Gender Assessment

FP023: Climate Resilient Agriculture in three of the Vulnerable Extreme northern crop growing regions (CRAVE)

Namibia | EIF | B.14/07

GENDER ASSESSMENT REPORT

Climate Resilient Agriculture in three of the Vulnerable Extreme northern crop growing regions (CRAVE)

Environmental Investment Fund of Namibia, March 2016

Acronyms Used

ADCs	**Agriculture Development Center**
CA	**Conservation Agriculture**
CRAVE	**Climate Resilient Agriculture in three of the Vulnerable Extreme northern crop growing regions**
CVCA	**Climate Vulnerability and Capacity Analysis Framework**
GAF	**Gender Analysis Framework**
GCF	**Green Climate Fund**
GDP	**Gross Domestic Product**
GSCs	**Gender Sectoral Committees**
IPCC	**Inter-governmental Panel on Climate Change**
LAC	**Legal Assistance Centre**
MAWF	**Ministry of Agriculture, Water and Forestry**
MGECW	**Ministry of Gender Equality and Child Welfare**
NCCA	**Namibia Comprehensive Conservation Agriculture**
NGO	**Non-Governmental Organisation**

1 INTRODUCTION

1.1 Gender Policy of the Environmental Investment Fund of Namibia

Although many gender gaps have narrowed over the past two decades in Namibia, substantial inequalities remain across all sectors, particularly in low-income families and among disadvantaged groups. Under the gender policy, the Environmental Investment Fund of Namibia investments are aimed at three overarching outcomes. These outcomes, which are especially important for people who are marginalized or excluded due to ethnicity, gender identity, sexual orientation, lack of income, disability or other factors, reflect the gamut of activities that the Fund undertakes across multiple sectors and fields:

- Reduce gender disparities in access to, control over and benefit from natural resources, wealth, opportunities and services economic, social, political, and cultural;
- Reduce gender based discrimination and improve participation of women in sustainable development processes;
- Promote financing for gender results, and
- Increase capability of women to realize their rights, determine their life outcomes, and influence decision-making process.

The goal of the Fund's gender policy is to contribute to better health for both women and men, through health research, policies and programmes which give due attention to gender considerations and promote equity and equality between women and men. The Fund will analyze and address gender issues in planning, implementation, monitoring and evaluation of policies, programmes, projects and research in order to achieve the following objectives:

- Increase coverage, effectiveness and efficiency of interventions;
- Promote equity and equality between women and men, throughout the life course, and ensure that interventions do not promote inequitable gender roles relations;
- Provide qualitative and quantitative information on the influence of gender on sustainable development; and
- Support projects on how to undertake gender-responsive planning and implementation

1.2 Objectives of the Assessment

The overall objective of gender assessment is to mainstream gender into the project, which will be achieved through several activities. Understanding of the practices in the project area is the basis for gender mainstreaming, which was obtained from the field visit in the three regions of Zambezi, Kavango West and East. The specific objectives of field survey mission are:

- To collect basic information on labor division by gender, assess gender impacts of climate change, and identify gender roles in climate change adaptation;
- To identify the gender training needs for climate change adaptation with specific focus on crop farming.

1.3 Project Overview

The Climate Resilient Agriculture in three of the Vulnerable Extreme northern crop growing regions (CRAVE) project objective is ***to reduce rural human population's vulnerability and food insecurity to climate risks and threats while increasing the adaptive capacity, well-being and resilience of the vulnerable small-scale farming communities in crop production landscapes that are threatened by climate variability and change*** **(EIF, 2016*)***. CRAVE distinctively focuses:

a) On the most vulnerable subsistence farming communities and groups in three of the poorest regions (i.e. Kavango West, Kavango East and Zambezi) in Namibia;

b) It will ensure that beneficiaries (i.e. small scale growers and producers) do not only acquire abilities to adopt comprehensively conservation agriculture (CA) and apply climate resilient agricultural practices that are smart to produce food; and

c) But those severely poor and vulnerable households have access to and are utilizing productive resources and services for food and nutrition security- and sustainable livelihood improvements.

The project has two sub-objectives.

1. Sub-objective 1: To strengthen the adaptive capacity, scale up adoption of effective coping mechanisms and measures (e.g. comprehensive conservation agriculture and micro drip irrigation), and implement on the ground adaptation actions and practices that assist vulnerable subsistence farmers to reduce vulnerabilities to climate change, erratic weather patterns, seasonal rainfall shifts, including variability such as heats and drought.

2. Sub-objective 2: To provide rural crop farmer with alternative sustainable access to off-grid solar energy technologies (water pumping for small scale micro irrigation systems, and refrigeration for harvested food) and reduce the dependency of increasingly expensive imported fuels by promoting solar water pumping in the agricultural sector.

1.4 Agricultural Challenges

Namibia's soils are generally poor, contain low levels of moisture, are easily degraded, and most of the land has low capability for conventional agricultural activities. About 2% of land is arable, 9% is forested land and a further 10% is woodlands. Even where irrigation is possible close to the rivers of the north towards north-east, away from the river floodplains the soils are usually medium to poor quality Kalahari sands (Mendelsohn, 2002). The low rainfall and lack of water, combined with mostly poor soils, mean that the opportunities for improving agricultural production in Namibia are severely limited and need innovative approaches. This is also the case in areas that are considered most suitable for crop production, such as the Zambezi, Kavango East and Kavango West. The three regions are however part of the merely 8% of the country that receives sufficient rainfall for rain-fed agriculture (or dry land crop production). Hence with the right mix of adaptation measures, including resilient building they could potentially be improved and transformed. Once enhanced through for e.g. the implementation of the Namibia Comprehensive Conservation Agriculture (NCCA) Programme and supplemented with the implementation of the GCF CRAVE (that aims to reduce climate vulnerability, increase the adaptive capacity and resilience of vulnerable small-scale farming communities in crop production landscapes that are threatened by climate variability and change) their contribution to the overall national output can transform production towards CRAVE.

In addition to climate-related challenges, drought and higher temperatures are usually considered normal in highly variable drylands like Namibia- there are various economic, social and environmental factors and barriers contributing to these regional vulnerabilities, of which food insecurity, as a direct consequence of both natural and human based failures interacting with climate stressors is key. Namibia is divided into 14 regional administrative zones. Of the 14, the Zambezi (90, 596), Kavango East and West (223 352) are amongst the poorest regions in Namibia. They are also the regions with Constituencies that registered the greatest increases in the incidences of severe poverty –i.e. Sibinda, Linyati, Kongola and Kapako. The targeted regions and areas fall within the Lowland Maize and Livestock area.

Figure 1: Left: Location of Namibia in Africa. Right: Average Annual Rainfall in Namibia.

