# Gender, culture and climate change in rural Namibia

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**Abstract**

*Gender-based vulnerabilities have taken dominance in climate change adaptation and disasters risk management studies. Climate change impacts affect women's and men's livelihoods and cultures, thereby intensifying already existing gender inequalities. This paper examines gender differentiated impacts and vulnerability to climate change in Namibia. The paper further highlights how culture influences gender inequalities and associated implications for climate change vulnerability among different ethnic communities of Namibia. The data synthesis for this paper applied the Gender Analysis Framework (GAF) and the Climate Vulnerability and Capacity Analysis Framework (CVCA) to map out issues that cause or intensify social vulnerability to climate change in Namibia. Opportunities exist for Namibian women to participate in decision-making, leadership and community-based adaptation programmes. However, there are still feelings of hopelessness among Namibian women in rural areas. This could be caused by cultural attitudes among Namibian societies stemming from long held beliefs that women are weak and should be looked after. Access to information and ownership of technical skills increase the capacity of men and women to balance the vulnerability to impacts of climate variability and change. This paper concludes that climate change impacts are not gender neutral, men and women vulnerability to climate change is not the same and their adaptive capacities are differentiated.*

## Introduction

Gender-based vulnerabilities have taken dominance in climate change adaptation and disasters risk management studies. Several authors (Gilau, Dayo , Abraham and Mundia, 2011; Angula, 2010 & UNDP, 2012) have established that socio-political and cultural factors cause gender differentiated vulnerabilities to climate change. Furthermore, climate change impacts affect women's and men's livelihoods and cultures (Sakurai et al., 2011), thereby intensifying already existing gender inequalities. Subsistence agricultural production is central to Namibian communities' livelihoods. Subsistence agricultural practices have also shaped different cultures that exist in contemporary Namibia. However, agriculture is one of the sectors most vulnerable to impacts of climate change in Namibia. Therefore, the Namibian government exerts more efforts on developing adaptation strategies in the agricultural sector in order to enhance the resilience of local communities. This reflects the importance of examining causes of vulnera-

bility as well as differentiated impacts on women and men in Namibia. This is imperative for understanding and formulation of adaptation strategies in order to respond effectively to impacts of climate change and related risks. This paper examines gender differentiated impacts and vulnerability to climate change in Namibia. The paper further highlights how culture influences gender inequalities and the associated implications for climate change vulnerability among different ethnic communities of Namibia[1].

The data synthesis for this paper applied the Gender Analysis Framework (GAF) and the Climate Vulnerability and Capacity Analysis Framework (CVCA) to identify issues that cause or intensify social vulnerability to climate change in Namibia.

**Gender, culture and climate change: understanding the linkages**

Gender is generally described as socially constructed, culturally variable roles that women and men play in their daily lives (Meena, 1992); this refers to expectations which society has on men and women based on their sexes (Iipinge & Williams, 2000). The concept of gender also refers to opportunities associated with being a man or a woman and the interactions and social relations between men and women (UNDP, 2009). Gender relations are socially constructed power relations between men and women in a given society (Watson, 2006; Iipinge, Phiri & Njabili, 2000) and they determine the different benefits that men and women can derive from natural resources (Watson, 2006).

Van den Pol (2010) defined culture as "meaning or knowledge that human beings need to function in a certain situation: such as knowledge of language, habits, rituals, opinions, values and norms". Keesing (1974) distinguishes between "culture as an ideational system and culture as an integrated adaptive sociocultural system". Keesing further argued that as an ideational system, culture is ultimately in the head of a collective mind and it only refers to perceptions, beliefs, norms and values. Culture in this context can be can be used to explain social practices and the interrelation between ideas and practices (Pahl-Wostl et al., 2008) in rural Namibia.
The recognition that vulnerability and response to climate change impacts between men and women is not the same has led to the conceptualisation of gender dimensions in climate change discourse and research. Impacts of climate

