

Gender Assessment

FP002: Scaling Up the Use of Modernized Climate Information and Early Warning Systems in Malawi

Malawi | UNDP | B.11/11



**GREEN
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FUND**

Scaling Up the Use of Modernized Climate Information and Early Warning Systems in Malawi (M-CLIMES)

Annex 1: Gender Assessment

1. Introduction

This gender assessment aims to provide an overview of the gender situation in Malawi, with a specific focus on improving access to climate information and disaster early warning systems (EWS). It identifies gender issues and potential gender mainstreaming opportunities that are relevant to the GCF project, “Saving Lives and Protecting Agriculture-based Livelihoods by Scaling Up the Use of Modernized Climate Information and Early Warning Systems in Malawi (M-CLIMES)”.

The project supports the Government of Malawi (GoM) to take steps to save lives and enhance livelihoods at risk from climate-related disasters. It addresses technical, financial, capacity, and access barriers related to weather and climate information (CI). The project does this by investing in enhancing hydro-meteorological capacity for early warnings forecasting, and developing and disseminating tailored products aimed, in part, at smallholder farmers and fishers. The project also works to strengthen capacities of communities to respond to climate-related disasters.

The objective of the project is to reduce vulnerability to climate change impacts on lives and livelihoods, particularly of women. This is due, in part, to a lack of access to tailor-made climate information and disaster early warning systems. The expected key Fund level impact is increased resilience and enhanced livelihoods of the most vulnerable people, communities, and regions. The primary measurable benefits include approximately 1.4M direct and 0.7M indirect beneficiaries (total 12 percent of the population) who will gain access to critical weather information for informed decision making to reduce their vulnerability as well as sustain their livelihoods.

The project is aligned with the Government’s strategies such as the Malawi Growth and Development Strategy and the National Adaptation Programme of Action (NAPA) and was designed following extensive stakeholder consultations. It advances a paradigm shift in the use of early warnings (EWS) and climate information (CI) by facilitating a demand-based model for CI and use of mobile platforms. The project promotes private sector participation and market development. It yields sustainable development benefits by saving lives (18 lives per year) and assets (average USD5M), and enhancing agricultural productivity (annual benefit USD3.8M), safety, well-being, soil and water quality, and livelihoods of women (about 160,000). It yields a positive economic rate of return of 31 percent, leverages domestic financing (USD2.17M), and builds capacities for sustained impact. GCF grant resources address the needs of highly vulnerable populations of Malawi by supporting the non-revenue generating investments in provision of EWs and CI.

The assessment is based upon available data from studies conducted by the Government of Malawi, development agencies, multilateral development banks, research organizations, and non-governmental organizations, and includes:

- i. Desktop review including information and lessons learned from past studies and assessments on gender in Malawi, with a focus on effective climate information and disaster early warning systems; and inventory of existing interventions on gender-responsive climate information and disaster early warning systems in Malawi;

- ii. Rapid stakeholder consultations and engaging women targeted by the project and incorporating all points raised. Stakeholder consultations and engagement were held with women's organizations that promote gender equality at the local and national level;
- iii. Integrating gender considerations and sex disaggregated data into the project indicators, targets, activities, and budget, identifying women as leaders and decision-makers in project delivery; and
- iv. Identifying opportunities for applied research to inform policy directions in Malawi, and project interventions over the duration of the initiative.

2. Background

Natural and climate-related disasters affect both women and men, but often in different ways. Gender inequality, including inequitable social/gender norms, can limit women's access to a wide range of disaster reduction responses. Social and economic inequality lead to different outcomes even in demographically similar communities, with the poorest, most vulnerable often affected the most. Disaster reinforces, perpetuates and increases gender inequality. Moreover, women's ability to contribute to reducing disaster risks can be lost when women are left out of decision-making processes and leadership positions to promote community resilience. Meanwhile, the potential contributions that women can offer to the disaster risk reduction imperative around the world are often overlooked and female leadership in building community resilience to disasters is frequently disregarded.

The Sendai Framework for Action (2015-2030)¹ was adopted at the Third World Conference on Disaster Risk Reduction in Japan in March 2015. Its guiding principle states that 'a gender, age, disability and cultural perspective should be integrated in all policies and practices, and women and youth leadership should be promoted'. The fourth priority action of the Sendai Framework includes empowering women and persons with disabilities to publicly lead and promote gender equitable and universally accessible response, recovery, rehabilitation and reconstruction approaches.