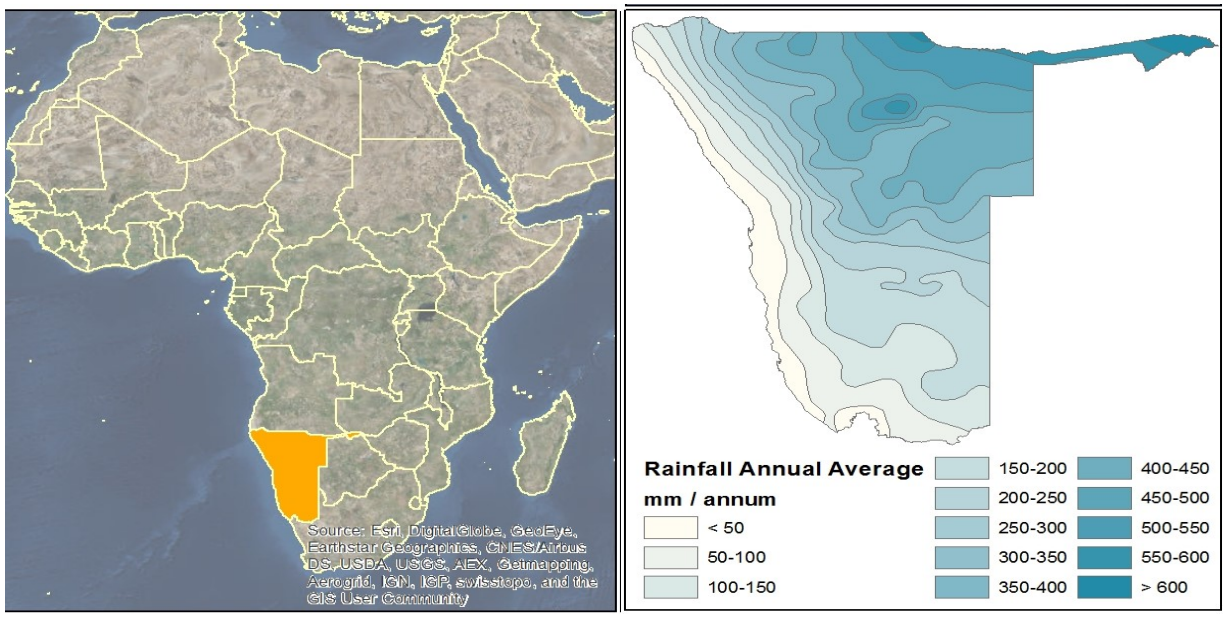
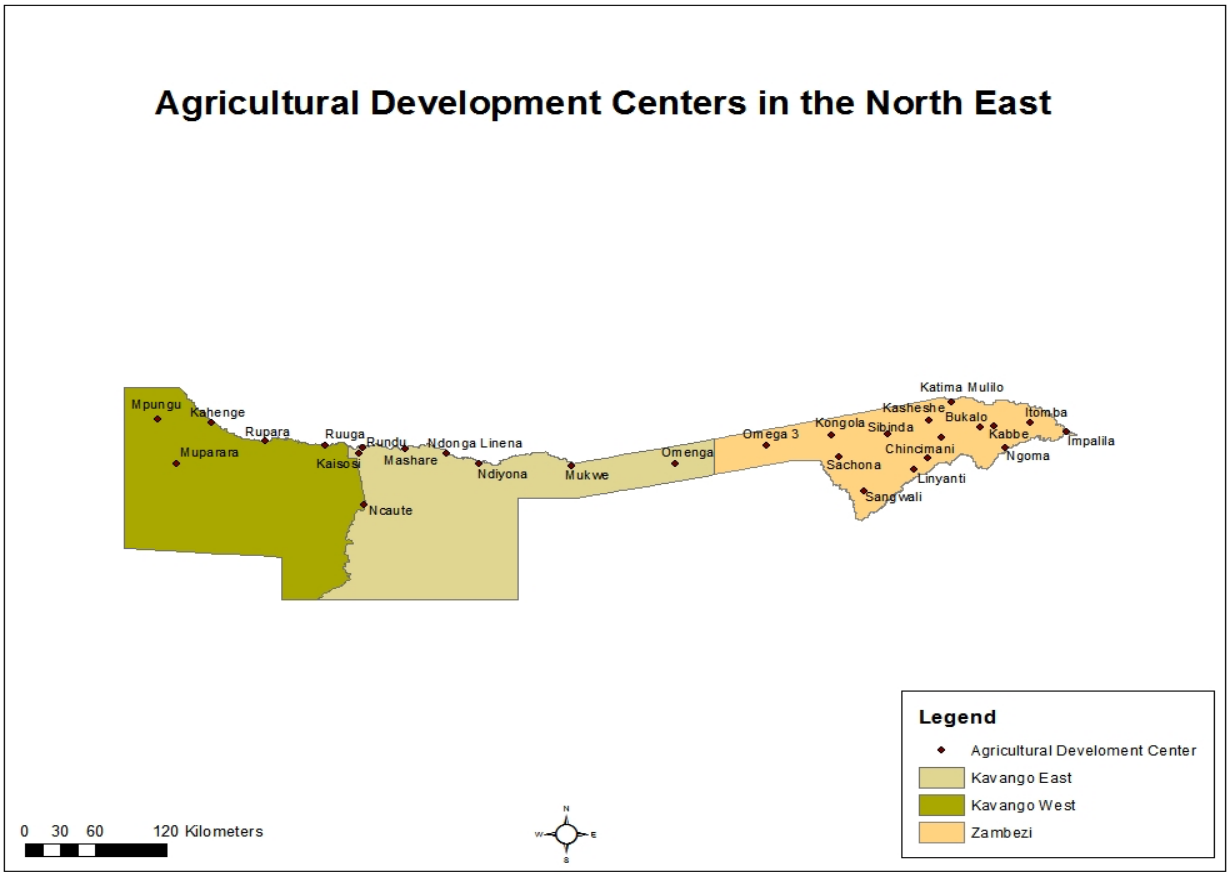


Figure 2: Agricultural Development Centres



Map of representing the three regions where CRAVE will be implemented with 28 existing Agricultural Development Centres (ADCs) that will provide support and guidance on the implementation of the project (EIF, 2016). The ADCs are operated under the Ministry of Agriculture, Water and Forestry, and support the non-formal training of farmers and farm labourers. **Project Areas and Target Groups:** Namibia's three northern regions – where the proposed project will take place – are home to the majority of rurally-based Namibians who practice rain- fed subsistence agriculture on communal land for the purposes of sustaining household food security and small income generation. As shown in Figure 2 below, the north-eastern regions where the proposed project will take place include: Kavango West and Kavango East (both formerly Kavango), and Zambezi (formerly Caprivi) regions.

While each of the geographic areas where the proposed project will take place has much in common in terms of economic development and climate change threats and challenges, the demographic characteristics of each region are distinct.

Table 1: Some of these key differences.

	Kavango East and West	**Zambezi**	**Total**
Population	223,352	90,596	313,948
Households	36,741	21,283	58,024
Female headed	43%	44%	47%
Average household size	6	4.2	10.2
No. of smallholder farmers*	11,076	12,556	2,3632
No. of hectares under conventional cultivation*	17,257	22,606	39,863

- *Data derived from the Annual Agricultural Surveys, 1996-2003, undertaken by the Central Bureau of Statistics (the predecessor agency to the Namibia Statistics Agency). The NSA conducted an Agricultural Census in 2014 whose results will only be published later this year*

1.5 Methodology

Literature review - The literature review draws heavily upon several existing gender and youth reports that have been conducted recently of economic, education, and labor sectors in Namibia. The review is based on 1) publicly available document undertaken in the project area, 3) Information collected from the field, and 3) Information provided by the Ministry of Agriculture, Water and Forestry (MAWF), which is not available in the public domain. The main sources of information used to prepare this Report included, among others: project documents for CRAVE;

and ongoing project baseline and complementary activities associated with Conservation Agriculture (CA) in Namibia.

Stakeholder consultations - In addition to a literature review, consultations were conducted in country with public institutions, international and civil society organizations, and development partners. The data synthesis for this report 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.

1.6 Literature Review

1.6.1 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 vulnerability 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 implications1for climate change vulnerability among different ethnic communities of Namibia.

1.6.2 **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 socio- cultural 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 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 cli- mate 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).

1.6.3 **Gender and Climate Change**

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 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.

2 GENDER POLICIES AND INSTITUTIONAL FRAMEWORK

2.1 Gender Policies

Namibia has made progress on gender-related policies and programmes since independence through the ratification of international instruments, national policies and gender-related law reform. Namibia is a signatory to several international gender conventions, all of which uphold the principles of gender equality. The government is currently drafting a Succession Bill, which will harmonise methods of inheritance and property regimes for all Namibians. The GoN has two national documents aimed at guiding gender policy: the National Gender Policy (NGP), which sets out the government rationale for its gender policy, and the National Gender Plan of Action (NGPA), which identifies strategies for implementing gender equality. In addition, there are several national level documents that elaborate on the government's gender aims and objectives, including the Fourth National Development Plan (NDP4) and the Namibia Vision 2030 (2003), both of which identify gender as a cross-sectoral issue to be mainstreamed in development initiatives.

