fund illustrates a “*concrete possibility built into the Kyoto Protocol of implementing the gender angle to climate change into practical development activities*” (Lambrou & Piana, 2006).

More and more projects are implemented following gender-based funds instructions. These projects are set upright by women and environmental organizations to push donors to go forward. They erect many case studies of gender-oriented climate funds which outcomes are successful. The National Adaptation Programs of Action (NAPAs)⁴⁶ are often considered as a fund that can easily be gender-oriented. Many NAPAs note the key role of women in sustainable management. However, they also observe that they need the necessary information and skills to become “*effective innovators and leaders in climate change adaptation and mitigation at the community level*”. Almost all NAPAs acknowledge the urgency and threatening character of climate change and many describe women among the most vulnerable in these situations. However, few undertake a deep analysis of women's economic, political and social status. And even fewer incorporate women as “*key stakeholders or primary participants in NAPA activities*”(UNFPA & WEDO, 2009).

In spite of that, many good practices are highlighted. UNFPA and WEDO note that in Eritrea, “*women's groups participated in the development of the NAPA, and female-headed households are particularly targeted by one of the projects*” (2009). Some countries go further and fulfill women organizations' demand to put gender forward. In Malawi, women's NGOs took part at the preparation of the NAPA, and gender is one of eight criteria for selecting projects. Malawi also includes the empowerment of women through “*access to micro finance, ensuring easier access to*

46 “*National adaptation programs of action (NAPAs) provide a process for Least Developed Countries (LDCs) to identify priority activities that respond to their urgent and immediate needs to adapt to climate change – those for which further delay would increase vulnerability and/or costs at a later stage. As of October 2008, the UNFCCC secretariat had received NAPAs from 38 LDCs. NAPA preparation and implementation is primarily funded by the Least Developed Countries Fund (LDCF) of the UNFCCC, which is administered by the Global Environment Facility (GEF). After submitting a completed NAPA to the UNFCCC Secretariat, LDCs are eligible for implementation funding. The UNFCCC has estimated that USD 500 million will be needed to finance NAPA implementation.*” Official website http://unfccc.int/national_reports/napa/items/2719.php

water and energy sources, and a rural electrification program” in the proposed interventions. Moreover, three priority activities (out of five) will disaggregate beneficiaries by age and sex.

It is relevant to discuss another fund, the Green Climate fund. The Cancun Agreements, adopted in December 2010, established the Green Climate Fund to provide assistance to developing countries⁴⁷. The international community is still designing the fund. Civil society organizations, mainly WEDO and its partners are “*working to ensure the equitable and effective allocation of funds for the world’s most vulnerable populations*”. At the regional Transitional Committee meeting in Tokyo, the Women and Gender Constituency declared that “*Gender equality as a cross-cutting issue must inform the Transitional Committee’s discussions about every aspect of the fund – from the statement of principles to statement of governance, from the fund’s scope to beneficiaries, from actual gender-balanced representation in the Fund’s Board and other decision-making bodies to the institutionalization of monitoring and evaluation and redress mechanisms. The Green Climate Fund must be created as a gender-responsive climate finance mechanism by mainstreaming a gender perspective across all funding windows and funding instruments.*” During the UNFCCC meeting in Bonn, WEDO, with Action Aid and the UNDP Gender Team presented a document entitled “*Key Principles for Incorporating a Gender Dimension into the Green Climate Fund*” for distribution at the Transitional Committee meeting (WEDO, 2010). The advocacy work is very important for climate finance mechanisms.

Some donors evolving outside the global framework have already incorporated gender mainstreaming in their policies. For instance, the UK Department for International Development (DFID), responsible for promoting development and the reduction of poverty launched in 2009 a program on Gender and Climate Change, in order to “make a significant contribution to providing clear, evidence-based pathways and recommendations for action and thinking on the issues, bringing together experts and intensifying the dialogue on this issue” (metriades & Esplen, 2008). DFID is funding other programs which aim to integrate a gender perspective in CC adaptation programs such as the CARE Adaptation Learning Program, the Adapting to Climate Change in China (ACCC) program well as the Climate Change Adaptation in Africa (CCAA) Program (Zelberger, 2009).

47 See unofficial website at <http://www.climatefund.info/>

B) Gender mainstreaming in two global climate funds : cases studies

In September 2011, Gender Action, in partnership with WEDO and Oxfam published a research report entitled “*Governing Climate Funds: What will work for women?*” It examined how two non-climate funds and two climate funds⁴⁸ were integrating gender issues into their policies and investments. According to Gender Action researchers, “*climate finance funds on the whole still have a long way to go in order to achieve meaningful gender integration in their policies and programs.*” They draw critical conclusions about climate financing stating that “*climate financing funds have systematically neglected gender issues and failed to incorporate a gender perspective into programs and projects*”. The existing climate change funds underestimate gender mainstreaming, and do not recognize it as an essential component to adequately address climate change. Even though the Adaptation Fund acknowledge gender and link it to “*vulnerability*”, it does not consider women as key agents of both mitigation and adaptation strategies.