Gender-responsive² planning and preparation for early warning or response to a disaster can reduce mortality and morbidity rates. It can also facilitate equitable distribution of emergency relief, improve safety conditions in relief shelters, and improve mitigation. Appropriate response is based on both general and targeted dissemination of disaster knowledge, which includes information and training. In many countries, including Malawi, women have less access to information than men.³ Education and training to support appropriate and timely response to any early warning should expressly address this and other related concerns. If differences in literacy, method, venue and time of learning and knowledge of legal rights and entitlements are considered, it will ensure that men and women, girls and boys know better how to respond to an early warning for slow or rapid onset disasters. This process can often be initiated in the aftermath of a disaster, leading to better early warning responses in the future.

Building gender-responsive early warning systems requires mainstreaming gender into early warning governance and institutional arrangements as a cross-cutting issue. Knowledge and consensus about key risks faced at community, local and national level are required for continuous hazard monitoring. This is vital for timely and accurate warnings, which are in turn vital for appropriate response. Warning services for the different hazards should be coordinated to benefit from any existing shared institutional, procedural and communication networks. Women and men's local and learned

¹ Sendai Framework for Disaster Risk Reduction. <http://www.unisdr.org/we/coordinate/sendai-framework>

² IUCN. 2015. Stop being so sensitive! The shift from gender-sensitive to gender-responsive action (L. Aguilar) <http://bit.ly/2hM5KuU>

³ Neuman L. 2016. The right of access to information: exploring gender inequities. IDS Bulletin. Vol 47 No. 1 (2016)

knowledge about risks that their community faces must be accessed and used when designing and implementing a monitoring network and an early warning system.

In Malawi, women comprise 70 percent of the agricultural labor force, but they are less likely to engage in cash crop production due to resource, labor and time constraints. The value of assets owned by male-headed households is more than double that of female-headed households and male-headed households are more likely to own agricultural assets.⁴ Women's rates of pay for *ganyu* (short-term rural labouring) are likely to be only two-thirds of men's rates. As household assets are depleted during disasters, women are more likely to engage in sexual transactions and other such risky behaviors to meet household subsistence needs. Male-headed households typically own double that of female-headed households in Malawi.

Women and girls typically care for sick family members. The demands on them immediately prior to - and during -- a disaster are thus different from those of men and boys. These demands are important to consider in rapid onset disasters, when the time between receiving a warning and responding can be limited. Girls are more likely to be withdrawn from school to care for younger siblings or the sick and to assist with domestic and agricultural work in times of need, including disasters. Women also typically have less land and asset ownership and control over production; this gives them less ability to make decisions in times of crisis.

The lack of a gender perspective in dissemination and communication exacerbates the negative impacts of a disaster. For example, in African coastal areas, early warning messages about El Niño were only transmitted to fishermen who were warned that the fish abundance was going to be severely affected and that this could have serious economic implications. Women were not alerted since they were not directly involved in fishing. Unfortunately, those responsible for developing warning messages overlooked the fact that women were the ones in charge of household budgets. By not considering women as important targets in the information dissemination process, communities were not able to develop strategies to save money before the El Niño period, resulting in higher poverty and harsh economic conditions.⁵

Gender issues affect the dissemination and processing of comprehensible early warning messages. Within their social and cultural context, women and men may access information differently. For example, women in South Africa prefer to get information from an extension officer or school while men prefer to access information from the radio. Women notes that their responsibilities limit the time they are able to listen the radio while receiving information on site allows them to ask questions and engage in constructive discussions (UNISDR, 2002). This can have implications for the different types, pathways, and timing of communication of early warning messages. Gender-responsive dissemination and communication systems increase the benefits that a community obtains from these types of initiatives. Women's involvement increases the number of people informed because they are connected to different social networks and often have specific and different communication strategies that take into consideration women's practices, concerns and needs. Being aware of, and understanding, social norms and practices can improve response as well as the planning and administration of relief.

By focusing on tailored climate information and early warning products and services that include information on gender-responsive adaptation strategies, the project will ensure that women are

⁴ Oxford Committee for Famine Relief (Oxfam) (2009). The winds of change: climate change, poverty and the environment in Malawi, Oxfam Report, Oxfam International, Malawi.

http://www.adaptationlearning.net/sites/default/files/resource-files/winds_of_change_malawi_2.pdf

⁵FAO (2016). 2015-2016 El Nino Early action and response for agriculture, food security and nutrition. FAO. Rome. <http://www.fao.org/3/a-i6049e.pdf>

empowered to benefit from the information and can cope with climate change impacts. Many of the project beneficiaries will be women, especially within the agriculture and fisheries sector where they often make up the majority of smallholder farmers and fishing communities, yet are most vulnerable to climate shocks and variability.