The Namibia Vision 2030 also identifies a policy framework for long-term national development, and includes in its objectives to mainstream gender in development, as well as to ensure that women and men are given equal opportunities to exercise their skills in all aspects of life. The Vision 2030 includes mechanisms for monitoring and evaluating progress with regard to gender issues and recommends involving traditional authorities in gender sensitive programmes; addressing misconceptions on gender and discourses that reflect gendered ideologies; implementing gender policies and programmes; undertaking gender analysis of data; and capacity building for gender research.

2.2 Institutional Framework

The government has established several institutions to address gender issues and developed a system within those institutions for addressing gender inequalities. Relevant government mechanisms include:

- Ministry of Gender Equality and Child Welfare (MGECW)
- Gender Sectoral Committees (GSCs)

- Gender Focal Points within all ministries
- National Gender Mainstreaming Task Force (a collaboration of stakeholders)
- Gender Management Team (high level management from ministries and parastatals as well as NGOs) – (suggested but not instituted)

Currently the MGECW is the lead organisation for coordinating national gender initiatives and the National Gender Machinery (NGM), although supported by other stakeholders. The structure of the MGECW is designed to develop and coordinate gender programmes; constitute Gender Sectoral Committees; coordinate international affairs and multi-bilateral relations; facilitate gender research; and contribute to gender sensitive and/or gender-related legislation. In addition, the National Coordination Division within the MGECW coordinates nationwide gender activities through regional offices and Gender Sectoral Committees. The MGECW has also appointed an overall Development Planner for all Gender Sectoral Committees to make them more efficient in coordination efforts. The main divisions of the MGECW address three issues: (i) gender issues; (ii) children's issues; and (iii) community development. Within the MGECW the sections dealing with women's issues are the National Coordination, GSCs, Training Programme Development, Ministerial, International Affairs, and Research and Legislation.

2.3 Legal Framework

At independence thirteen laws are said to have favoured men over women. Many of these laws have been changed, but not without resistance at all levels of society - from lawmakers to community members. The Married Person's Equality Act, which grants husbands and wives equal rights in civil marriages, caused heated debate also among parliamentarians, with many male members being opposed. Customary law even though it should be subordinated to constitutional provisions which outlaw gender discrimination, still cause gender-based discrimination because it is still used, particularly in the context of traditional courts in rural areas. There are several government initiatives such as the **Customary Law Bill,** which recognise customary marriages and harmonise civil and customary laws.

In line with the Constitution the Affirmative Action (Employment) Act (AAA) (1998) focuses on previously disadvantaged groups, including women. The Act identifies affirmative action as a set of measures to ensure that all Namibians have equal employment opportunities and are

equitably represented in the workforce. he Maintenance Act (2003) provides that both parents have a legal duty to maintain their children, regardless of whether the children were born inside or outside of a marriage and whether or not parents are subject to any other customary laws which may not recognise a parents' liability to the child.

2.4 Stakeholders for Policy, Institutional and Legal Frameworks

A range of NGOs in Namibia work on various aspects of gender equity. Many began gender-related activities after independence when NGOs generally became more established and proliferated. 50 NGOs, including women's NGOs formed in 1991 a national umbrella organisation, the Namibian Non-Governmental Organisations' Forum (NANGOF). Women's organisations themselves tried over the years to form a national umbrella but never succeeded to form one that included all organisations. This has remained a weakness of the women's movement and has constrained coordination also with the government. There are dozens of small NGOs, but the more important NGOs active in gender equity number perhaps 20.

The major NGO engaged in the legal reform process is the Legal Assistance Centre (LAC), which has drafted gender-related laws and participated in dialogue between stakeholders and communities on gender-related legal reform. LAC's stated objective is to protect the human rights of all Namibians through (i) litigation and advice; (ii) education and training; and (iii) research and advocacy. LAC conducts legal research and makes policy recommendations relating to human rights issues including women's and children's rights.

Various units at the University of Namibia have conducted research on gender-related topics such as gender-based violence and customary law upon which legal reforms have been based. In 1999/2000 the Gender Training and Research Programme conducted research on rights to property and inheritance, which has been used to inform policymakers working on reforming inheritance law.

3 ASSESSMENT OF GENDER BASED IMPACTS OF CLIMATE CHANGE

3.1 Potential Impacts of Climate Change on Women

While debate rages on regarding responsibility for past greenhouse gas emissions and how to reduce the man-made sources of those gases, the world is actually already committed to adapting to the climate changes that will continue to develop as a result of past emissions. The need to adapt is urgent. Although climate change is a global phenomenon, it manifests itself differently at the regional and local levels. The Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) states that climate change is already having discernable, and indeed worsening, effects on communities (IPCC, 2007).

The developing world will bear the heaviest burden of climate change, despite having contributed least to the greenhouse gas emissions responsible for climate change, and women are particularly affected. Consequently, adaptation measures are required to enable societies to mitigate the harm of now unavoidable climate change by reducing its human and social costs and supporting sustainable development and poverty alleviation.

Table 2: Potential climate changes and their effects on women (Vincent et al. 2010)

Climate Change Effects	Potential Risks	Examples	Potential Effect on Women
Direct	Increased drought and Water shortage	Loss of income from agricultural activities resulting in multiple vulnerabilities	Women and girls in developing countries are often the primary collectors, users and managers of water. Decreases in water availability will jeopardize their families' livelihoods, increase their workloads, and may have secondary effects such as lower school enrollment figures for girls or less opportunity for women to engage in income-generating activities.
	Increased extreme weather events	Greater intensity and quantity of hurricanes, floods and heat waves	It is proven in literature that natural disasters (and their subsequent impact) kill more women than men on average or kill women at an earlier age than men.
Indirect	Increased epidemics	Climate variability played a critical role in malaria epidemics in the East African highlands and accounted for an estimated 70% of variation in recent cholera series in Bangladesh.	Women have less access to medical services than men, and their workloads increase when they have to spend more time caring for the sick. Poorer households affected by HIV/AIDS have fewer resources to adapt to the effects of climate change. Adopting new strategies for crop production or mobilizing livestock is harder for female-headed and infected households.
	Loss of species	By 2050, climate change could result in a species extinction rate	Women may often rely on crop diversity to accommodate climatic variability, but permanent

		from 18-35%.	temperature change will reduce agro-biodiversity and traditional medicine options, potentially affecting food security and health.
	Decreased crop production	In Africa, crop production is expected to decline 20-50% in response to extreme El Niño-like conditions.	Rural women in particular are responsible for half of the world's food production and produce between 60-80% of the food in most developing countries. In Namibia, the share of women affected by climate-related crop changes could range is estimated at 56%.

3.2 Women Vulnerability to Climate Change

Climate change is not happening in isolation, but is coinciding with many other trends and stresses on livelihoods, including economic liberalization, globalization, population growth, geopolitical conflict, and unpredictable government policies. As stated above, women are vulnerable not because of natural weakness (i.e., because of their sex), but rather because of the socially and culturally constructed roles ascribed to them as women (i.e., because of their gender). Given the severity of gender inequality, particularly in the developing existing patterns of gender disadvantage (UNDP, 2007). Several factors will exacerbate this:

- **Limited access to resources**. In many poor communities, women have limited access to crucial resources such as land, livestock, tools, and credit. Access to land and security of tenure is often highlighted as an important cause of women's vulnerability (see, for example, Agarwal, 2003; Jacobs, 2002; and Davison, 1988). Women's access to land is gained either through the state, family (typically in Africa) or the market (typically in Asia). Often, women may have access to resources, such as land, but have limited control over it, as they do not own it and therefore cannot make decisions regarding its use. This is particularly ironic, given the central role of women in agriculture.
- **Dependence on natural resources and sexual division of labor.** As the primary users and managers of natural resources (being typically responsible for fetching water and wood and bringing it to the house, for example), women depend on the resources most at risk from climate change. Projected climate changes such as increases in temperature and reductions in precipitation will change the availability of natural resources such as forests and fisheries and potentially affect the growth of staple crops.
- **Lack of education and access to information.** In the developing world in

particular, priority is still placed on boys' education rather than girls', and girls are thus likely to be the first ones pulled out of school when resources are short. As a result, girls typically receive fewer years of education than boys. Without education, women are at a disadvantage, as they have less access to crucial information and fewer means to interpret that information. This can affect their ability to understand and to act on information concerning climate risks and adaptation measures. Limited educational opportunities also make it more difficult for women to gain formal, paid employment, further reinforcing their subordination relative to men (see, for example, Kevane, 2004; Appleton, 1996).

