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CLIMATE ADAPTATION & GENDER - AN OVERVIEW

SUMMARY

This briefing note is one of a series, produced by WWF-UK, to help develop understanding and awareness around the importance of gender analysis in natural resource management programmes.

The briefings, include summaries from case studies around the world, looking at lessons and experiences from integrating gender perspectives to a lesser or greater extent in programmes. The format is deliberately succinct and not too technical to enable the reader to access an initial understanding of natural resource-gender dynamics.

Other briefings in the series can be found here:

wwf.org.uk/what_we_do/making_the_links/women_and_conservation

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Climate change not only affects women's physical security, but it also impacts negatively on their work burdens and opportunities through changes in their livelihoods. They may also be impacted by a lack of access to adequate (early warning) information, education, training and facilities to cope with disasters that result from climate change.

Women should be at the centre of adaptation programmes because they are a particularly vulnerable group owing to their limited access, control and ownership over resources, unequal participation in decision and policy-making, lower incomes and levels of formal education, and extraordinarily high workloads.

They also need to be at the heart of adaptation efforts because of the significant roles they play in agriculture, food security, household livelihoods and labour productivity – and their reliance on natural resources. Within these critical roles, women have valuable knowledge and skills in managing natural resources. They're often at the front-line of adaptation to climate change, because of the high rate of men migrating away from communities.

As such, it's important to increase women's participation and meaningful inputs into discussions, dialogues, policy-making and institutions that focus on adaptation to climate change.

Finally, it's important to note that a gender approach to climate change shouldn't simply be about women and girls. Men and boys,

the young and the old, are also vulnerable to the impacts of climate change but often in different ways. These need to be identified and communicated.

BACKGROUND

Climate change is increasingly recognised as a major security issue for humankind – one that poses serious global threats. The impact will be most severe for the world's poor and marginalised communities who often live in stressed environments and/or have fewer means for coping. Women are disproportionately represented among the world's poor and as a result are most likely to bear the heaviest burdens of climate change.

Climate change poses a serious threat to sustainable development and undermines natural resources. Core dimensions of women's livelihoods include agriculture, food and water security all of which will be impacted by climate change. With few alternatives to turn to, women may be exposed to increased hardship to deliver daily essentials and sustain their livelihoods

There are significant differences in the rights and opportunities available to men and women (e.g. rights to land and resources, and opportunities to participate in and influence household and community decision-making). As such, climate change will impact men and women in different ways. This is known as a 'gender-differentiated impact'. Therefore interventions aimed at addressing climate change impacts must include a gender perspective. Disasters and impacts attributed to climate change often intensify existing inequalities, vulnerabilities, economic poverty and unequal power relations between men and women.

However, women aren't just helpless victims of climate change, they are also powerful agents of change and their leadership is critical. Women can help in dealing with issues such as energy consumption, deforestation, burning of vegetation, population growth, economic growth, development of scientific research and technologies, and policy making, among many others.

HOW DOES CLIMATE CHANGE AFFECT MEN AND WOMEN

Climate change affects everyone but to different extents. Climate change magnifies existing gender inequalities¹¹, reinforcing the

¹¹ Gender equality is the concept that all people – men and women – are free to develop their personal abilities and make choices without the limitations set by stereotypes, rigid gender roles, or prejudices. Gender equality means that the different behaviours, aspirations and needs of women and men are considered, valued and favoured equally. It doesn't mean that women and men have to become the same, but that their rights, responsibilities and opportunities will not depend on whether they are born male or female. (Training Manual on Gender, IUCN/UNDP)



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disparity between women and men in their vulnerability to and ability to adapt. In every society, women and men have different roles inside and outside the household. Women and girls are likely to experience worsening inequalities as a result of climate change impacts through their socially constructed roles, rights and responsibilities, and because they are often poorer. At the same time, it's largely the role of women to provide the food, fuel, and water and care that the family needs, in addition to earning cash. In communities where this is the case, women are likely to have:

- Greater reliance on diminishing natural resources – such as rivers, wells, reliable rainfall, and forests.
- Fewer physical resources – such as land, fertilizer or irrigation, and fewer assets (such as machinery or a bicycle) to use to make money, or to sell as a last resort in times of crisis or due to external events like severe weather events.
- Fewer financial resources – little cash, savings or access to credit, and less access to markets that give a fair price for their goods.
- Less powerful social resources – owing to social and cultural norms that limit their mobility and their voice in decision-making, reinforce traditional roles, and put them at risk of violence.
- Fewer human resources – due to having less education, fewer opportunities for training, and less access to official information.

For these reasons it's now widely acknowledged that negative effects of climate change affect women more acutely.

Climate change is likely to exacerbate previously existing patterns of discrimination that, on average, render women more vulnerable to fatalities and reduce their life expectancy, especially for economically poor women. For example, it is estimated that women and children are 14 times more likely to die in natural disasters. This may be due to cultural norms in some countries that limit women's access to or where women are not taught skills like swimming or climbing trees. At the same time household and childcare responsibilities can make it difficult for women to seek safety in a timely fashion and as a result women may suffer greater injury and fatality in climate change-induced natural disasters.

Women's role as principal producers and providers of staple foods also places additional strain on them in the face of climate change. The role of rural women in agricultural production is essential for the nutritional status of families and can be an important source of income. The agricultural sector is very exposed to risks of drought and uncertain precipitation; this means that climate change endangers food security as well as the well-being of families and their capacity to survive. However, female farmers are often overlooked in agricultural policies and strategies, or those relating to climate change. Furthermore, women receive extremely limited extension



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services, which might help them address how to cope with changing weather conditions and climate change.

Coping strategies are often also different for men and women with women contributing significant additional labour to compensate for diminishing resources or threats to livelihoods from climate impacts. For example, climate change-induced flooding, drought, and changes in forest management are over time likely to increase women's workloads in domestic fuel and water collection in some regions. In addition, women's workloads can also increase when livelihoods are displaced by climate impacts forcing men to migrate in search of work.

THE IMPORTANCE OF GENDER IN CLIMATE ADAPTATION

Gender is a critical factor in understanding vulnerability to climate change, identifying adaptive capacities, resources and making appropriate decisions to respond to climate change. Effective adaptation must promote gender equality and women's empowerment. Because climate change affects women and men differently, a perspective that recognises and responds to these differences is essential.

There are four major opportunities for addressing gender differences and inequalities in climate adaptation programmes and policies:

- Understanding and addressing gender-specific use of resources that can degrade the environment (e.g. deforestation due to inappropriate agriculture practices or weak tenure rights). A lack of understanding of gender within resource management and climate change can impede efforts to achieve wider goals like poverty reduction and sustainable environmental development.
- Recognising that women are already more vulnerable to poverty than men and therefore have specific needs in climate change-driven scenarios (e.g. floods, drought, disasters). To reduce the vulnerability of women, and increase the capacity of society as a whole to adapt to a changing climate, women should be central to sustainable adaptation strategies. Gender-sensitive responses require an in-depth understanding and analysis of existing inequalities. Women's responsibilities and knowledge about the environment and the challenges they face need to be a central part of an adaptive response to a rapidly changing climate.
- Acknowledging and addressing women's unique physical vulnerabilities to climate change and the need to include them in the design of adaptation programmes such as early warning systems to reduce human impacts, especially for women and children, of severe weather events.



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- Identifying women's particular skills and capacities in various aspects of their household livelihood strategies and natural resource management that lend themselves to climate adaptation.

Strengthening the quantity and quality of women's participation in decision-making at all levels in climate change adaptation. Women are more likely than men to be absent from decision-making and strategies for climate adaptation, whether in the household or at community, national or international levels – either because their contribution is not valued or because they don't have the education, time, confidence or resources to contribute.

climate action. Applying gender analysis to inform the design of responses to climate change can help identify ways to mitigate risks that may exacerbate gender inequality. It can also highlight opportunities to enhance positive outcomes.