[1] This paper is based on the findings of a 2008/9 study: Gender and Climate Change, Namibian Case Study. The Heinrich Boell study was conducted in the rural areas of Epyeshona village (Oshana Region) and Daures Constituency (Erongo Region). The paper is also supplemented by similar studies commissioned by Ministry of Environment and Tourism [MET] and United Nations Development Programme [UNDP].

change are not gender neutral (Angula, 2010). Gender roles are socially constructed and have created inequality between men and women. The different roles that women and men play in societies and households are exposed to climate risks in different ways (Speranza, 2011). This differentiates vulnerability of women and men to impacts of climate change. Men and women are also vulnerable to climate change because of their dependency on natural resources. Women's and men's differential access to social and economic resources is one of the key aspects of gender inequality. Gender inequality is manifested in the roles and resources that are determined by legal setup, cultural norms, societal practices, societal beliefs and opinions as well as power and decision-making in households and communities. Women and men have differentiated social roles and responsibilities, as well as differentiated relationships with environmental resources and ecosystem services. This explains why concepts of gender differentiated impacts and gender differentiated vulnerabilities and adaptation strategies are linked to gender, culture and climate change (Babugura, 2010; Angula, 2010; WEDO, 2011 & UNDP, 2012).

## Literature review: gender and climate change in Namibia

### *Gender*

Namibia, being a multicultural nation, has diverse ethnic groups with different cultures determining their gender roles. The different roles between men and women are based on whether the ethnic group or tribe is of matrilineal descent, bilateral descent or bifurcate descent (UNDP, 2012). It has been found that the descent patterns have an effect on how men and women behave, what social responsibilities they carry and how much power they have in decision making. Studies have shown that decision making powers in Namibia belong to men. Women are required to follow whatever decisions and directions have been taken by the men. This is a result of the patriarchal system that all ethnic groups in the country follow (UNDP, 2012; Iipinge & LeBeau, 2005). Although gender studies have concluded that there are inequalities in power, relations and gender roles between men and women, women are not homogeneous in Namibia. Educated and urban women are more empowered than their rural counterparts. Nevertheless, gender differences still persist due to perceptions, attitudes and views of society, lack of support and encouragement at home, as well as lack of individual motivation (UNDP, 2012).

### *Climate Change in Namibia*

The Second National Communication to the United Nations Framework Convention on Climate Change (UNFCCC) predicted with a high degree of certainty that Namibia will become hotter throughout the year, with a predicted increase in

temperatures of between 1°C and 3.5°C in summer and 1°C to 4°C in winter in the period 2046–2065 (Republic of Namibia, 2011). According to the Republic of Namibia (2011), maximum temperatures have been increasing over the past 40 years, as observed in the frequency of days exceeding 35°C. Equally, the frequencies of days with temperatures below 5°C have been decreasing, suggesting an overall warming. Furthermore, Namibia has been experiencing later onset and earlier cessation of rains in the northern and central regions, resulting in shorter seasons in most areas. There has also been a decrease in the number of consecutive wet days in various locations, and increases in measures of rainfall intensity could be observed. As far as the future is concerned, a decrease in Namibia's rainfall is not predictable, although its intensity is likely to increase. The most consistent changes involve an increase in late summer rainfall over major parts of the country, and a decrease in winter rainfall in the southern and western parts of the country. Increases in rainfall are mostly expected during the January to April period, especially in the central and north-eastern regions. It is important to underscore that stronger variability is likely to remain the key aspect of Namibia's climate in the future (Republic of Namibia, 2011).

## Gender and climate change in Namibia

Vulnerability studies from Namibia and Southern Africa (Angula, 2010; Babugura 2010; Khurtoum, 2010) suggest that the poor, women, the elderly and children are more vulnerable to impacts of climate change. Women and men in Namibia are affected differently by climate change. Their coping and adaptive capacities to respond to impacts of climate related risks are also different. The social vulnerability posed by climate change hinders progress in addressing gender inequalities and women empowerment in Namibia (Angula 2010; Gilau *et al*., 2011).