- **Limited mobility.** Women are often restricted from leaving their communities, even though migration is a coping mechanism often used by men. This is due to the fact that gender roles dictate that they remain at home and carry out reproductive tasks and to the fact that, having less education, they are less likely than men to find employment. Remaining at home can leave them vulnerable in two ways: first, they stay where climate change has hit hard, and second, they miss out on the economic opportunities and enrichment of personal experience that migration affords.
- **Limited roles in decision-making.** Women's voices are often muted in family and community decision-making (see, for example, Quisumbing, 2003). This is particularly unfortunate, given women's close relationship with natural resources and awareness of conservation and potential adaptation measures.
- **Lack of (or limited) economic empowerment opportunities:** Economic empowerment for women is one of the largest contributing factors that can exacerbate women's vulnerabilities.

3.3 Gender Vulnerability to Disasters

As well as bringing about incremental change in temperature and precipitation, climate change is projected to change the frequency and magnitude of hazardous weather events, such as tropical cyclones and hurricanes. A substantial body of literature on the gendered nature of vulnerability to past hazards and disasters illuminates how women and men are differently affected. When disasters occur, more women die than men, which reflects women's social exclusion: they are less able than men to run, often have not learned to swim, and have behavioral restrictions that limit their mobility in the face of risk (not least of which is the fact that their voices often do not carry as much weight as men's in their households). On the other

hand, some post-disaster analysis has shown that men suffer higher mortality rates because they take more risks trying to save themselves and their families.

Table 3: Summary of gender differences in vulnerability and adapting to disasters (Vincent et al. 2010)

Disparities that increase risks for women in disasters	**Disparities that increase risks for men in disasters**
- Higher levels of poverty - Extensive responsibilities of caring for others - Domestic violence - Traditional women's occupations	- Occupational segregation - Internalized norms of masculinity - Roles in the family and in the home
Gender experiences that can increase capacities for managing disaster situations: women	**Gender experiences that can increase capacities for managing disaster situations: men**
- Social networking - Caring abilities - Extensive knowledge of communities - Management of natural and environmental resources - High levels of risk awareness	- Professional and work contacts - Technical abilities - Limited childcare responsibilities

Women and girls are particularly vulnerable in post disaster situations, because they lack land and other assets that could help them cope. Therefore, they are more likely to face food shortages, sexual harassment, unwanted pregnancies, trafficking and vulnerability to diseases and could be forced to drop out of school or marry earlier. If gender is not taken into account, there is also a danger that post-disaster recovery grants will favor men over women, thus reinforcing gender inequalities.

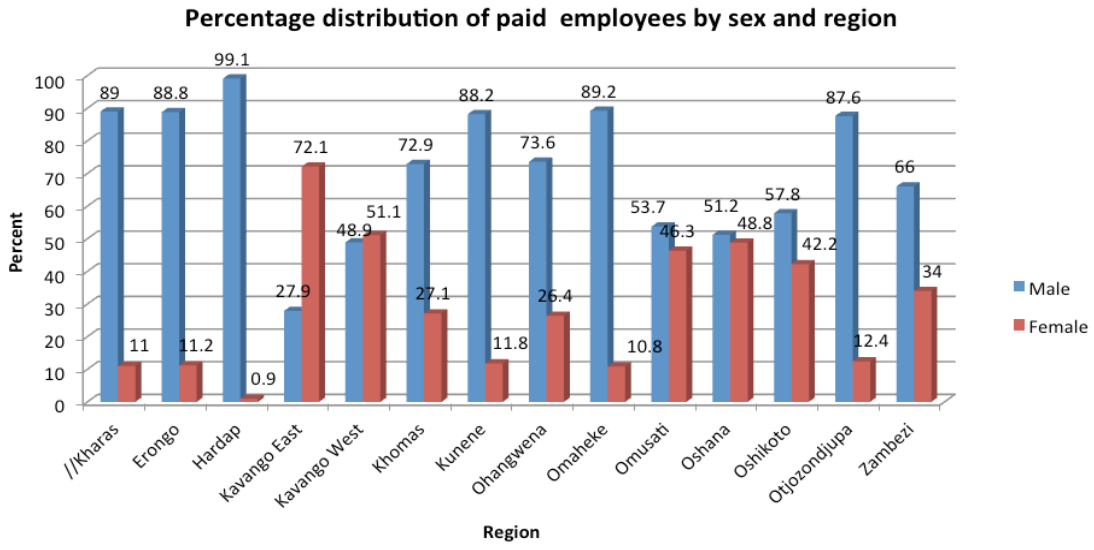
4 SOCIO ECONOMIC ASSESSMENT

4.1 Agriculture

The total population within the agricultural households for the communal sector was 907 715 of which 417 566 (46.0%) were male and 490 149 (54.0%) were female (NSA, 2015). The result indicates that Hardap, //Karas, Erongo and Omaheke regions had the highest differences between the males and females population in the range of 15 to 28 percent as compared to the national difference of eight percent. The highest number of agricultural household population for both sexes was recorded in Omusati region (243,619) with Khomas region recording the lowest number of agricultural household figures for both sexes at 259**.**

The distribution of paid employees in the agricultural households in the communal areas in the country by sex and region shows that the total number of reported paid employees in the agricultural households was 100 414, which comprises of 51 419 (51.2%) males and 48 995 (48.8%) females. The table also indicates that Kavango East region recorded the highest percentage of paid female employees with 72.1 percent followed by Kavango West region with 51.1 percent. NAC 2013/14 present that in Zambezi the agricultural households' members that are involved in paid work constitute of 66% of male and 34% female engaged as paid employees.

Figure 3: Percentage distribution of paid employees by sex and region (NSA, 2013)

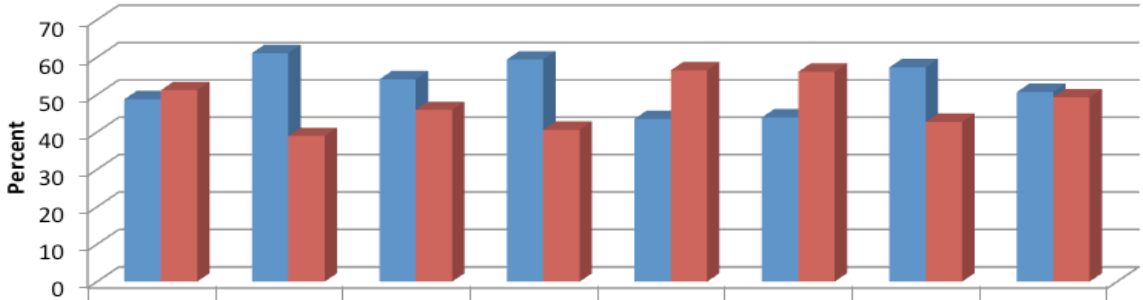


The female population in the agricultural households is in the majority in some of the economic activities such as Agricultural services (51.2%), Manufacturing (56.5%) as well as in Wholesale and retail trade industries (56.1%). Otherwise, the male population dominated the Hunting, trapping, game propagation; Forestry, logging and related service; Fishing, aquaculture and related service activities, as well as in Hotels and restaurant activities.