Women may be particularly vulnerable to climate impacts, but their knowledge and use of natural resources also make them key to adapting to the new climate reality. With women at the heart of adaptation, the whole community will become more resilient.

RECOMMENDATIONS

- Improve understanding and awareness of existing inequalities between women and men, and of the ways in which climate change can exacerbate these inequalities (i.e. better understanding of the differences between how men and women use natural resources).
- Understand the ways in which the differences between men and women and their use of natural resources can intensify the impacts of climate change for all individuals and communities.
- Understand the role of women in adaptation to climate change; understand power relations between and among men and women, and the way that climate change can exacerbate and widen these relations.
- Design adaptation programmes (e.g. managing natural resources) in ways that are sensitive and responsive to the different and multiple roles women and men play in various spheres of natural resource management, as well as in their households, communities, livelihoods, and customary and statutory institutions (local, national, regional and international).
- Ensure increased participation and inputs from women in decision-making processes and negotiations and in policy-making, related to climate change issues, in local, community, national, regional and international institutions.



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Climate change and gender in Nepal:

THE IMPORTANCE OF BRINGING GENDER INTO THE MAINSTREAM OF CLIMATE CHANGE POLICIES AND PROGRAMMES

BACKGROUND

In 2008, the Women's Environment and Development Organisation (WEDO) commissioned a study of climate change and gender in Nepal. The result was an input into a workshop on how to bring gender into the mainstream of climate change policy-making and programmes.

The study outlined that climate change is having a major impact on Nepal. Changes in the fragile ecosystems are affecting people's livelihoods, which are highly dependent on agriculture. Climate change clearly affects all Nepalese people, but not everyone has the same capacity to adapt. Gender inequalities are among the factors limiting the capacities of women to cope with and respond to climate change.

GENDER AND THE IMPACT OF CLIMATE CHANGE

The study found climate change, which is triggering more frequent extreme weather events such as droughts and floods, is affecting Nepal's ecosystems and depleting natural resources. This in turn has a negative impact on food production and increases food insecurity. The projected impacts on men and women in Nepal include:

- Water, fodder and fuel wood are becoming more and more scarce as a result of climate change, affecting women who collect these resources. It is expected that such tasks will take even longer in the future, which will considerably increase women's workload.
- Agricultural practices may have to adapt to less snowfall and longer dry periods due to climate change. The burden will fall mainly on women to adapt and adopt new production practices and the use of new crops suited to dryer conditions.
- Women have limited access to information and training, which may restrict their capacity to adapt.
- Men, as breadwinners, also bear a lot of pressure, especially when they're unable to provide for their families' needs. In Nepal, more and more men are leaving their villages, looking for any kind of employment in the cities or abroad. Besides the immediate economic hardship, they also face a lot of mental and emotional stress.
- For women, the result of men's migration is usually an increased workload and more responsibilities at a time when it's becoming more difficult to fulfill these.

CLIMATE CHANGE ADAPTATION AND GENDER

To ensure strategies that offer efficient ways of adapting to climate change, policymakers must acknowledge the different roles played by women and men, how they use natural resources, and what their adaptation capacities are — and hence what their different needs are.

In Nepal, many factors hinder women's adaptation capacities, increasing their vulnerability. Nepalese women play an important role in maintaining households and communities and in managing natural resources. However, their role is seldom recognised, and their perspectives, needs and interests aren't properly taken into account in development and environmental policies and strategies.

Programmes and policies need to recognise that women and men are likely to face common challenges, but that their capacity to react, to adapt, or to change will not be the same, owing to their different positions in society.