The Global Environment Facility (GEF), currently the world’s largest financier of environmental projects adopted recently a gender policy. “*The policy mentions the involvement of women in the design and implementation of GEF projects, particularly with regard to projects that impact the incomes and livelihoods of local populations*”. Until quite recently, GEF did not have a gender policy but a “*gender practice*” It means that gender integration was not systematically required when examining a project. The lack of a gender policy was due to organizational practices. Indeed, GEF finances its projects through implementing agencies and these agencies apply then their own social -including gender- policies to GEF funded projects. Conscious of this gap, the GEF Council eventually engaged in a gender mainstreaming policy on May 2011. GEF now states that it “*aims to further the goal of gender equity in the context of GEF operations*” (GEF, 2011). It seeks to take a proactive approach that uses analysis, indicators, and other tools (Watanabe, Personal Communication, 2011). According to the policy plan, the GEF Secretariat and GEF Partner Agencies will establish (a) policies, (b) strategies, or (c) action plans that promote gender equality in order to access funding. “*These tools must satisfy the minimum gender mainstreaming criteria included in GEF’s gender policy*” (GEF, 2011).

48 Case studies of the two nonclimate fund : the Global Fund to Fight AIDS, TB and Malaria (Global Fund) and the Global Alliance for Vaccines and Immunization (GAVI Alliance). Case studies of the two climate funds, the Global Environment Facility (GEF) and the Adaptation Fund (AF).

GEF developed “*Socioeconomic and Gender Guidelines*,” to conduct its gender policy. Project managers should use these guidelines to consider gender questions and considerations needed for project evaluation. In May 2011, GEF introduced a “*new monitoring and evaluation tool for adaptation projects that looks at some gender differentiated impacts*.” This assessment tool requires sex-disaggregated data for 8 of its 47 outcome indicators. “*Gender*” is also an explicit reporting requirement. Regarding its internal organization, GEF has achieved a relatively gender balanced staff even in the absence of a gender equality policy. Women currently constitute 49 percent of staff. Out of 96 staff members, only two have gender expertise, and GEF uses an external gender expert. To guide its new gender mainstreaming policy, GEF also plans internal gender training for fall 2011. However, GEF keeps on relying on implementing agencies that still do not have a gender integration program. The two agencies that implement the most GEF funds, the World Bank and UNDP, have both established an institutional gender policy. However, Awori, gender expert of GEF stated in 2009 that “*despite many years of practice, neither of these organizations is at the point of proficiency in gender mainstreaming that GEF can totally rely upon*.” Thelma Awori also says that World Bank and UNDP staff “*do not get pressure from the GEF units to do a gender analysis of their projects*” which leads to an “*undifferentiated approach to project design and implementation*” and “*weak project effectiveness [and] missed opportunities for sustainability of outcomes*”.

Then, Gender Action analyzes the Adaptation Fund policy and practice for gender integration. The Adaptation Fund (AF) was established by the Parties to the Kyoto Protocol of the UNFCCC to finance concrete adaptation projects and programs in developing countries and the Fund was officially launched in 2007. One of the major aims of the Global Gender and Climate Alliance (GGCA) is to ensure that financing mechanisms on mitigation and adaptation consider the different needs of poor women and men. The UNDP Gender Team, on behalf of the GGCA, tries to raise awareness of gender considerations within the operations of the Adaptation Fund. The Board agreed to integrate gender considerations and the revised templates annexed to the Adaptation Fund’s Operational Policies and Guidelines have been approved and referenced gender considerations for the first time. The references in the Adaptation Fund’s Operational Policies and Guidelines can be found in the Project and Program Review Criteria, where stakeholders have to answer if “*the project / program provide economic, social and environmental benefits, with particular reference to the most vulnerable communities, including gender considerations*”. Moreover, the Template for Project/Program Proposals requests countries to “*describe how the project / program provides economic, social and environmental benefits, with particular reference*

to the most vulnerable communities, and groups within communities, including gender considerations” and how “the consultative process [...] [was conducted] with particular reference to vulnerable groups, including gender considerations.” (WEDO, 2010). Gender Action anyhow that states firstly that “AF does not have a gender policy.” Neither the operational guidelines, accreditation procedure and project review criteria include specific references to gender. AF expects National Implementing Entities (NIEs) to “consult with all necessary stakeholders”, but is not more specific. Moreover, monitoring and evaluation are country-driven, so NIEs structure their own indicators for evaluation. The existing AF evaluation framework mentions gender only through a “definition of vulnerable groups that includes women”. Countries are also “invited to disaggregate data by sex where possible,” but not mandated to do so. However, AF just starts to implement projects and has not yet conducted project implementation. Gender Action recognizes that, “despite lacking formal requirements for it, gender is showing up to varying degrees in AF project proposals”. For instance, Senegal’s project proposal, “Adaptation to Coastal Erosion in Vulnerable Areas,” puts forward women’s particular vulnerabilities. One of the project’s objectives addresses female fish processors directly, and specific consultations, training, and interventions for women are conducted. The project includes also a women and youth organization among its implementing agents (Dynamiques-Femmes).