4.2 Household Source of Income

The Namibia Agricultural Cense in all communal and semi-urban areas in Namibia, including the three CRAVE regions in 2013/14 and revealed that, the female population in the agricultural households is in the majority in some of the economic activities such as Agricultural services (51.2%), Manufacturing (56.5%) as well as in Wholesale and retail trade industries (56.1%). Otherwise, the male population dominated the Hunting, trapping, game propagation; Forestry, logging and related service; Fishing, aquaculture and related service activities, as well as in Hotels and restaurant activities.

Figure 4: Percentage of agricultural household population by sex and type of economic activity other than agriculture



	Agricultural services	Hunting, Trapping, Game propagation and	Forestry, Logging and Related service activities	Fishing, aquaculture and related service activities	Manufacturing	Wholesale and retail trade	Hotels and restaurants	Other
Male	48.8	61.1	54.1	59.4	43.5	43.9	57.3	50.7
Female	51.2	38.9	45.9	40.6	56.5	56.1	42.7	49.3

Other Economic Activity

Furthermore, other income sources of the agricultural households' population by the sex shows that the majority of the females derived extra income from economic production (51.9%), external remittances (52.9%) as well as from old age pension grants (55.7). In contrast, the male population was dominant in deriving extra income from paid employment (59.3%), from investment income (53.0%), pension income (53.8%), internal remittances)(52.7%), veteran social grants (56.2%) and Social grants (53.6%).

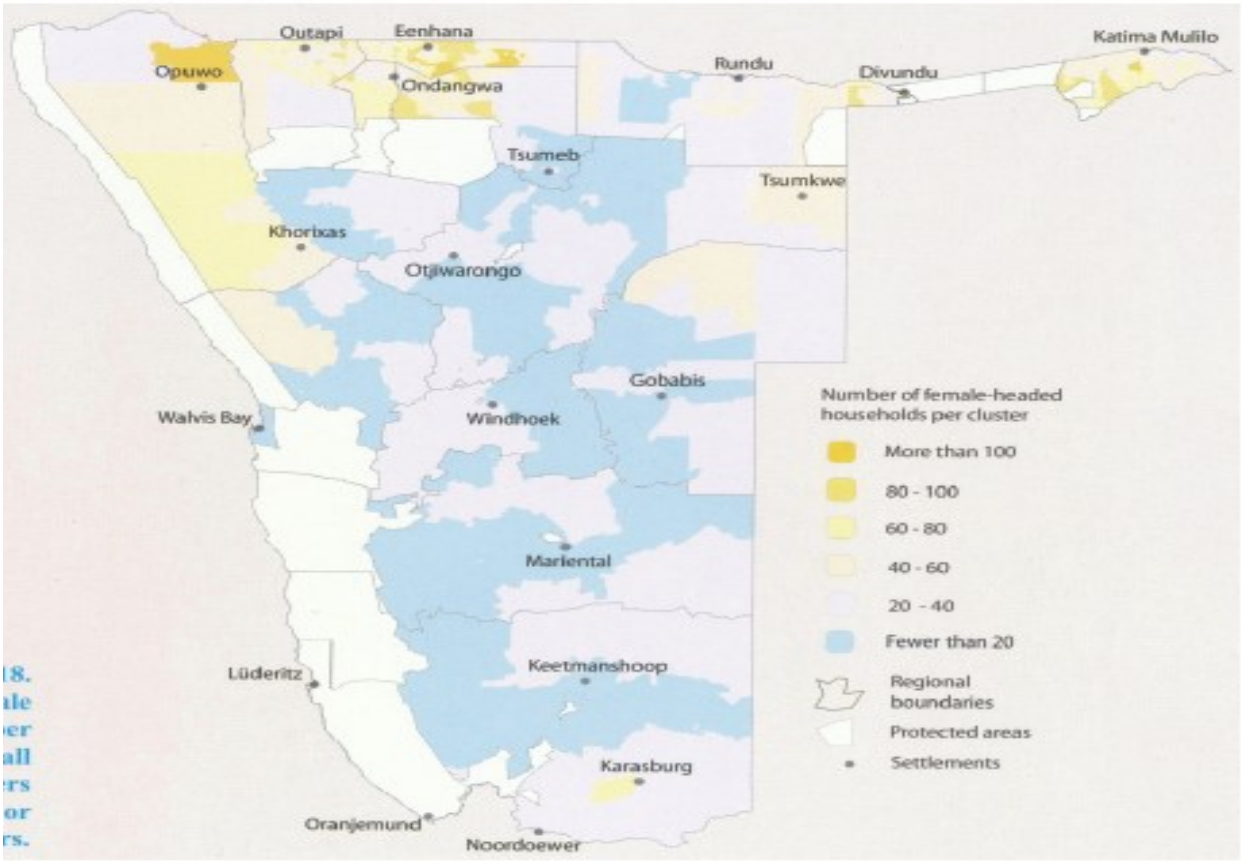
The total agricultural households members involved in agricultural activities were 609 211 of which 452 283 were permanent workers while 156 928 were temporary workers (Table 12.1and Figure 12.1). Of the total adult males and females engaged in agricultural work, 71.7 percent of males and 78.9 percent of females were permanently engaged in agricultural activity. The majority of boys and girls in the agricultural households who are engaged in the agricultural work were permanently engaged (69.5 % for boys and 71.4 % for girls).

4.3 Women Headed Households

Variability and climate change understandably varies among specific regions and socio-economic groups in Namibia, in the sense that those with the least capacity to adapt are generally the most vulnerable to the impacts of climate variability and change. In turn this depends in great part on which resources are available to a given group, individual or region. Livelihood vulnerability to climate change is acute in the Zambezi, Kavango East and West, Omusati, Ohangwena, Oshana, Kunene, Otjozondjupa and Omaheke regions. In these regions, the regional and household livelihood system is based on subsistence production on communal land, i.e. on small crop plots that surround people's homesteads, whilst livestock is largely grazed on open access common pastures and woodlands (Mendelsohn, 2006).

These female-headed households, which represent about a fifth of total households, also have a significantly higher overall incidence of extreme poverty. Women in Namibia tend to have unequal access to resources and control over resources particularly in rural areas (Iipinge et al., 2000). This makes women more vulnerable to poverty.

Figure 5: Relative distribution of female-headed households in Namibia, V&A 2015



Climate change exacerbates these existing social problems. Gender equality including fairness, just and equitable access to all resources, is an important priority in Namibia‘s National Development Strategy. The strategy acknowledges that gender issues have not been adequately addressed in most of the major government strategies. The specific vulnerability of women in Namibia is notable in a number of areas. For example, almost half of the severely food insecure households are headed by a woman, as well as one third of the moderately food insecure. Orphans are more common in female headed households compared to male headed households (NSA,). Orphanhood is more prevalent in rural areas than in urban areas with 14 percent of urban households having orphans compared to 29 percent of rural households.

4.4 Gender Inequality

The disparities in income, employment, and access to resources with regards to gender in Namibia are equally clear. Unemployment amongst women is higher in both rural and urban areas (52.8% and 35.7%) compared to men (41% and 25.8%). Of the economically inactive section of the Namibian population, 14.9% are classified as homemakers, with women accounting for the vast majority (CBS, 2008). Women are the bulk of caregivers, yet are considerably under-represented in the formal economy, especially the managerial level (EEC 2011). Female-headed households, which are some 40% of the total, have a per capita income of N$ 7 528, in contrast to male-headed households with a per capita income of N$ 12 248. These figures point to a large number of single mothers and to the continued economic marginalization of women in Namibian society (CBS, 2006).