3. Objectives

The gender assessment aims to provide an overview of the gender situation in Malawi, with a specific focus on disaster risk and access to tailored and gender-responsive climate information (CI) and early warning (EW) information products and services. The Action Plan lays out actions that align with the overall project to ensure gender issues are integrated throughout.

The assessment identifies gender issues that are relevant to the project, and recommends costed gender mainstreaming activities/opportunities to be integrated into the first annual workplan. The gender analysis undertaken at the onset and design of this project acts as an entry point for gender mainstreaming throughout the duration of project implementation. During project implementation, qualitative and quantitative assessments will be conducted on the gender-specific benefits that can be directly associated to the project, with results incorporated in the Annual Work Plan (AWP), Project Implementation Reports, Mid-Term Report, and Terminal Evaluation.

4. Gender Analysis

The unequal status of women in relation to men in Malawi is shaped by the intersection of poverty, discriminatory customary laws, and inequitable treatment in private and public spheres. Malawi has matrilineal and patrilineal systems that both perpetuate discrimination against women in terms of resource control. Women generally fare worse than men on most social and economic indicators including wage equality, political participation, secondary and tertiary education enrolment, and literacy. However, Malawi has achieved gender parity with respect to primary school enrolments, which indicates an improvement in attitudes towards girls' education⁶.

Climate change also poses a number of challenges to women, by exacerbating natural resources scarcity and increasing women's work burden. As women spend more time searching for firewood and water, they have less time and energy to invest in other activities including ones that can contribute to their economic empowerment including education, training, and income generation.⁷ In some cases, daughters are forced out of school to assist women with farm or house work; this can have long-term implication for girls' empowerment.

Malawi's primarily rainfed agriculture is vulnerable to climate variability and change. In recent times, rainfall seasons have been shorter with late onset and early cessation of rains. The rains have been erratically distributed over the country and dry spells and floods have increased in frequency and intensity. All of these factors have challenged agricultural production, leading to diminishing crop yields. This, in turn, has affected women's and men's assets in different ways, demonstrating the connection between user and resource base. According to the Amsterdam Institute for Advanced Labour Studies (AIAS) country report for Malawi, 83 percent of economically active persons depend on agriculture and related activities. Women dominate the agricultural sector and 97 percent of rural women are engaged in subsistence farming.^{8,9} Women's formal employment in sector is less as most are self-employed in subsistence farming and in minimum-wage earning informal kinds of

⁶ Source: SIGI, Malawi country profile: <http://www.genderindex.org/sites/default/files/datasheets/MW.pdf>

⁷ Kakota T., Nyariki D.M., Mkwambisi D. and Kogi-Makau W. (2011). Gender Vulnerability to Climate Variability and Household Food Insecurity, *Climate and Development*, 3:4, 298-309

⁸ van Klaveren, K.G. Tijdens, N.E. Ramos Martin, M. Hughie-Williams 2009. An overview of women's work and employment in Malawi, AIAS (Amsterdam) <http://staging.ilo.org/public/libdoc/nonigo/2009/458886.pdf>

⁹ NSO 2009, Malawi in figures. Zomba, Republic of Malawi

employment such as *ganyu* (casual labor). These are both highly vulnerable to climate change.

As a result of climate change impacts, women may be forced to sell off assets such as small livestock or seek other means of generating income to support a family. Men's larger involvement in cash crop production and waged labor may mean they are susceptible to wage loss when crops fail, or they may temporarily migrate to other areas in search of other employment opportunities.

Climate-extreme events such as drought may lead to household food insecurity and malnutrition, with different impacts for men, women, and children. These impacts are linked to gendered vulnerabilities contextualized by social and cultural norms. Because women are the main providers of food for their families, they may face greater constraints due to climate events. Resulting increasing vulnerability can also expose women to other risks such as HIV as they resort to engaging in commercial sex work to fend off hunger.¹⁰

Failure to heed basic social policy considerations, including gender equality, can undermine the effectiveness of climate change programmes and policies. In addition to the fact that gender equality is a fundamental human right, there is a strong economic imperative for promoting gender equality in development and climate-related policy.¹¹ The Government of Malawi's Post Disaster Needs Assessment¹² did not extensively assess the impacts of 2015's climate-related floods on women and men, nor the inequalities that resulted. A gap in the gender analysis of the flood impacts in the PDNA ignored the structured roots of gender vulnerability. The PDNA did not address issues of gender-differentiated access to, and control over, information, early warning services, food, training, and health services during and after the floods. Policy makers lacked sex-disaggregated data to inform them on how women and men were differently affected and the interventions needed to prevent and manage disasters in a gender-responsive way.