Regarding the institution internal organization, a woman heads the AF Board, although the Board itself is predominantly male (12 men and 4 women). Vogt noted in 2010 that even though female presence would not guarantee gender sensitiveness, “giving women equal representation at the board level of such a premier global climate change financing instrument would send positive reform signals to other financing instruments [...] and revitalize gender mainstreaming and gender-equity efforts in the larger climate change community”.

Moreover, as AF wants country-driven processes without too many mandates, it means that Southern countries have an opportunity to assume leadership in regard to gender integration in AF funded projects, as demonstrated by Senegal’s “Adaptation to Coastal Erosion in Vulnerable Areas” project. However, in order to cultivate informed demand and encourage gender integration among country partners, Gender Action asks the “AF Board itself [...] [to] demonstrate a strong commitment to gender equality and attentiveness to gender integration throughout all project cycles by creating a gender policy that ensures accountability”.

C) The Biomass Energy Initiative for Africa

This part will go through the Biomass Energy Initiative for Africa (BEIA), World Bank program, which illustrates how gender is considered in an important fund. BEIA was launched in Nairobi, Kenya in December 2010⁴⁹. It supports different pilot programs in several African countries. It focuses on five thematic areas: *“creating the enabling market conditions for high quality and high performance modern cooking stoves, modernizing the charcoal industry, demonstrating the feasibility of social biofuels, increasing power capacity with bioelectricity, and capacity building and strengthening leadership in biomass energy.”* One of the projects supported in Kenya is implemented by Kenya's Help Self Help Centre (HSHC), a NGO which organized a process of producing bio-diesel at the farmer level and *“seeing it through to purchase by consumers”*. *“HSHC is organizing farmers and seed collectors, many of them women, to deliver bio-diesel to collection centers, where it is prepared for sale”*. The World Bank launched the BEIA in 2010 to improve the energy availability in Africa. Indeed, eighty percent of Africans rely on biomass. In Sub-Saharan Africa, over eighty percent of the population depends on wood, crop and animal residues for meeting their household needs (mainly cooking). As seen earlier, women are most concerned by this issue. In its website, in the project presentation, World Bank ensures that *“strategies for gender empowerment through biomass development were also explored”*, just after guaranteeing *“environment and socially robust projects with complete transparency”*. The Bank's Director for Sustainable Development in the Africa Region, Jamal Saghir, said that *“the development of biomass energy is closely linked with forestry, agriculture, indoor air pollution and health, environment and climate change, rural electrification, and gender development. And all these linkages have to be explicitly recognized and harmonized to have a unified sustainable approach.”* It seems that for the BEIA program, as well as for the AF and the GEF, the implementing partners bears the main responsibility of accomplishing gender integration through climate programs.

Analyzing gender dimensions of several climate change funds, this part examined gender mainstreaming in donors' work. The need to mainstream gender into CC answers has only recently been recognized in the international development area. Some donors have begun to champion gender and women's empowerment in climate change. Gender Action, WEDO and other organizations still play an important role in promoting gender mainstreaming in donors' work. They regularly publish reports establishing ongoing challenges and recommendations. Their conclusion is

49 *Biomass: Meeting Sub Saharan Africa's Energy Needs*, 22 December 2010, World Bank Ghana on <http://go.worldbank.org/68ZS0RBW00>

always that “*compared to other areas, gender mainstreaming into climate change programming has been particularly weak*” (GEF 2008, World Bank 2010). Gender equality and related donor commitments are not systematically reflected in the programs donors fund. According to Otzelberger, it is “*largely due to a lack of systematic procedures and mandatory requirements for procurement and funding or loan agreements*” (2011).

Chapter 4 : Gender, not yet a substantial component of climate change response policies

Organizations who gathered within GGCA aim to make gender a core issue and not a "side event". During international climate negotiations, they promote the inclusion of gender-responsive policies. The balance is not bright. Women empowerment will not probably be achieved through climate change mitigation or adaptation programmes. However, organizations keep on supporting women as agents of change. They establish balance reports and give recommendations.

In 2010, in a report entitled "*Mainstreaming Gender in Climate Change Policies : urgencies, challenges and perspectives*", WEDO and WECF enumerated the ongoing weaknesses of the nexus climate change-gender. According to them, there is a lack of priority for social issues in climate change policies. As a consequence, gender is also not considered as a relevant issue. This is emphasized by the fact that climate change is a complex problematic. The different sectors involved have difficulties to communicate and understand each other. The lack of institutional capacity is also challenging gender mainstreaming as well as the lack of gender specific information, data and analyzes.