The Agricultural Survey of 2010 shows that in all regions female-headed households own fewer head of cattle per household than male-headed households, primarily due to customs which view cattle as a 'man's property' and hinders women's accumulation of cattle as a form of wealth. With the exception of the Zambezi, female-headed households also own fewer goats, chickens and donkeys. In addition, women who live within male-headed households are typically not able to own livestock in their own right. This limited access to livestock means that women lack access to the benefits of ownership, including access to meat, income from the sale of meat/animals, dung for fertiliser, and draught power. The lack of draught power for ploughing also means those female-headed households usually have lower yield and smaller cultivated areas.

4.5 Gender Analysis by Sector

4.5.1 **Labor Input**

In all the three CRAVE regions, female household heads are more likely to work full-time on the holding, while male household heads are more likely to work part-time, seasonally or casually on the holding. The total agricultural households members involved in agricultural activities were 609 211 of which 452 283 were permanent workers while 156 928 were temporary workers (NSA, 2014). Of the total adult males and females engaged in agricultural work, 71.7 percent of males and 78.9 percent of females were permanently engaged in agricultural activity.

The majority of boys and girls in the agricultural households who are engaged in the agricultural work were permanently engaged (69.5 % for boys and 71.4 % for girls). The total number of reported paid employees in the agricultural households was 100 414, which comprises of 51 419 (51.2%) males and 48 995 (48.8%) females.

Animal husbandry is almost exclusively a male domain, although herding small stock is sometimes done by women (16%) and feeding livestock has a 50/50 gender division of labour. While adult men are primarily responsible for animal husbandry tasks, boys and senior men may also participate. Adult men account for almost half of the work force for herding large stock, while the distribution along age and sex lines is a little more egalitarian with regard to small stock, with boys (23%) more likely to be herders than girls (7%).

4.5.2 **Education Sector**

Namibia has made progress since independence in making education accessible to all. The Net Enrolment Rate (NER) for learners in primary school increased between 1992 and 2010 from 89% to 98.7% (94.4% girls versus 92.7% boys). Youth literacy rate has slightly increased to 95 percent up from 93 in 2003/04. In this age group literacy is slightly higher for females than for males with the figures being 96 and 94 percent, respectively. The urban/rural divide is again visible, with 98 percent of the urban population aged 15 to 24 years being literate compared to 93 percent in the rural areas. In Kunene, Omaheke and Otjozondjupa regions, 25, 22 and 15 percent respectively of the population aged 15 to 24 are not literate.

The NER for grades 1 - 10 is higher for girls age 7 – 16 than for boys of the same age group (94.2% versus 91.8%), with girls age 14-18 having a NER of 52.4% versus 43.9% for their male counterparts. Girls had higher promotion rates in the lower grades of the secondary level, while boys do better from Grade 7 through Grade 11, meaning that boys (56.2%) are more likely than girls (42%) to pass from junior secondary to senior secondary school levels. This is caused by the higher number of girls who leave school due to pressures at home and teenage pregnancy.

4.5.3 **Water Sector**

Data indicate that 92% of all households in 2010 (80% rural and 98.4% urban) had access to clean potable water for drinking and cooking, compared to only 65% of households in 1991 (NSA, 2014). Over half of households have water piped into their homes (considered to be

reliable, safe and adequate), but 78% of these households are situated in formal urban areas, while rural households use communal taps (33.3%), safe boreholes (10.6%) and rivers, dams or water canals (10.6%). Given that female-headed households are more likely to be found in the rural areas, it can be surmised that they will also be less likely to have access to potable water. In urban areas female-headed households are less likely than male-headed households to have piped water inside the house (20.8% versus 33.7%), while for rural areas female-headed households are more likely to use free public water taps (27.7% versus 16.8%) and boreholes (9.8% versus 5.4%).

While most households have access to potable water, the data do not represent distances people must travel to access these supplies. Approximately one-third of rural households live more than 500 metres from their water source, with an additional 12.7% living a kilometre away and 15% living more than one kilometre away. These data indicate a substantial outlay in household energy (usually by women or girls) in time and distance for the collection of water. Although it would seem intuitive that development projects aimed at the provision of water points might decrease water collection times, in fact, this can cause an increase in household water consumption, which actually increases time spent on such tasks.

4.5.4 **Energy Sector**

Most energy sources consumed at the household level are either electricity or 'traditional fuels' such as wood, charcoal and animal waste, with about 60% of Namibians using traditional fuel sources (NSA, 2012). The Namibian Census indicates that 52% of all households in 2010 (9.5% rural and 67.6% urban) used electricity for lighting, compared to 24% of households in 1991. However, 23.9% of urban households use candles for lighting, while rural households are more likely to use candles (41.5%), wood (21.8%) and paraffin (21.1%) for lighting their homes.

The Levels of Living Survey (NSA, 2012) indicates that female-headed households are more likely than male-headed households to cook without electricity (64% versus 58%) and they are also more likely to light without electricity (66% versus 57%). These energy consumption patterns suggest that female-headed households are located in rural areas/informal settlement where access to electricity is low and/or either have lower incomes and/or different priorities for expenditures. In addition the heavy reliance on wood in the rural areas for energy consumption

means that the most likely persons to be affected by woodland depletion, which results in longer time spans and distances needed to be covered to collect firewood, are women.

4.6 Poverty Levels

Poverty eradication remains an overarching government priority. Government's main target is to reduce the proportion of severely poor individuals to below 10% by the year 2017. Currently, about 29.0% of the Namibian population lives below the poverty line while about 15.0% are severely poor (NSA, 2012). The poverty gap, which estimates the consumption shortfall relative to the poverty line, is estimated at 8.8%. Poverty levels are highest in Kavango and lowest in Erongo at 55.2% and 7.1%, respectively and are highest in rural areas where more than one third (37.4%) of the population are poor compared to 15% in urban areas. Furthermore, poverty is highest among women, subsistence farmers, pensioners, those with no formal education and those who speak Khoisan and Rukavango as their main language. On average, poverty has declined in almost all regions except in Khomas and Caprivi regions which showed an increase.

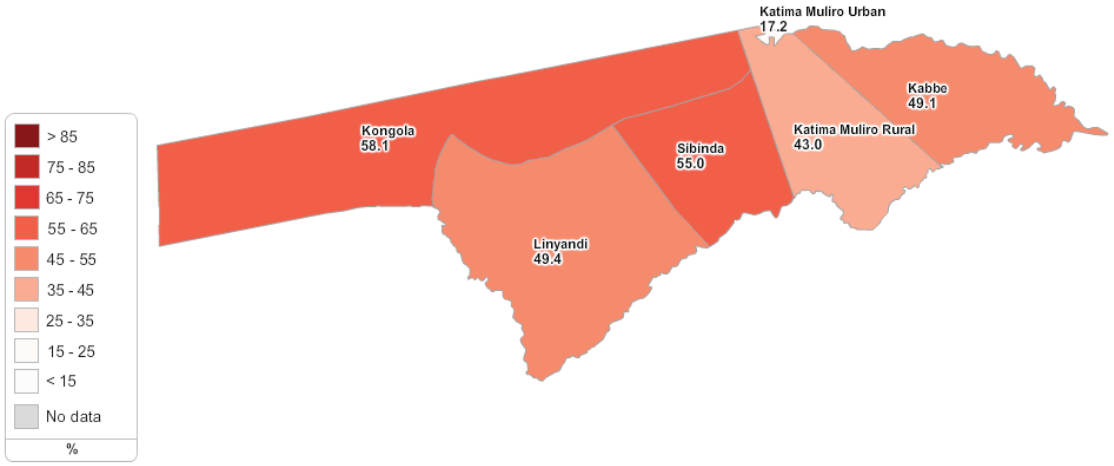
Although only 15% of the population is severely poor, more than one third of the population in Kavango (East and West) and Zambezi regions are severely poor while the rate is at 22% in both Oshikoto and Otjozondjupa (NSA, 2012). The Kavango regions accounts for about 31% of the severely poor people in Namibia. Oshikoto and Zambezi accounts for about 7.8% and 4.9% of the population with prevalence rates for severely poor individuals of 21.8% and 35.2%, respectively and thus contributes about 11% to the total number of severely poor individuals. By implication as per the population dynamics, there are more females living below the poverty lines than man in three CRAVE regions than other regions of Namibia. Therefore, if we are to achieve our target of reducing the proportion of severely poor individuals to below 10%, our interventions should target Kavango (East and West) and Zambezi regions.