Adaptation strategies need to:

- Incorporate a gender perspective, recognising the different roles of men and women.
- Recognise that women and men have different roles in the society, face different challenges, and demonstrate different reactions and methods for coping.
- Involve women in order to tap their rich knowledge and experience, to enhance food security. Women might have a different perspective and innovative ideas for helping people to cope with climate change effects.
- Pay specific attention to both women and men's needs in order to reduce their vulnerability and improve their adaptation.
- Recognise that increasing agriculture production and food security may reduce the incidence of men's migration, hence ensuring a better balance in men and women's workloads, and reducing the potential for women's burdens to increase owing to migration. ,
- Realise that adaptation to climate change will require the development of assets and the empowerment of women, increasing their capacity to access more opportunities, new livelihood options and appropriate technologies.
- Recognise that women have a role to play in global climate change adaptation negotiations and strategies. Focusing on both women and men's needs and capacities will increase the efficiency of these strategies.



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SOURCE

Case Study – Gender and Climate Change in the Hindu Kush Himalayas of Nepal. Brigitte Leduc, Senior Gender Specialist (ICIMOD), with Arun Shrestha, ICIMOD Climate Change Specialist, and Basundhara Bhattarai, ICIMOD Gender Specialist. Commissioned by WEDO (2008)

The CRiSTAL community-based risk screening tool: local strategies for coping with drought in Mali

BACKGROUND

The Community-based Risk Screening Tool – Adaptation and Livelihoods (CRiSTAL) is a screening tool that's designed to help project designers and managers integrate risk reduction and climate change adaptation into community-level projects.

The CRiSTAL approach is also a project planning and management tool that provides a gender-specific vulnerability analysis for different parts of the population... This highlights the specific coping strategies of women, and results in clear pointers on how gender-specific measures will need to be incorporated into projects.

Between 2004 and 2006, an interdisciplinary team conducted a series of field tests on completed or ongoing natural resource management projects. In the Sahel in Mali, the CRiSTAL showed that rural communities have developed coping strategies for extreme climate events such as droughts.

USING CRiSTAL IN MALI

Inter-cooperation, a Swiss NGO, used the CRiSTAL approach in Mali as part of its work to strengthen local capacity in climate change and disaster risk reduction. The tool produced answers that enabled project planners and participants to better understand the threats to local livelihoods posed by current climate risks, and the community's existing coping strategies. The approach also allows for gender-specific analysis on the differences in vulnerability among the rural population.

Simultaneously, the analysis raised awareness among stakeholders at the national, regional and local level about climate change issues.

ANALYSIS OF WOMEN'S PARTICIPATION

Although women didn't have their own workshops during the CRiSTAL process, the project did pay particular attention to women's participation:

A female programme officer, who was skilled in addressing sensitive issues, was employed to be in charge of the region's work.

The CRiSTAL analysis focused on gender-specific distinctions between livelihood activities. The tool highlighted that women have a key role in certain activities -- such as cooking, collecting dry firewood and shea nuts, and shea butter extraction. The management



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of agricultural land, and the various activities related to agroforestry parks, are run entirely by male community leaders.

The tool highlighted that women in the community generally don't own land and have hardly any rights in relation to the management of natural resources such as trees, despite often working in the fields. The power that the male landowners have over the natural resources means that the poorest groups, in particular women, are doubly excluded – from both the land and its resources – and are thus more vulnerable.

GENDER AND CLIMATE CHANGE – COPING STRATEGIES

The Sahel communities have always struggled with the region's semi-arid conditions. Climate hazards such as droughts, lack of rainfall during the rainy season, and irregular rainfall are a part of daily life. The CRiSTAL analysis identified the following coping strategies for women:

- Due to food insecurity in the region, generally caused by drought, women in Mali have always stored their harvest separately from the family. These products are then used during difficult periods when the harvest made at household level is insufficient.
- Selling firewood, or chickens and goats, are other coping strategies that women use to get through difficult periods.
- It remains an exception, but it's become more common for women in peri-urban areas to try and form associations to gain access to land by renting or purchasing plots. Women will even buy land from their husbands for agricultural production, and try to get micro-loans from banks or micro-finance organisations.