The first section of this last chapter will analyze the fragilities of the connection climate change-gender. Indeed, despite the increasing recognition of the importance of both issues, their connection still does not appear in field work. The second section will try to draw the biggest challenges of gender mainstreaming in the climate change policy spectrum.

I/ Climate Change and Gender : two important issues but hard to connect

To introduce this part about the difficulties of fully integrating gender in the climate change problematic, taking a wider angle can be appropriate. Indeed, gender mainstreaming takes part in including social issues in climate change debate. Climate change is still mostly perceived through an environmental, natural science spectrum. Even though there is a growing awareness that climate change is as much a social issue as an environmental one, the social consequences of climate change are still minimized. However, it will impact on human relations, community livelihoods, economical and political processes...

Roger-Marx De Souza, from Population Action International told me that “*CC specialists don't always see the linkages [between gender and CC].[...] These people need to recognize the linkages and see how women are vulnerable.*” In addition, Natalia Kostus from the IUCN told me that climate change is a “*very complex issue*” to deal with for women organizations.⁵⁰ As a consequence, it seems that gender and climate change are both growing ideas in the international debate. However, even if currently, most of the projects ask for a sustainability criteria (mitigation) or a gender criteria, they do not address both issues concurrently.

A) Gender not considered as a cross-cutting issue

When raising the gender dimension of climate change, organizations put forward the cross-cutting nature of gender. According to them, gender is a horizontal issue and should be an essential component of any climate change program. The international community recognizes gender equality as a cross-cutting issue since it touches on general principles as well as democracy and human rights, good governance, children's rights and the rights of indigenous peoples...

Both CC and gender are currently key concerns in many donors' agencies. Even though projects are implementing in both fields, connections between the two are often not being made. As Natalia Kostus from IUCN told me, one major obstacle is that staff working in CC programs often have a background in natural science. They usually are scientists or have a technological or economic approach on CC answers. They are likely to be less aware of the social dimensions,

⁵⁰ Appendix 5 & 6

including the gender dimensions. The GGCA provides then trainings to scientists to guide them and promote gender⁵¹.

Another risk is that when organizations or sectoral sections are in charge of mainstreaming gender in their work, *“a more specific focus on gender equality issues and on women’s rights often falls off the agenda”*. Thus, a *“twin-track approach”* should be adopted (Otzelberger, 2011). It means that a gender perspective should be included in all development projects and that at the same time, organizations should keep on supporting initiatives aimed directly to fight gender inequalities. As an example, by 2006, only 12 per cent of Global Environment Facility (GEF) projects had included social examination at the conception stage. *“In some instances, the lack of adequate gender analysis and awareness led to negative impacts on women”* (Awori, 2009). Between 2003 and 2006, only four out of 36 climate change projects integrated gender in any part. Gender advisers at GEF regret that it is *“impossible to determine exact gender budgets [...] given that gender-related activities are often embedded in a larger project component”*. Gender Action provides the example of the Global Fund to Fight AIDS, Tuberculosis and Malaria. In addition to ensuring gender mainstreaming throughout the project life cycle, it maintains smaller funding opportunities to provide money for projects that focus on tackling women's vulnerability (2009).

Gender equality needs to be treated as a separate but linked issue. Andy Seale, Senior Adviser for Sexual and Gender Diversity at the Global Fund reports that in his organization, gender mainstreaming is perceived by most staff members as a *“soft issue”*. Gender is considered as one criterion amongst others. Global Fund employees are likely to consider gender as an easy issue to avoid (Otzelberger, 2011). Indeed, despite the horizontal nature of gender and its need to be integrated at every step of a cycle to meet success, the reality is that this deep level of gender mainstreaming often does not happen. Usually, a criterion *“satisfaction of gender requirements”* replaces a complete assimilation throughout the project life. In addition, most of the recent research still focus on women and the specific climate impacts on gender. However, many organizations such as UNDP and WEDO consider that taking gender-responsive answers is about understanding *“socially constructed roles and opportunities associated with being a man or a woman and the interactions and often unequal social relations between men and women”* (UNDP, 2009).

Another problem which reveals that gender integration is not fully accomplished is the lack of addressing women's specific needs and capacities. Otzelberger argues that the focus on women as

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victims has led to target them in adaptation and mitigation programmes and in domains perceived as most appropriate such as household energy. It usually means that projects need to ensure “*that a certain percentage of beneficiaries of programmes, projects and policy targets are female*”. However, while recognising women’s particular concerns is a key element of gender-responsive policy, it does not mean that these approaches address substantially specific needs and capacities, as well as unequal power relationships (ibid.)

