

Gender and Climate change: Regional Report

Executive Summary
by Belynda Petrie



1. Introduction

“The trade-offs forced upon people by climate shocks reinforce and perpetuate wider inequalities based on income, gender and other disparities.” UNDP, 2007

Climate change and climate variability are no longer simply a future possibility in the domain of scientists. Global warming has become a reality for many people around the world, with clearly observable effects such as the melting of ice-caps, glaciers and polar ice, amongst many others. The IPCC’s 2007 climate change report gives the following climate related impacts for Africa: By 2020, between 75 and 250 million of people are projected to be exposed to increased water stress due to climate change. By 2020, in some countries, yields from rain-fed agriculture could be reduced by up to 50%. Agricultural production including access to food, in many African countries is projected to be severely compromised. This would further adversely affect food security and exacerbate malnutrition. By 2080, an increase of 5-8% of arid and semi-arid land in Africa is projected under a range of climate scenarios (TS) (IPCC, 2007).

Sub-Saharan Africa is set to be one of the regions hardest hit by climate change, partly because 96% of its population is dependent on rainfed agriculture (World-Bank, 2008) and partly because of Africa’s poor adaptive capacity, relating to historical backlogs of under-development. Examples are poor access to health services, lack of availability of micro-finance, and under-developed infrastructure and transport systems.

The IPCC (2007) states that parts of southern Africa are highly vulnerable to climate variability and change, with the possibility of some river basins becoming more stressed. The report goes on to say: “Food security, already a humanitarian crisis in the region, is likely to be further aggravated by climate variability and change, aggravated by HIV/AIDs, poor governance and poor adaptation. Southward expansion of the transmission zone of malaria may likely occur.”

The climate change impacts on poor rural communities, whose incomes are mainly from subsistence agriculture, are not difficult to visualize. Successful adaptation actions are likely to be those that are finely tuned to the immediate needs of individual communities. Local realities and social structures need to be taken into

account. In many cases, women and men have separate roles and different knowledge and a range of different coping strategies.

Although various studies have focused on climate change impacts and adaptation opportunities in Africa, few have focused on the household level and in particular on gender differentiated impacts of climate change. This report, commissioned by Heinrich Böll Stiftung, provides an analysis and summary of the findings of eight case studies carried out in four southern African countries. Furthermore, the report aims to identify various policies, programmes and activities that could address these issues.

2. Methodology

Country studies were carried out in Botswana, Namibia, Mozambique and South Africa, with the investigation of two separate communities in each country. Methodologies used were focus group discussions, interviews and life histories with members of the community. The research questions for the country studies were firstly whether women and men in the region are differently impacted by climate change, and if so, in what ways. Other questions were: what are the physiological, political, economic and societal causes for the differences experienced, if any? What are the current coping and adaptation strategies and capacities? How can the capacity of women and men be strengthened to better **adapt to climate change and climate variability?**

The following is a summary of the case studies, carried out for this project. It also includes conclusions and recommendations from the case studies conducted in Botswana, Namibia and Mozambique and South Africa.



3. Key Findings

The sites were selected according to their levels of poverty and their vulnerability to climate change. A further criterion was that the impacts of climate change and variability should already be visible. The selection was based on the assumption that affluent societies and communities are less vulnerable to climate change than poorer communities and have the means to adapt to climate change without external assistance.

Although all the communities in the study had experienced somewhat different existing conditions and impacts, several common factors emerged. Climate impacts were already being observed in these communities. Most participants reported low and erratic rainfall and unpredictability and/or changes (shifting and shortening) in growing seasons, for example a later onset summer. Most communities reported existing soil erosion and forest or land degradation. Most had experienced an increase in floods, droughts and strong winds. Most of the participants reported having lost livestock due to drought (with an impact on men who in most cases control livestock). Most people reported low or non-existent crop yields, or that crops had been destroyed by drought or floods. All the above factors are consistent with scientific assessments, and are likely to increase under climate change.

Many households in the study were female-headed, often as a result of men having migrated in search of work (although the reason was not always stipulated and the studies did not investigate this aspect in depth). Most communities reported the negative impacts of HIV/Aids within their communities.

With the exception of South Africa, all communities reported that men were generally responsible for overall financial security and the safety of the family, while women were responsible for food security, health,

and all tasks related to running the household, including fetching water and fuel (usually firewood). In the case of the South African communities, these gender differentiated responsibilities seem to be in the process of breaking down.

Climate change has many different impacts on poor rural communities. It impacts livelihoods, social structures, agricultural practices and gender relations, amongst others. For example, the studies found that women in some communities have turned to alternative sources of income such as beer-brewing. The resultant increased levels of alcoholism and related violence and abuse might be an example of maladaptation to climate change impacts.

When trying to understand how climate changes can impact on a particular sector, system or group it is useful to start with the basic climate parameters, and gradually scale up to organism and system levels. We define the levels as follows: 1st order impacts are changes in atmospheric CO² concentration, temperature, rainfall parameters, humidity, wind and sunshine hours (basic meteorological conditions), as well as extreme climatic events. 2nd order impacts are consequences of 1st order changes for agro-climatic and other environmental conditions and agricultural resources (water/soil). 3rd order impacts are the natural resource, crop and livestock responses and the effects on production.