LESSONS LEARNED

- Better collaboration is needed to deal with climate risks, reaching beyond established gender roles in agricultural and livelihood practices. Sharing the risks of production between all members of the household is a strategy for dealing with climate insecurity.
- The impact of climate change will worsen the exclusion of women involved in agriculture, due to their lack of fertile land. Particular support has to be given to women so that they not only have access to natural resources, but can also make decisions about the management of trees upon which they rely for fuel wood and other purposes – for example multipurpose tree species.
- Gender inequity has a negative impact on the management of the land and the agroforestry parks. The clarification of tenure and property rights at the local and national level will

be essential. Local communities have some coping strategies. However, these won't be sufficient if current conditions continue. Additional support from the government and NGOs is needed to protect rural communities.

SOURCE

Gender Perspectives: Integrating Disaster Risk Reduction into Climate Change Adaptation. Good Practices and Lessons Learned.
Switzerland: UN/ISDR. ISDR (2008)

Climate adaptation and gender: a women's mini-farm Burkina Faso

BACKGROUND

From January 2008 until December 2010 SOS Sahel (FIIMBA)² supported a sustainable agro-pastoral production project in the province of Gnagna, Burkina Faso.

The project supported a women's mini-farm system³ that used technology to boost adaptation to climate change and improve yields from agro-pastoral production. It also implemented activities that aimed to enable women to generate income, which would allow them to participate more in the project. This was designed to help ensure the sustainability of these activities when the project came to an end.

The project mainly involved a cattle credit facility. It aimed to provide an alternative way of reducing households' vulnerability to the effects of climate change that put harvests at risk.

The project's main components were:

- **Capacity-building and equipping.** This included help with the construction of zai pits, stone walls and half moons for soil and water conservation, support to improve seeds and soil fertilisation, and support in building and manure pits for the Micro-credit. This consisted of a loan to each woman for cattle-related activities (buying calves, fattening them up, and selling them after six months).
- **Contract reforestation.** This was aimed at anyone who voluntarily reforested land and maintained it for two years. After two years, a sum of money was awarded based on an assessment of the survival rate.

Support consisted of advice, technical monitoring, training, the provision of equipment to conserve water and soil, and water- transportation equipment kits (water trolleys, shovels, wheelbarrows, picks, etc.), transportation of stones, cattle credit, and the stabilisation of manure pits with cement.



² The Fiimba association has 8,000 members, of whom 7,752 are women, and 190 member groups within the province of Gnagna.

³ The term 'mini-farm' refers to a family farm where agricultural activities are carried out using various techniques (zai pits, half moons, stone walls, manure pits) and farming and livestock activities are integrated so that the cycle is not interrupted.

• ANALYSIS OF PROJECT IMPACT FROM A GENDER PERSPECTIVE

The project identified that women are vulnerable for various reasons:

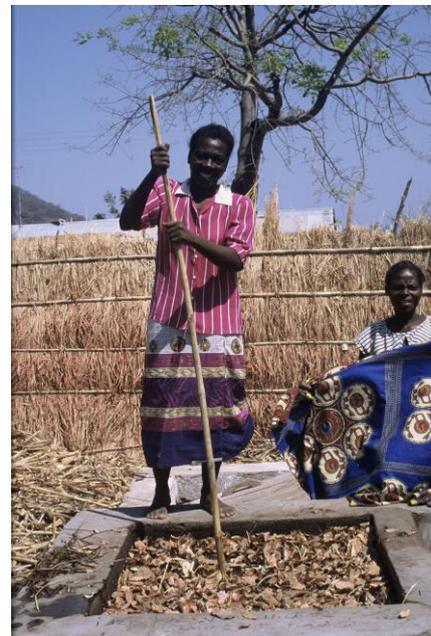
- A heavy dependency on the natural resources most affected by climate change (soil, water); a lack of access to and control over the main resources (lack of access to land ownership, a good education, agricultural training, the appropriate tools or other inputs, credit, etc.).
- Their excessive workload and responsibilities don't allow them time to receive training or to become better informed about climate change and its consequences.
- Their lack of participation in decision-making at all levels (family, community, regional and national), which means that their specific needs aren't taken into account.