To conclude this part, the UNDP Gender mainstreaming policy is a great and relevant example of carrying out only half the picture. UNDP adopted in 2009 the use of Gender Marker in all thematic programme areas. This tool rates projects for gender relevance. “*Projects are required to assess how they address differences in the roles and needs of women and men. Quantitative data on the number of women in project staff, project boards and jobs generated by the project are also reported*”. Various practices are used to mainstream gender into adaptation strategies and programming, such as “*conducting gender-sensitive assessments of vulnerabilities, capacities and priorities for adaptation; engaging women stakeholders at all levels in project planning and implementation; and increasing the direct benefits to women of adaptation strategies and measures*”(UNDP 2010). This Gender Marker rates the projects at the output level regarding their contribution for gender equality. It does not mean that projects that do not consider gender in its project cycle will be suspended or stopped. It is not a condition for renewing. Projects are rated on a four point scale, at the output level according to their contribution to gender equality. “*The average gender rating for projects with signed project documents is 1.162*”. It is however still a noticeable change. In addition, with initiatives required to report on gender outcomes, projects' gender consideration is likely to increase.

B) Path dependence and donors' reluctance in engaging in mainstreaming gender

In political science, path dependence means that “*where we go next depends not only on where we are now, but also upon where we have been*”⁵². In this research, donors are one of many organizations which demonstrate path dependence. As mentioned earlier, donors did not fully change their organizations in order to include gender in their policies. Path dependence is a theory to explain how the set of decisions -should we mainstream gender or not- organizations face is

⁵² In *Encyclopedia of Law and Economics*, 2000, Liebowitz, S; Margolis, Stephen, p.981

limited by the decisions they have taken in the past, even though past circumstances may no longer be relevant⁵³. Policy Science scholars developed many reasons to explain the difficulty of changes in the institutions: individuals' role within the organizations, initial choices of institutional structure...⁵⁴

Indeed, staff capacity, institutional resources and strategies are ones of the main reasons that prevent gender mainstreaming in donors' work. Otlzelberger explains that many organizations stated that *“a lack of adequate financial and human resources dedicated to the issue is a substantive barrier for gender mainstreaming in climate change”*. As mentioned earlier, to mainstream gender across their organisation, some agencies have assigned gender advisers in each department and/or country office. Others have organized networks or teams of gender *“supporters”* which is a less costly option. However, due to unclear mandates, inadequate amount of time allocated to gender capacity and the lack of awareness among their colleagues of their role and work, these *“gender champions”* cannot contribute to establish gender capacity (Otlzelberger, 2011).

Donors have begun to mainstream gender but they usually do not pursue effective strategies. Moreover, donors do not lack gender or climate change capacities (which means educated staff, specific knowledge and resources). However, they often lack the *“capacity, resources and clear mandates to connect them”*. It means that even with a strong gender policy, gender integration in other portfolios, such as climate change frameworks is lacking. This is partly due to organizational issues, technical barriers and lack of communication between climate change and gender experts. This is even due to a lack of clear gender mainstreaming strategies, a lack of clear mandates, adequate human and financial resources allocation. Eventually, no strategy is set up to *“identify gender entry points across climate change policy work and programme cycles”* (Otlzelberger, 2011).

Otlzelberger enumerates recommendations for donors to integrate climate change in their policies. First, their climate change policies and programmes should be based on the key principles: *“i) neither impacts of nor responses to climate change are gender-neutral, ii) addressing gender is about addressing unequal power relationships between women and men, iii) addressing the gender dimensions of climate change and its responses entails working with men, women, boys and girls, iv) gender matters at all levels and scales and in all sectors, and v) gender relations are context-specific, change over time and interact with other social variables such as ethnicity, caste or*

53 Path dependence was first an economic theory. Paul Pierson tried to institutionalize it in the policy science field. Paul Pierson, *“Increasing Returns, Path Dependence and the Study of Politics”*, Jean Monnet Chair Paper n° 44. Florence, Institut universitaire européen, Centre Robert-Schuman, 1997.

54 More information about path dependence in this critical approach by policy science researchers, Palier Bruno, Bonoli Giuliano. *Phénomènes de Path Dependence et réformes des systèmes de protection sociale*, In Revue française de science politique, 49e année, n°3, 1999. pp. 399-420.

wealth” and it thoroughly considers key issues such as risks, opportunities, needs and preferences of men and women.

At a more practical level, they should participate in the global climate change debate, promoting gender considerations and accountability for CEDAW and the Beijing Conference in the international CC negotiations. Donors also should institutionalize the existing gender commitments, create organizational environments for comprehensive gender policies as well as providing adequate tools. Donors also should insist on filling the knowledge and practice gaps, particularly in domains where the nexus between women and CC is not completely obvious, such as energy access.

Every project should be evaluated and monitored using disaggregated data. Programmes which are already implemented have to address the gender gap in project cycles, gender analysis of the gender inequalities and women and men’s different roles, preferences, needs and capacities should be undertaken. Eventually, emerging funds and policies have to integrate gender into results framework. This is extremely important regarding path dependence.