A review of literature revealed that the gender and climate change nexus is a crucial aspect requiring understanding at all levels. It has been proven that people generally experience climate change differently as "developing countries have economic constraints and cultural norms that restrict women's access to paid employment meaning that their livelihoods are particularly dependent on climate-sensitive sectors, such as subsistence agriculture or water collection" (Skinner, 2011, p. 2; Gilau *et al.*, 2011).

Brody, Demetriades, and Esplen (2008, p. 4) also found the discrepancy in gender and climate change as proven: "Men and women play complementary roles in guaranteeing food security", but, "statutory and customary laws often restrict women's property and land rights and make it difficult for them to access credit and agricultural extension services."

The changes in climate have different impacts on different regions and on different people (Djoudi & Brockhaus, 2011). Women in the south of the globe will be affected more negatively by climate change than men (Arora-Jonsson, 2011). This is because according to the UNDP human development report (1995) and UNDP (in Djoudi & Brockhaus, 2011), out of the 1.3 billion people living in poverty, 70% are women; and a gendered trend was projected in which women become much poorer than men as this is the case. Women are therefore much more vulnerable and will be much more negatively impacted. Women are greatly affected by water scarcity and flooding that is caused by climate change, because of their social roles and position worldwide (Figueiredo & Perkins, 2011). Furthermore, Figueiredo and Perkins argue that women have a significant contribution towards climate change adaptation because of gendered differences in positional knowledge of ecological and water-related conditions. Gilau *et al*. (2011) has also proven the difference in the impact of climate change to different people. They stated that people are affected by climate change differently depending on the geographical area they live and the kind of life they live. When one looks at climate change impacts such as drought and flooding, men and women are both affected; but differently. Hence, women as home builders in the different cultures, especially of Namibia, have the major responsibility of rebuilding homes destroyed by floods; they are the ones that stay at home looking after children and are less able to swim; and it has been proved that the percentage of households headed by women in flood prone areas in Namibia is very high (Gilau *et al*., 2011).

The Namibian literature on gender and climate change reported that the perception that women are weak and second-class citizens (UNDP, 2012; Angula, 2010; Gilau *et al*., 2011), is changing as recent literature has proven that women can no longer be ignored. They are now increasingly being regarded as *also* change agents and are able to make contributions towards initiatives. However, attitudinal change and change in society's stereotypes towards women are very slow. As such, the socialisation of women and girls with administration of the household and exclusion from decision making leads to development of inferiority complex. This creates a vicious cycle of inferiority complex throughout the life of a female Namibian (Ambunda & De Klerk, 2008). This could lead to hopelessness and apathy among Namibian women, particularly in communal areas.

Iipinge and LeBeau (2005, p. 36) stress that "All ethnic groups in the country exhibit gender inequality in the form of patriarchy and cultural attitudes vary from relative equality to rigid inequality". In addition, Ambunda and De Klerk (2008) and Angula (2010, p. 14), emphasise that "In most African cultural communities, duties and responsibilities are divided among husband, wife and sib-

lings based on stereotypes of what men and women should do and how women should behave and not necessarily on skills or ability."

According to Iipinge (as cited in Angula 2010, p. 11),

> Man in the Damara community is defined as the middle of the house, the central pole that holds the house together while the woman is the foundation and keeper of the house and as the right hand of the man. Whereas in the Herero community man is the protector of the family, collector of food and a fighter, while the woman is the mother of the nation and collector of wild food.

Nampinga (2008), Angula (2010), Djoudi and Brockhaus (2011) and Arora-Jonsson (2011) have highlighted the importance of understanding women's participation in climate change mitigation and adaptation strategies. Angula (2010) has shown that there is a change in gender relations, as post-independence traditions and cultures are being influenced by modern norms and values. The Namibian government has acknowledged that women have suffered enough discrimination (Constitution of the Republic of Namibia: Article 23:3) and they need to be brought forward in decision making and in climate change related issues (Gilau *et al*., 2011).