4a. Gender Inequality Index

The United Nations Development Programme uses the Gender Inequality Index (GII)¹³ and Gender Development Index (GDI).¹⁴ GII is a composite measure showing inequality in achievement between women and men in reproductive health, empowerment and the labour market and with a measure on achievement in human development in three areas: health, education, and command over economic resources. The GDI considers the gender gaps on human development between men and women. Malawi has a GII of 0.611 (2014) and ranks 140 out of 155 countries assessed. The GDI value (2014)¹⁵ is 0.907 with a ranking of GDI Group 4.¹⁶

¹⁰ Oxford Committee for Famine Relief (Oxfam) (2009). The winds of change: climate change, poverty and the environment in Malawi, Oxfam Report, Oxfam International, Malawi.

¹¹ FAO, 2011 State of Food and Agriculture 2010-11 <http://www.fao.org/docrep/013/i2050e/i2050e00.htm>

¹² Government of Malawi. Malawi 2015 Floods Post Disaster Needs Assessment Report. <http://bit.ly/1LUdFRK>

¹³ UNDP. Gender Inequality Index (GII) <http://hdr.undp.org/en/composite/GII>

¹⁴ UNDP. Gender Development Index (GDI) <http://hdr.undp.org/en/composite/GDI>

¹⁵ The GDI is calculated for 161 countries. Countries are grouped into five groups based on the absolute deviation from gender parity in HDI values. This means that grouping takes equally into consideration gender gaps favouring males, as well as those favouring females. <http://bit.ly/2hM35Bu>

¹⁶ Gender Development Index <http://hdr.undp.org/sites/default/files/hdr14-report-en-1.pdf>

The Global Gender Gap Index (GGGI) of the World Economic Forum examines the gap between men and women in four categories: economic participation and opportunity, educational attainment, health and survival; and political empowerment.¹⁷ Malawi's rank out of 145 countries based on the 2015 GGGI is provided below:¹⁸

Description	Score	Rank
Economic participation and opportunity	0.809	12
Educational attainment	0.910	124
Health and survival	0.973	78
Political empowerment	0.113	95
Gender Gap Index 2014	0.701	68

* Inequality = 0.00; Equality = 1.00. Source: The Global Gender Gap Report 2014

The Organization for Economic Cooperation and Development (OECD) developed the Social Institutions and Gender Index (SIGI), a composite index that scores countries (i.e., 0 to 1) on 14 indicators grouped into five sub-indices: i) discriminatory family code; ii) restricted physical integrity; iii) son bias; iv) restricted resources and assets; and restricted civil liberties to measure the discrimination against women in social institutions across 160 countries. The 2014 SIGI value for Malawi is 0.273 suggesting that discrimination against women is medium.¹⁹

4b. Poverty

Climate change does not impact all women and men in the same way. Rather, it impacts men and women differently depending on their gender, age, ability, livelihood strategy, and geographic location (rural/urban/coastal/inland), among other factors. Strikingly, it affects the most vulnerable in a population – often the poorest women and men – although this may be in different ways as highlighted elsewhere in this analysis.

Overall, Malawi ranks 173 out of 188 countries and territories with its score of 0.445 (2014)²⁰ on the Human Development Index (HDI).²¹ It is therefore important to consider issues of poverty in the design and implementation of climate information services and early warning systems in Malawi. It is also important to note that progress has been made over the years. Between 1980 and 2014, Malawi's HDI value increased from 0.278 to 0.445, representing an increase of 60.2 percent. This translates into an average annual increase of approximately 1.40 percent. Between 1980 and 2014, Malawi's life expectancy at birth increased by 18.0 years; mean years of schooling increased by 2.5 years; and expected years of schooling increased by 6.0 years. Over sixty-six percent of the population are multi-dimensionally poor while an additional 24.5 percent live near multidimensional poverty. The breadth of deprivation, (average of deprivation scores experienced by people in multidimensional poverty), is 49.8 percent. The Multi-Dimensional Poverty Index (MPI), which is the share of the population that is multi-dimensionally poor, adjusted by the intensity of the deprivations, is 0.332.