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4th order the impacts are impacts on rural economies and livelihoods – interaction with other stressors and drivers of change.

The changes noted by members of rural communities are mostly 3rd and 4th order impacts. Whilst it is clear that climate change is impacting both men and women in this region, the impact and degree of vulnerability is sometimes different for men and women, as is clear from the various country studies.

The women in this study seemed to cope better with the impacts of changing circumstances than the men, by exploring opportunities that enable them to cope better. Women are also repositories of knowledge about crops and climate, the environment, natural resources, food preservation techniques, etc. (rather than men) and are seen to be such by men (see for example pp. 98; 100, South Africa study, and literature cited in that study: WEDO, 2003, etc.).

This knowledge does not however make women less vulnerable. For instance they are not typically empowered in policy making processes that in turn impact their operational capacity and ability. It does suggest that there may be ways in which adaptation activities could target and build on women's ability to adapt, and at the same time strengthen their resilience to climate change.

4. Conclusion & Recommendations

Some recommendations based on the four country case studies and integrated analysis are:

- The creation of “*national toolkits on Gender Indicators*” as suggested by Women's Environment and Development Organization (WEDO, 2003): i.e. a list of national indicators related to gender equality and women's empowerment, as well as specific indicators to measure women's access to and control of natural resources.” (WEDO, 2003)

- Government officials and decision-makers need to

interact with rural communities *including participation by and consultation with women* and involve them in decision making.

- Develop sensitization programmes to eliminate gender stereotypes where they create barriers for opportunities for women, men and children.

- Farmers (both men and women) need to be restored to a position of respect as the food providers in the region. Needs include training, technology, improved climate resistant seeds, and financial capital. Supportive trade and tax structures are also important. Trade barriers and crippling tax regimes frequently destroy incentive for cash crop agriculture in the region. Related policy reforms should include clear gender-based representation. Trade policies often have a strong redistributive effect, both across economic sectors and among individuals. They can create opportunities for women's empowerment and can also create burdens as they disrupt markets in which women operate. This is why the gender perspective should be included in the design and implementation of trade policies.

- Develop and roll out early warning systems to both men and women, and information on timing, length and adequacy of rainfall.

- Means must be sought to ensure the transition from coping with climate variability towards more adaptive resilient systems that can confront climate change.

- Develop and extend microfinance programmes aimed at alleviating poverty while empowering men and women. Clear evidence points to the fact that microcredit finance has more robust results when extended to women than to men.

- Access to safe water within the community would lessen the load that women bear, whilst at the same time improving health, sanitation and quality of life.

- Access to markets by farmers must be improved.

“*In Sub-Saharan Africa it has been calculated that agricultural productivity could increase by up to 20% if women's access to such resources as land, seed and fertilizer were equal to men's.*” (DFID, <http://www.dfid.gov.uk/Documents/publications/gender-equality.pdf>)

5. Further Recommendation

Some initiatives, such as extending microcredit facilities to improve farming in Africa, have noted success with women rather than with men. It has been found that women are generally more reliable payers of debt as they are more consistent, stay in the same place and focus on providing stability to their children and wider groups of dependents. Having access to finance has also improved women's decision making powers as they are enabled to take more control of their own lives and related decisions such as having children. Also, women that have access to their own income are able to implement decisions about improved land management practices, which they are often better equipped to make, as indicated.

“The most dramatic thing that has happened in Bangladesh in the last 25 years is the total change in the status of women. Microcredit has played a very dramatic role in that, particularly with poor women... They become aware of their ability to handle their lives and make decisions (for example) about how many children they will have. Microcredit is not a population programme, but it has helped women to see how they can live their own lives. We have a (micro-credit) programme in Zambia and we have absolutely no problem. If somebody says that micro-credit doesn't work in Africa, I will not agree because I see it working.” Muhammad Yunus, Nobel Economics Laureate, Time, 28 September 2009

Women are playing an increasingly important role in agriculture in southern Africa, and this needs to be recognized at all levels of decision making in the region, and not just at community levels or by microfinance enterprises. Policy making and reform processes at a sectoral, national and regional level should be clearly cognisant of women's role in agriculture and improved land use management, such as reforestation for example. One example of policy reform needed, which is critical to improved agricultural production in the region, is the removal of trade barriers and improved tax regimes. Another is land reform and support to its beneficiaries. If women are to be valued as integral to farming in their role as custodians of important land management information, recipients of microcredit, producers and care givers, then this must be evidenced in land and agriculture reform policy. Agricultural output could benefit for example from women having equal access to land tenure and ownership **and decision-making power regarding the use of land and produce**, also without needing the express approval of their spouses, who are often absent. It is important to also think about how these reform processes take place. Whilst the voice of women needs to be heard in relation to policy reform, working with men in parallel is equally, if not more important, in order to facilitate transformation in their approach to hearing the voice of women.

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