In summary, (i) women have different perspectives regarding climate change impacts, (ii) women and men are impacted by climate change differently, (iii) women have limited access to information, (iv) women are unequally represented in decision making and (v) women and men have different coping and adaptive capacities. These facts demonstrate that understanding men and women's views and gendering the planning and decision making process for climate change adaptation would ensure its success (UNDP, 2012). Climate adaptation policies too often treat women as vulnerable beneficiaries rather than as rights-holding citizens who need to be recognised for the participation, skills and experience they can contribute. In cases where women are already playing a crucial role in developing community based climate adaptation solutions as part of household and community initiatives, their contributions are often not being recognised (Skinner, 2011; UNDP, 2009).

**Gender and cultural factors enhancing vulnerability to climate change**

This section presents the socio-political and cultural factors that cause vulnerability to climate change. The synthesis applied the Gender Analysis Framework (GAF) and the Climate Vulnerability and Capacity Analysis Framework (CVCA) to

identify issues that cause or intensify social vulnerability to climate change in Namibia.

### *Decision-making*

Iipinge et al. (2000) used the "cultural symbolisms" in their analysis of understanding gender among different ethnic and cultural groups of Namibia. These cultural symbolisms are used by different ethnic groups to describe a woman or man as seen in society. These symbolisms reveal that men are seen as the stronger sex compared to women. A man is a strong person and is believed to be an indispensable tool and that where a man is there should be no hunger. A woman, however, is symbolised as a clay pot, a spoon or as a child. These similes imply that a woman is physically weak, she is an indispensable tool for the man and that she cannot lead an independent life without a man. The cultural symbolisms explained above, describe the cultural beliefs, perceptions and opinions that dominate the Namibian society. Such cultural beliefs inform social practices and values of all ethnic groups in Namibia. As such, climate change impacts superimposed on these cultural beliefs lead to gender differentiated vulnerabilities. Due to cultural influences, women in Namibia have limited decision-making power at all levels of governance. There are relatively fewer women in decision-making positions in the country both at national, regional and village levels. These inequalities limit the ability of women to adopt new strategies in order to respond and cope with impacts of climate change and variability.

Traditionally, the majority of men play leadership roles in societies and hold decision-making positions both at national and local levels. Women in Namibia are ascribed with lower positions in any given setting in Namibia. Women have equal opportunities to participate in all capacities regarding climate change decisions. Discussions held in communities targets heads of households, the majority of which are men. Women from Herero, Himba, Wambo, Kavango and Caprivi tribes are not encouraged to participate in discussions at community level. Some climate change related projects were not deliberate in mainstreaming gender in programme formulation, implementation and monitoring, e.g. the CPP/CCA pilot programme in the Omusati region, northern Namibia.

At local and household level, the table below summarises climate change related decisions that men and women make. Table 1 shows a lack of women's voice in decision-making and climate change discussions at local level (Angula, 2010; UNDP, 2012).

**Table 3**: Gender differentiated decision-making in climate change at local and household level

| Men | Women | Causes of vulnerability |
|---|---|---|
| - Decisions and interests regarding allocation of resources required for responding to climate change risks.<br>- Decisions regarding severe risks posed by drought, floods, pest outbreaks and other related climate change disasters.<br>- Men are making overall decisions at household level. | - Immediate decisions and interests regarding coping that would ensure food security.<br>- Women are making decisions on a daily basis regarding household maintenance, food security and parenting. | - A lack of women's voice reduces a gender balanced decision-making process in community-based climate change adaptation programmes.<br>- Unequal access to information and knowledge limit the potential of majority of women and marginalised men in the Namibian society to participate in local level decision making.<br>- The majority of women are affected by social exclusion in Namibia. This has contributed significantly to inferiority complex and lack of motivation among Namibian women to take up leadership roles in their communities or households. |

Although women are more vulnerable to impacts of climate change, they have the capacity to participate and improve their adaptive capacity. Opportunities exist, as this assessment revealed that women are increasingly serving in community-based natural resources management committees. Comparatively, the Damara and Nama ethnic groups and communities exercise more gender balanced decision-making in communities. There are also a significant number of women in urban areas that are empowered due to their educational and employment status. This allows them to express their interests and contribute their valuable knowledge to climate change interventions and policy discussions. Among Owambo, Kavango and Caprivi communities, women are consulted by their spouses when major decisions are made.