Numerous reports state recommendations for donors, stakeholders, countries, etc.. However, what is lacking is a strong commitment to redefine strategies and institutions to tackle gender issues within the climate change problematic. Climate funds must develop and implement a strong and comprehensive gender policy. In its research, Gender Action researchers found out that non-climate funds succeeded in mainstreaming gender in their programmes. They state many recommendations to demonstrate what should mandate climate change gender policies. At a theoretical level, GA argues that gender policies should assume a human rights-based framework instead of a simple “*instrumental*” perspective. That would lead to a proactive answer to ensure equal access to resources. Climate fund gender policies should mandate a commitment to the application of a gender perspective to all activities⁵⁵. It is also essential to develop an action plan or gender mainstreaming guidelines within the donors’ organization (GA, 2011). Non-climate funds also engaged in a strong advocacy strategy to emphasize the importance of gender mainstreaming.

The fact that during the COPs, gender considerations are treated in “*side events*”, where main participants are NGOs and UN agencies, is a great illustration of the failure of making gender a core issue. Promoting gender-responsive international negotiations means including gender in

⁵⁵ It is already implemented in two non-climate funds, GAVI and Global Fund.

an horizontal sense as a cross-cutting issue. To conclude, a certain level of awareness, pilot projects, commitments or projects exist. However, gender is not fully integrated into donor policy and commitments on climate change. A lot of work to be achieved remains. Despite international commitments such as the Beijing Platform for Action, the promise of donors, UN agencies, implementers and governments to mainstream gender in their programmes does not reflect in climate change programmes and policy for developing countries. To ensure that gender-responsive work goes further than simply creating a new ad hoc programme initiative, donors need greater accountability with regard to these international agreements and frameworks. Global policy dialogue started mainstreaming gender, donors have to follow the update on the status of gender in global responses to climate change.

II / Ongoing challenges

Even though the contextualization of the gender dimension of climate change has led to solutions shaped against this framework, climate change and gender are not yet considered as related issues. Facilities targeting women in projects of rural electrification such as solar hybrid systems have been established and other concerted efforts have been made within existing frameworks to reach women. However, even mitigation and projects considering gender can fail. There are essential but not sufficient factors. For example, while solar home system electricity might benefit to households, the costs are quite high compared to conventional electrification systems.

This part reviews the challenges to come for engendering climate change. It is a hard path for organizations and for women before they can reach equality in the climate change regime. The roots of their action and advocacy work are sometimes questioned. First, knowledge on the subject is still insufficient and does not lead to implementation. This is mostly due to lack of practical knowledge. Second, some are still questioning the relevance of connecting gender with climate change.

A) Gap between knowledge (research) and facts (action)

The lack of reliable information can be a big obstacle when promoting gender equality. Even if several NGOs and the biggest UN agencies conducted research about the relation between gender and climate change, little research is conducted at a local level.

Gender and climate change is no longer an unexplored area. However, there are still wide knowledge gaps, especially concerning the social impacts of climate change. In sectoral areas such as food security, agriculture and water but also in social sectors like health and education, a wide range of research programs has been done by civil society and multilateral organizations working on gender. Nonetheless, where gender dimensions appear less obvious, much research remains to do. This is the case for transportation, housing and also energy access (Oztelberger, 2011).

As mentioned earlier, the advocacy work to promote gender mainstreaming in the climate change work is very important. Organizations organized themselves in platforms. They participate in international negotiations. They try to implement gender policy within their organization.

However, to be relevant on the field, at the local level, research need to be practical and to provide implementation skills and capacity-building. Local organizations and implementing agencies need trainings, tool kits etc.

B) Reconsidering the connection climate change/gender itself

When I asked Roger-Mark De Souza from Population Action International whether climate change was more an opportunity or a challenge for their work, he told me that setting a pre-statement was necessary before any answer. Indeed, PAI is confronted in its advocacy work in the US to climate change denial. Since “*a number of US policy makers have decided that CC does not exist*”, they have to adapt their advocacy work. Furthermore, the field of reproductive health and family planning is also controversial⁵⁶.

While the connection between climate change and gender is gaining recognition, controversial aspects of such a connection are discussed. For example, Sam Wong conducted a research in 2007 in Chokoria, South Bangladesh⁵⁷. He concludes by saying that linking gender with climate change might not lead to more gender equality. The project was about providing a solar home system to a Hindu rural community. His three main conclusions are that : enabling women to participate in decision-making at the community level did not lead to “*break gender stereotypes*”; power structures were not modified by the increased participation of women; “*technology may have a positive, as well as negative, impact on different aspects of women’s lives and gender relations*”. In his case study, he noted that providing solar lighting enabled women to engage in income-generation activities but that it had created “*a sense of competition among villagers and put additional workloads on women*”. The project organizer, a Dhaka-based NGO, on behalf of UNDP did not include the indigenous leaders to join the committee, blaming them for causing poverty and not being democratically elected. The indigenous leadership was also male-dominant. The sponsoring organization (UNDP) and the NGO decided to challenge the indigenous leaders to improve local governance (and encourage the involvement of women). The outcome of the project was very significant. Before the solar home system, villagers used to rely on kerosene and firewood for lighting. However, the light was so dim that any activity had to stop before 8 pm. Now, women are able to involve in income-generating activities in the evening, such as net-making or repair.