The project aimed to initiate practices that produce positive results, giving women improved access to resources such as tools and training. It also aimed to make it easier for women to obtain credit by belonging to an association.

However, the project didn't include a gender perspective in its analysis, nor its implementation. The project's target group consists mainly of women, but the activities it supports and facilitates (cereal growing and cattle rearing) are controlled and managed by men. As a result, its impact on women was mainly negative, creating excessive workloads for them while men reaped the benefits.

The main project outcomes were:

- The project's target group consisted mainly of women, but the activities it supported and facilitated (cereal growing and cattle rearing) were activities controlled and managed by men.
- Women received training on how to carry out certain water and soil conservation (WSC) techniques and were responsible for repaying the loan, but the male head of the family benefited most from the project. The WSC work was aimed at the family cereal growing farm, which is owned by the men. So the men benefited from the WSC work carried out by the women, as well as the organic fertiliser the women produced, while also controlling and making all the decisions about the cereal growing and controlling the profits from cereal sales.
- With regards to credit, the women received a loan with which to buy calves. Women are responsible for rearing the cattle, but it's the male heads of the family who make the decisions and control the income from sales, since it's the husbands or grown-up sons who go to the market to buy the animals -- and the husbands decide when and at what price to sell. Women have no control over this activity or the income it produces.



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Measures targeted at men, which were implemented to adapt agriculture to climate change, aimed to improve the production of cereals intended for human consumption. Using zai pits, stone walls, fertilisers or short-cycle seeds, farmers managed to obtain better cereal harvests in regions with adverse weather conditions. However, measures of this type aren't aimed at women, who don't have access to good-quality land or legal ownership of the land. There was only one practice identified, in the mini farms in Gnagna, in which women received some inputs and the technical training and support they needed to apply soil conservation techniques. But even then, these techniques were implemented on the family cereal farm, which is owned by the male head of the family.

However, the project did have a positive impact in terms of participation. Women's participation in the community increased when they were affiliated with an organisation to carry out a productive activity. Women who belong to an organisation and contribute resources also see their position within the family improve, and the men consult them more often on decisions that affect the family.

LESSONS LEARNED - THE IMPORTANCE OF A GENDER PERSPECTIVE

Overall the project had a negative impact on women, and increased gender inequality as a result:

- Although the project beneficiaries were women, the project maintained a stereotypical vision of the reproductive role of women. The project met women's practical or immediate needs, as well as satisfying the needs of the family through the work done by women. However, the project didn't address gender issues, which seek to meet women's strategic (and longer-term) needs of power, access and control -- a process that seeks equal development for men and women by transforming power relations.
- Without the integration of a gender-based approach, the mini- farm project in Gnagna had a negative impact overall. The project accentuated the inequality between men and women, since the end result was a positive outcome (in both economic and power terms) for men, but an excessive workload for women.
- This project was essentially aimed at women, but by supporting activities that are controlled and managed by men (cereal production and cattle rearing) it prevented women from having more control.
- Women still don't have access to other important resources, such as land ownership and information about climate change. They still don't have control over the different types of capital. And men continue to control their income.



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CONCLUSION

The mini-farm project in Gnagna shows that although women were the primary beneficiaries of the project, without a gender-based analysis the overall impact of the project was negative for women. It not only failed to improve women's livelihoods but, in certain aspects, contributed to accentuate gender inequalities and increased women's workloads.

SOURCE

Climate Change and Women Farmers in Burkina Faso – impact and adaptation policies and practices. Ana M^a Romero González, Adama Belemvire, Saya Saulière. Intermón Oxfam, July 2011

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