### *Access to information, assets, financial resources and technical skills*

Lack of income and employment opportunities increases the vulnerability of households and limits the opportunities to explore off-farming livelihood strategies. Women in Epyeshona and Daures constituencies are reported to have limited technical skills required to acquire employment or generate income (Angula, 2010). Additionally, they have limited access to capital, productive land,

knowledge and services. These factors decrease resilience and adaptive capacities of men and women differently.

Table 2 below illustrates that differentiated access to assets, information and financial resources causes differences in the capacities required to deal with climate change (Angula, 2010; UNDP, 2012).

**Table 4:** Gender differentiated access to information, financial resources and assets

| Men | Women | Causes of vulnerability |
|---|---|---|
| - Men are more interested in world events and news, thereby enhancing their access to information.<br>- Men in Namibia possess more technical skills that are required to acquire employment in the formal market.<br>- In general, more men have access to credits and markets.<br>- Men in Namibia, compared to women, have access to productive land and rangelands.<br>- More men than women own commercial farms in Namibia. | - Women lack skills, information and access to resources required to diversify livelihood strategies.<br>- Men and women have unequal access to credits and markets that would enhance their capacities. Nevertheless, due to cultural-political factors, women in communal areas are not empowered to access the credits and markets available.<br>- Women have limited control over assets and resources that may build their resilience. | - Due to the fact that men have more access to information, the majority of communal women receive delayed "early warning information" regarding rainfall forecast - a key aspect to subsistence farming in Namibia.<br>- Women from Daures and Epyeshona reported that lack of access to markets and credits reduces their adaptive capacity. This is crucial because they also reported that women are first to adapt.<br>- Although, the Namibian government has eradicated the practice of land grabbing in Namibia, women tend to settle on less productive and low-lying lands that are prone to drought and flooding. |

Cultural norms and values in Namibia are influenced by modern multi-cultural independent Namibia's lifestyle. Consequently, Namibia is progressing well with regards to gender equality and women empowerment. Opportunities exist for women to take ownership of their own development, thereby reducing gender inequalities in Namibia. Access to information and acquisition of technical skills increases the capacity of men and women to diversify their livelihoods, to mi-

grate in search of employment, and enhances their ability to balance the vulnerability to impacts of climate variability and change. However, this paper concludes that climate change impacts are not gender neutral; men and women vulnerability to climate change is not the same; and their adaptive capacity are differentiated.

## Gender differentiated impacts in the climate dependent sectors of Namibia

The differentiated relationship of women and men to the environment indicate that women are impacted differently and their perceptions of the impacts are different. Climate risks impacts on livelihood, health and other social aspects mainly affect rural communal areas in Namibia. The majority of women in Namibia (75%) constitute the workforce responsible for fetching water, collecting wood and crop cultivation (Republic of Namibia, 2010). Table 3 below introduces a summary of the impacts of climate change and gender dimension in Namibia.

**Table 5:** Climate change impacts and gender dimension profile for Namibia

| Climate change impacts | Gender differentiated impacts and vulnerability to climate change |
|---|---|
| **Water** -Increased water shortages associated with low rainfall events or flooding associated with above normal rainfall. | - Women and girls travel long distances to fetch water.<br>- Water scarcity limits development of small-scale projects. Majority of women and youth participate in local developmental projects.<br>- Men migrate with livestock to areas less affected by climate change. |
| **Agriculture** - Agricultural productivity decline (crop and livestock); pests outbreak destroying crops; disease and parasites affecting livestock. | - Women are the main subsistence producers of maize and wheat in Namibia. Productivity of maize and wheat production drops significantly during drought or flooding years in Namibia.<br>- Crop and livestock production changes could affect the gendered division of labour. The changes also affect men and women's income from crop and livestock production.<br>- Men migrate in search for better grazing opportunities or employment opportunities. |
| **Environment and Forestry** - Loss | - Shortage of fuel wood during floods af- |