⁵⁶ Appendix 6

⁵⁷ Sam Wong, Climate change and sustainable technology: re-linking poverty, gender, and governance Sam Wong, Gender and Development 17(2), pp. 95–108, March 2009.

Since these two activities are considered as feminine, men did not engage in these activities and use the lighting to pursue leisure activities. Another problem was that, at the end of the project, 80 per cent of the households had not paid the fees. There was then a problem in terms of financial sustainability.

Sam Wong also notes that the project organizers did not pay enough attention to the complexity of gender dynamics. Indeed, empowerment cannot be imposed by project planners. Another problem found in many projects is that the involvement of women in decision-making process reproduce the inequalities and gender stereotypes. In the earlier example, Sam Wong noted that *“from the project organizers’ perspective, women possessed better social skills, so they, rather than men, were seen as more suitable to collect the fees. [...] In contrast, women, from their perspective, were perceived as either technically incompetent, or lacking interest in mechanical things [so they could not participate in such activities].”*

Sylvia Chant and Matthew Gutmann (2000) alert that *“conducting gender research can easily become women’s studies”*. Such research would not take into account how social structures shape gender relations. Another danger is to consider all women as victims (in opposition with man as “perpetrators”) and to gather women, as well as men, in a homogenous group. Gender dynamics are complex and need to be deeply studied before any implementation work. Without a full research, projects can have unintended consequences. France Cleaver (2003) warn that *“increasing women’s participation, without considering their multiple obligations and workloads, can cause more harm to women”*.

C) About the relevance of gender mainstreaming in energy programs

The relevance of gender mainstreaming in the energy field is also interrogated. As stated earlier, in developing countries, women are usually in charge of securing fuel for household energy and cooking. So they need to be associated to any project in the energy field. Njeri Wamukonya notes that *“the contextualization of the energy problems as having a woman dimension”* has led to solutions shaped against this framework⁵⁸. Thus, advocacy and implementing have focused in *“a woman-targeted approach”*. Regarding energy concerns, it meant for example implementing decentralized electrification technologies and setting up micro -financing schemes to provide credit

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to women for energy and other needs. However, in many homes, men still appear to have more decision-making power, and household energy needs may be given lower priority than women would wish.

Njeri Wamukonya says that donors and governments created and launched projects on tree planting and improved stoves. To them, women were considered as a special target group to direct aid to. Wamukonya notes that “*stoves in particular received a lot of attention from donors*” and women were regarded as the main beneficiaries. However, the “*project performance was not particularly good*”. This was due to poor targeting -exclusion of women- and inappropriate technologies. Despite the fact that the poor performance of such projects has been fully documented, these projects have continued to seduce donors and attract support. Research is lacking about biomass and its use by women. It is considered as an household issue, and “*thus not given sustained attention*”. Once again, women organizations are asking for a rights-based issue, in which electricity would be considered “*as a basic good necessary to empower women*”. Furthermore, while the idea that rural electrification would meet women’s needs for labor-saving and for time-saving is largely spread, “*rural electrification [...] has not necessarily resulted in extensive use of electricity [...]. In the majority of electrified households, only lighting, radio and TV services are met with electricity while most other energy needs continue to be met with other energy carriers*”.

Some are also questioning women as decision-makers. Indeed, one of the strategies was aimed to increase women’s inclusion in decision-making. The underlying assumption is that women participating in decision-making would lead to address women’s energy needs more effectively. In a few years, the number of women included in decision-making has risen. However, it does not mean that this has resulted in gender issues being addressed. Women working as energy engineering are likely to undermine gender-related issues. Moreover, the proportion of women professionals in the energy sector is relatively low, especially in developing countries. Thus, even with “*affirmative action*” policies or “*quotas*” reserved for women, it is difficult to get qualified people. Furthermore, according to Wamukonya, having women on board should not be considered as a pre-requisite for addressing gender concerns.

According to Njeri Wamukonya, the gender approach “*may have raised some issues to the forefront such as the drudgery suffered by women in gathering firewood. But in contextualizing and*

defining the energy problems from such perspectives, this approach may have masked the real issues and misdirected resources". Indeed, many projects focused more on the woman herself than the environment she is in. That is why full research is necessary. Considering gender is an input to development but an insufficient condition for development.

In this fourth chapter, we discussed the ability of climate change mitigation or adaptation projects to lead to gender equality. Even though the urgency of climate change and its increasing recognition may lead to projects implementation, challenges are enormous. The lack of priority for social issues, the path dependence constitute main concerns for donors and implementers organizations as well as the cross-cutting nature of gender. At the community level and in the US, the lack of knowledge about climate change, and in the worst-case scenario, its denial does not help the development of a strong nexus gender/climate change.