5 REGIONAL GENDER PROFILES

5.1 Zambezi Region

The Zambezi region, known as “The Arm of Namibia”, is situated on the north-eastern part of Namibia. It connects Namibia to four neighbouring countries - Botswana in the east and south, Zimbabwe in the north-east, Zambia in the north and Angola in the north-west. Within the country, it borders with Kavango region to the west. The region is divided into seven constituencies namely: Kabbe, Katima Mulilo Urban, Katima Mulilo Rural, Kongola, Lyamboroma, Linyanti and Sibbinda. The region is also known for its ever green vegetation and abundant wildlife as a result of good annual rainfall. Zambezi region has a total number of 36 243 agricultural households made up of 48% of male and 52% female with an average of 4 – 5 persons per household. It is also noted that, most of the agricultural households are owned by old aged people with the household composition mainly made up of children under the age of 15 years (NSA, 2013).

Figure 6: Zambezi Region Poverty Headcount Rate in 2011 (upper bound poverty line)



In 2001, poverty incidence in Zambezi was estimated at 32 percent, with no single constituency having more than half of its population living in poverty. By 2011, the regional poverty incidence had increased by 7.2 percentage points (NSA, 2012). This means that in 2011, 10 060 more people were living in poverty, while the number of non-poor had increased by just 710 people. Poverty is highest in Kongola and Sibbinda constituencies at 58 percent and 55 percent, respectively, and lowest in Katima Mulilo Urban at only 17 percent. About 53% of the

populations are females in the Zambezi region, implying that there are more females in poverty than man. In terms of percentage change, however, the highest increase, of 11 percentage points, in the incidence of poverty over the 2001 to 2011 period was recorded in Katima Mulilo Urban and Kongola constituencies (NSA, 2012). Despite its low poverty rate, Katima Mulilo Urban contributed about one third (34 percent) of the increase in poverty, with an increase of 3 425 poor people, while Linyati accounts for 19 percent, Katima Mulilo Rural 15 percent and Sibbinda 14 percent of the increase. Figure 5 presents colour-coded poverty levels, with the darker colour indicating higher incidence of poverty. As is evident from the map, the two poorest constituencies are Kongola and Sibbinda.

5.1.1 **Population**

The 2011 Namibia Population and Housing Census results show that Zambezi has a population of 90,596 people of which 46,497 are women and 44,099 are men. The population is growing at an annual rate of 1.3 percent between 2001 and 2011 (NSA, 2012). The majority of the population of the region - about 69 percent - live in rural areas. Approximately 60% of the population depends on agriculture and natural resource utilization for their livelihood. It is estimated that 61% of the population aged 15 years and above were economically active (NSA, 2012).

5.1.2 **Education**

The literacy rate in urban areas stood at 96 percent while in rural areas it stood at 78 percent. Furthermore, the table shows that the literacy rate was highest in Katima Mulilo Urban (96.3%) and lowest in Kongola (69.0%) respectively (NSA, 2013). The literacy rate for youth aged 15 - 24 years in Zambezi is 93 percent, with a higher proportion of females (94.2%) than males (92.3%) being literate. The rate is again higher in urban (98%) than rural areas (91%). The literacy rate for young females in rural areas was 2.7 percentage points higher than males, while in urban areas the literacy rates were almost the same for males and females, with a difference of only 1 percent (NSA, 2015). The school enrolment rate is higher in urban areas (90%) than in rural areas (85.3%). The census further shows that more girls in this age group were enrolled in school than boys. At constituency level, the highest enrolment rates were recorded in Katima Mulilo Urban (91.6%) and Katima Mulilo Rural (90.1%).

5.1.3 Labour Force Participation Rate

The labour force participation rate is the proportion of economically active people in a given population group. This is calculated as the number of economically active people in the population, divided by the total population in the same population group. The labour force participation rate for Zambezi region is 60.6 percent. The rate is higher for males (65.6%) than for females (56.0%), both regionally as well as in rural and urban areas. At constituency level, labour force participation rates were high in Kabbe and Katima Mulilo Urban (65.8%) and very low in Sibbinda constituency (29.2%). The labour force participation rate for females was lower in all the constituencies.

The agriculture sector is the main employer in the region, accounting for 42 percent of employment. It is followed closely by the public sector at 22 percent (NSA, 2012). The tourism sector contributes only about 3 percent of the employed population. Skilled agricultural/fishery workers makes group (41.7%) followed by service workers (15.8%), elementary occupations (13.0%) and professionals (8.9%). There are no significant differences between females and males among the top three occupational groups. However, craft and related trade workers were dominated by males (9.8%) compared to females (4.9%). On the other hand, more females than males worked as professionals, clerks and service workers. The populations in these constituencies are largely rural, eking a living from subsistence agriculture (livestock rearing and crop farming).

5.2 Kavango East and West

Available secondary data was undertaken before the Kavango region was dividend into East and West Kavango. The two Kavango regions are dominated by the Kavango River and its broad flood plains, which makes the area considerably greener than the rest of Namibia. The river forms a natural border between Namibia and Angola for more than 400km, and is a lifeline for the people of the region. The region's inhabitants make a living mostly from fishing, tending cattle and cultivating sorghum, millet and maize. The Kavango region has 9 constituencies: Kahenge, Kapako, Mashare, Mpungu, Mukwe, Ndiyona, Rundu Rural West, Rundu Urban and Rundu Rural East. About 49% male and 51% female agricultural population in Kavango west region are involved in paid work apart from their agricultural activities, (NSA, 2012). According

to the (NLFS, 2013), about 41% of the households in the region their main source of income is subsistence agriculture (crop and animal production).

Figure 6: Kavango East and West Regions Poverty Headcount Rate in 2011 (upper bound poverty line) (NSA, 2012)

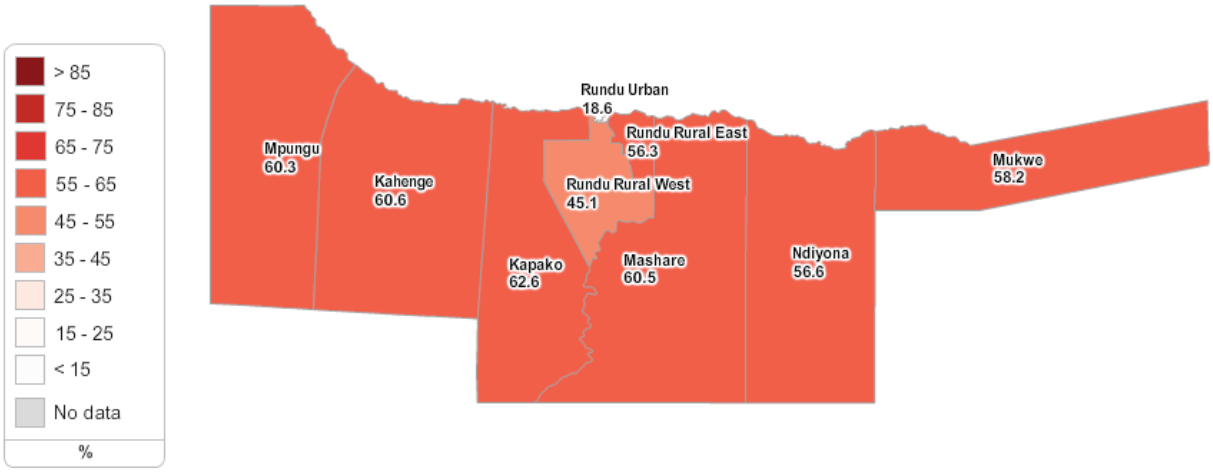


Figure 6, above, shows that, with the exception of Rundu Urban and Rundu Rural West constituencies, in all the constituencies in Kavango region more than half of the population is poor. The two Kavango regions are the fourth and fifth most populous region in the country with a population of 223 352, accounting for 11 percent of the total national population (NSA, 2014). Between 2001 and 2011, the regional population grew by 1 percent per annum, that is, more slowly than the national rate. The region has a population density of 4.6 people per km2.