| | |
|---|---|
| of biodiversity, shift in dominant vegetation types from grassy to arid and semi-arid shrubland, changes in forest cover (coupled with deforestation) | fects cooking and heating in households - traditionally a woman's responsibility.<br>- Women are expected to contribute unpaid labour to soil conservation and reforestation efforts. |
| **Fisheries -** Access to inland fisheries resources compromised during floods in north-east Namibia; more fish resources in the cuvelai system during floods; closure of fishing industries due to environmental variability in the Benguela Current Large Marine Ecosystem; increased fish prices due to declining fish stocks. | - Opportunities for women to engage in subsistence fishing during floods.<br>- Reduced fish species used by women for domestic consumption.<br>- Majority of women losing jobs in fishing processing industry. |
| **Health** - Increased water-borne diseases during floods; poor sanitation during floods; increased malaria cases due to increased temperatures; heat stress causing meningitis and other high temperature related illnesses. | - Increase in women's workload due to their role as primal care givers.<br>- Increased vulnerability of maternal and infant deaths due to malaria and other water-borne diseases.<br>- Stress levels and related diseases may increase for both women and men. Men in particular experience and express stress in different, more devastating ways than women due to expectations around providing for the family. |

**Conclusion**

Rural communities are subsistence farmers, therefore rainfall is the most important climatic variable determining crop yield and maintaining healthy livestock. Women and men in Epyeshona and Daures have experienced changes in local climate over the past two decades. The degree of climate change impacts and the exposure of women to climatic risks are high. Similarly, the emotional burden and extra effort is felt more by women than men. Because, "traditionally women are submissive to their husbands and they would explore first other means of ensuring food security before they discuss the matters of food shortage in the household with their husbands, the 'heads of households' (Angula, 2010, p. 3). Men are not concerned with the worries and anxieties of where the next meal might come from; therefore the psychological effects and efforts are much less on men compared to women. On the contrary, men are impacted

more in events of climatic variability that severely affect the livelihood and minimise the food security of the household.

The cultural beliefs, perceptions and opinions that perceive a woman as weak and as subordinate to a man still dominate the Namibian society. Such cultural beliefs inform social practices and values of all ethnic groups in Namibia. As such, climate change impacts superimposed on these cultural beliefs lead to gender differentiated vulnerabilities. Due to cultural influences, women in Namibia have limited decision-making power at all levels of governance. Opportunities exist for Namibian women to participate in decision-making, leadership and community-based adaptation programmes. However, there are still feelings of hopelessness among Namibian women in rural areas. This could be a result of cultural attitudes among Namibian societies stemming from long held beliefs that women are weak and should be looked after.

To sum up, women generally lack the technical skills to participate in formal employment and are therefore engaging in informal economic activities. Income generating capacities between men and women also differ. In general men are better prepared for climatic events than women due to their improved socio-economic situations. Access to information and ownership of technical skills increase the capacity of men and women to diversify their livelihood and to migrate in search of employment. It also enhances their ability to balance the vulnerability to impacts of climate variability and change. However, this paper concludes that climate change impacts are not gender neutral. Men's and women's vulnerability to climate change is not the same, and their adaptive capacities are differentiated.

**Gaps for further research**

This paper has demonstrated that there are gender differentiated impacts of climate change. The paper recommends further studies on gender, culture and climate change presenting evidence-based reasons for differences in vulnerabilities to climate risks and capacities to respond to climate change impacts. The paper further recommends research on the commercial and urban areas of Namibia to assess gender and climate change vulnerabilities in these settings. There is also a need for a study examining gender relations in contemporary Namibia, as well as among the Namibian youth. Such studies need to show what is happening to the relationship between men and women given the challenges of climate change affecting food security.

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