The second part of the thesis aimed to answer the following questions : Did women NGOs succeed in promoting a gender sensitive answer to climate change ? Are mitigation and adaptation programs gender sensitive ? The balance is not very clear yet. Gender mainstreaming in climate change programs is still a work in progress.

Conclusion and recommendations

The purpose of this research was to investigate how gender considerations were incorporated in the mitigation and adaptation to climate change projects. It also aimed to discuss strategies set up by organizations to incorporate gender in climate change answer.

The sense of urgency embedded in the discourse of climate change has given women organizations a sense of optimism, with the fact that it is now a key issue in the development area. The urgency of climate change and its increasing recognition made it a priority in donors work. Projects implemented nowadays have to respect a “*sustainability*” criteria. Organizations working for women empowerment, allied with environmental organizations decided to seize the climate change issue and to bring gender mainstreaming within the debate. Their idea was that climate change answers could participate in achieving gender equality. Furthermore, involving women in climate change answers brings the potential of redefining their roles and re-positioning culturally determined roles and inequalities. Depending on how women respond to natural disasters and climate change, organizations hope that it could give women a unique opportunity to challenge and change their status in society. Following this advocacy work, many projects started to target women and associate them to the project. In the field of energy, women were included as participants and targets, in projects of improved biomass stoves, rural electrification etc.

However, even though organizations took advantage of this “*window of opportunity*” to bring the gender issue on stage, at the global, national and local levels, the gender-climate change nexus did not influence the general framework of climate change answers. Challenging gender inequalities is very complex and many organizations do not own the tools to do it especially when they also deal with a composite issue such as climate change (Kostus, 2011). Despite clear evidence that women can contribute and be turned into agents in adapting to and mitigating climate change, they remain in disadvantaged positions in terms of access to resources and decision-making process. While some are still denying the climate change or questioning the relevance of gender mainstreaming, knowledge is increasing. Nonetheless, from the research to the action, there are still gaps to fill.

Lessons learned and recommendations

Although lots of research has been produced about the connection between gender and climate change, from different organizations, two things seem to be missing to turn this knowledge into action. First, knowledge has to be more specific. Some areas remains unexplored, such as transportation and infrastructure. As of the incredible diversity of culture, local research about roles, needs and interests of men and women in communities need to be conducted before starting any project. Second, it has too be more practical. Both the IUCN and UNDP tool kits are example of very successful tools for implementing agencies.

Gender equality can also sometimes be turned into a feminist issue. However, considering gender is about challenging inequalities and highlighting women as agents in adaptating to and mitigating climate change. However, even though women are more likely than men to be in poor and discriminated in terms od access to resources, this is not a general statement. Moreover, when it is true, women are not less or more able than men to address climate change. FAO have fund than in some cases men may be more vulnerable than women. More importantly, that men's and women's capacities and strategies to tackle climate change are often complementary.

Organizations that started promoting gender mainstreaming have to make sure that every aspect of climate change integrates gender. Indeed, Ms. Reda, from Global Environment Facility notes that it is easier to integrate gender into adaptation programs than in adaptation programs. Indeed, adaptation is related to states and people's capacities to respond to impacts of climate change. The bigger challenge lies in climate change mitigation. It is actually to take anybody -women or men- for responsible of emetting greenhouse gases. This highlights the assumption that mitigation interventions should theoretically benefit everyone regardless of their sex. It also reinforces the erroneous perception that certain types of projects do not have differential impacts on men and women.

Using gender to help developing countries mitigate the impact of climate change and adapt to new weather and agricultural patterns may be well-intended. It also gives a spirit of "*killing two birds with one stone*". However, the blind faith in feminism or gender equality is disturbing. Indeed, many programs still ignore the principles that should guide any interventions : culturally sensitive, context-specific and legitimate.

The urgency of climate change is both an opportunity and a challenge. Decisions have to be made very quickly as at the same time the world is changing. Organizations do not take the adequate time to consider the social aspects of climate change, including gender. Global Environment Facility also regrets “*double mainstreaming*”. Indeed, GEF is primarily trying to “*mainstream the environment,*” and gender is considered as an “*added layer of complexity*” which is often subordinated to other concerns (GEF, 2008).

At the end of this research, it seems that gender equality won't be achieved through climate change answers policies. However, there is hope since many donors and implementing agencies adopted a gender mainstreaming practice. Gender equality and climate change are both challenging issues. To achieve suitable answers, organizations implementing mitigation or adaptation policies need the appropriate -human, financial, material- resources to make the appropriate decisions. However, time and resources are usually lacking. An emphasis has to be put on gender if we don't want women to become the real losers of climate change. Women organizations should gather with environmental ones and share trainings about their linkages to reach a common goal : promoting gender equality through achieving the fight against climate change.

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