In terms of changes in the incidence of poverty over time, the greatest decline was reported in Mashare, Ndiyona and Rundu Urban constituencies, which recorded reductions of 14.7, 12.8 and 11.8 percentage points, respectively between 2001 and 2011. Over the 2001 to 2011 period, the poverty headcount rate declined in all of the constituencies, with the exception of Kahenge and Kapako. Kapako recorded an increase of about 7 percentage points in poverty headcount.

5.2.1 **Population**

The 2011 Namibia Population and Housing Census results show that Kavango had a population of 223 352 people of which 118 591 were women and 104 761 were men. The population grew at an average annual rate of 1.0 percent between 2001 and 2011. The majority of the

population of the region (about 71 percent) lives in rural areas. There are 36 741 households, with an average size of 6.0 persons per household. Between 2001 and 2010, the regional population grew by 2 percent per annum, that is, more slowly than the national rate (NSA, 2014).

5.2.2 **Education**

The literacy rate in Kavango region for the population aged 15 years and above was 79.4 percent. The rate is higher for men (83.6%) than for women (76.1%). Furthermore, literacy rates is higher in urban (87.6%) than in rural (75.9%) areas. Rundu Urban has the highest literacy rate (94.2%), while Mashare has the lowest (72.0%). The rate is again higher in urban (96%) than rural areas (91%). The literacy rate for young women in rural areas was higher compared to men, while in urban areas the literacy rates were almost the same (with a difference of only 0.3 percent).

The percentage of school enrolments for the school-going population between the ages of 5 and 24 years is highest for the ages of 7 to 13 years, exceeding 80 percent, but drops sharply after the age of 17 years (NSA, 2013). The highest enrolment rate is at age 9, where 87 percent of girls and boys are enrolled at school. The lowest enrolment rate is at age 24, where only 7.1 percent of females and males are still enrolled in school. More females than males are enrolled until the age of 14 years. At constituency level, the highest enrolment rate of more than 90 percent was recorded in Rundu Urban.

5.2.3 **Labour Force Participation Rate**

The labour force participation rate for the region is 61.4 percent. The rate is higher for women (62.2%) than for men (60.4%), and this is the same in rural and urban areas (NSA, 2013). However, the labour force participation rate in rural areas (58%) is lower than in urban areas (69%). At the constituency level, Rundu Rural West had the highest labour force participation rate in the region (69.4%), while Kahenge had the lowest (54.3%). The labour force participation rate for women was slightly lower in Mashare, Mpungu and Ndiyona constituencies.

Skilled Agricultural/fishery workers makes up the largest occupational group (59.3%), followed by Service Workers (8.7%), Professionals (8.5%) and Elementary Occupations (6.4%). There

are no significant differences between females and males among the top three occupational groups. However, Craft and related trade work is dominated by men (9.0%) compared to 1.7% for women. On the other hand, more women worked as clerks and within elementary occupations than men.

Agriculture, forestry and fishing is the main industry (60.3%) of the work force followed by education (7.9%). Public Administration and defence/Compulsory Social Security employed 6% and Administrative and Support service activities each employed about 5% of the workforce. Education, Wholesale and Retail trade; Repair of motor vehicles and motorcycles and Accommodation and food serving activities is clearly the domain of women, while men predominately worked in Mining, construction and transport businesses.

6 GENDER PRACTICES IN THE PROJECT AREAS

6.1 Decision Making and Participation

Traditionally, the majority of men plays leadership roles in societies and holds 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 (Angula, 2010). Despite the existence of national policies to promote gender equality, it is evident that gender decision making, especially at local level is still acute. Women from Kavango and Zambezi tribes are not encouraged to participate in discussions at community level. This is supported by Angula (2010) who confirmed that women did not participate fully in some of the previously climate change related projects as there no gender mainstreaming in programme formulation, implementation and monitoring. The Country Pilot Partnership Programme on Climate Change Adaptation is cited as one of the programmes that did not mainstream gender issues.

At local and household level in the two regions, the table below summarises climate change related decisions that men and women make. Table 5 shows a lack of women's voice in decision-making and climate change discussions at local level used the "cultural symbolisms" in the analysis of understanding gender in the three CRAVE regions. 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 society in the project site. Such cultural beliefs inform social practices and values of all ethnic groups. As such, climate change impacts superimposed on these cultural beliefs lead to gender differentiated vulnerabilities. Due to cultural influences, women have limited decision-making power at all levels of governance. There are relatively fewer women in decision-making positions in the country, especially at 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.

Table 4: Gender differentiated decision-making in climate change at local and household level (Angula, 2010)

Men	Women	Causes of vulnerability
• Decisions and interests regarding allocation of resources required for responding to climate change risks. • Decisions regarding severe risks posed by drought, floods, pest outbreaks and other related cli- mate change disasters. • Men are making overall decisions at household level.	• Immediate decisions and interests regarding coping that would ensure food security. • 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. • 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. • 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 CBNRM Programme 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. Between Kavango (East & West) and Zambezi communities, their spouses consult women when major decisions are made.

6.2 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. Additionally, they have limited access to capital, productive land, knowledge and services. These factors decrease resilience and adaptive capacities of men and women differently. Below illustrates that differentiated access to assets, information and financial resources causes differences in the

capacities required to deal with climate change.

Table 5: Gender differentiated access to information, financial resources and assets (Angula, 2010)

Men	Women	Causes of vulnerability
• Men are more interested in world events and news, thereby enhancing their access to information. • Men possess more technical skills that are required to acquire employment in the formal market. • More men have access to credits and markets in the project areas. • Men, compared to women, have access to productive land and rangelands. • More men than women own crop fields	• Women lack skills, information and access to resources required to diversify livelihood strategies. • 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. • 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 in- formation" regarding rain- fall forecast - a key aspect to subsistence farming in Namibia. • Women 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. • 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 migrate 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.

6.3 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 7 below introduces a summary of the impacts of climate change and gender dimension in Namibia.

Table 6: Climate change impacts and gender dimension profile for Namibia (Angula, 2010)

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 travelling distances to fetch water. • Water scarcity limits development of small-scale projects. Majority of women and youth participate in local developmental projects. • 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. • 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. • Men migrate in search for better grazing opportunities or employment opportunities
Environment and Forestry • Loss of biodiversity, shift in dominant vegetation types from grassy to arid and semi-arid shrubland, changes in forest cover (coupled with deforestation)	• Shortage of fuel wood during floods affects cooking and heating in households, traditionally a woman's responsibility. • Women are expected to contribute unpaid labour to soil conservation and re-forestation efforts.
Fisheries • Access to inland fisheries resources compromised during floods in north-east Namibia; increased fish prices due to declining fish stocks.	• Opportunities for women to engage in subsistence fishing during floods. • Reduced fish species used by women for domestic consumption. • 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 caregivers. • Increased vulnerability of maternal and infant deaths due to malaria and other water-borne diseases. • 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.

Rural communities are subsistence farmers, therefore rainfall is the most important climatic variable determining crop yield and maintaining healthy livestock. Women and men in the project areas 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 short- age in the household with their husbands, the 'heads of households'. 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 minimize 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 in- crease the capacity of men and women to diversify their livelihood and to mi- grate 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.

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