¹⁷ World Economic Forum. Economies. Malawi. <http://reports.weforum.org/global-gender-gap-report-2015/economies/#economy=MWI>

¹⁸ World Economic Forum. Economies. Malawi. <http://reports.weforum.org/global-gender-gap-report-2015/economies/#economy=MWI>

¹⁹ OECD. Social Institutions and Gender Index 2014. Country Profiles <http://www.genderindex.org/country/malawi>

²⁰ UNDP. Human Development Report 2015. http://hdr.undp.org/sites/all/themes/hdr_theme/country-notes/MWI.pdf

²¹ For more about UNDP's Human Development Index (HDI) and how it is derived, see UNDP. Human Development Report 2015. http://hdr.undp.org/sites/all/themes/hdr_theme/country-notes/MWI.pdf

The multidimensional poverty headcount is 5.5 percentage points lower than income poverty. This implies that individuals living below the income poverty line may have access to non-income resources.

4c. Health

Climate change is having detrimental effects on human health, from impacts to food and nutrition security to increased disaster risks (droughts, floods) and other. Climate related and other disasters tend to exacerbate existing gender inequalities in health. Globally, climate-related disasters such as droughts, floods and storms kill more women than men. They also tend to kill women at a younger age and those from poorer socioeconomic groups.²² Women often have poorer nutritional outcomes than men; these are often exacerbated with drought and floods. They also are more prone to nutritional deficiencies because of their specific nutritional needs related to pregnancy and lactation.²³ Women and men are differently impacted by climate change depending, in part on social/gender norms, responsibilities, participation in decision-making, access to resources, information and services (including climate information), and mobility. Climate change increases chronic ailments associated with malaria, cholera, and diarrhea – often impacting women more also in part because they increase women’s burden providing care to others.

Access to climate information and early warning can help communities and countries prepare -- providing access to clean water and food. Water scarcity can cause health problems for women (e.g. lack of clean water for drinking water and sanitation; labour burden from carry water longer distances). This can also put them at greater risk (e.g. attack, sexual assault). Access to climate information and early warning allows women to be involved in disaster preparedness and formulating short and long-term responses to climate change. This means ensuring their needs and interests are included, in terms of food, sanitation and other health related needs. When women are actively involved, they are less likely to suffer depression. Experience from elsewhere also shows that gender-sensitive community education on early warning systems and hazard management that can reduce the number of deaths in times of disaster with all members being prepared to evacuate in times of disaster.²⁴

4d. Education

All DRR policies, plans and decision-making processes, including those related to risk assessment, early warning, information management, education and training should include a gender perspective, in line with the Hyogo Framework.²⁵ A lack of education can constrain women’s access to information, including climate information and their ability to understand early warning messages. It also limits their ability to prepare and respond to disasters.²⁶ The impact of disasters – including climate-related disasters – can also impact women’s and girls’ access to education. For example, often after a disaster, many girls are forced to drop out of school to help with chores in the house, or to save money.²⁷

In Malawi, policy makers and educators have made education for girls, especially in rural areas, one of the major concerns for meeting the Sustainable Development Goals (SDGs). This is important in light of women’s and girls’ need to access and use climate information and early warning systems to

²² WHO. Gender, climate change, and health. <http://bit.ly/2iBYqGg>

²³ UNISDR, UNDP and IUCN (2009). Making Disaster Risk Reduction Gender-Sensitive Policy and Practical Guidelines. <http://bit.ly/2iBYqGg>

²⁴ WHO. Gender, climate change, and health. <http://bit.ly/1Qkkwlt>

²⁵ UNISDR, UNDP and IUCN (2009). Making Disaster Risk Reduction Gender-Sensitive Policy and Practical Guidelines. <http://bit.ly/2iBYqGg>

²⁶ UNISDR, UNDP and IUCN (2009). Making Disaster Risk Reduction Gender-Sensitive Policy and Practical Guidelines. <http://bit.ly/2iBYqGg>

²⁷ UNISDR, UNDP and IUCN (2009). Making Disaster Risk Reduction Gender-Sensitive Policy and Practical Guidelines. <http://bit.ly/2iBYqGg>

prepare for, and take effective action during, climate-related disasters. Education in Malawi has been free since 1994. Yet, the youth literacy rate (15-24 years) for girls is 70 percent and for boys 74 percent.²⁸ For adult females, the rate is 51 percent²⁹ and for adult males, 72 percent.³⁰ Gender parity is at 1:1 in the lower grades of primary schools although disparities emerge at higher levels (e.g. Standard 4). Less than 25 percent of girls finish primary school while for upper primary level the promotion rates for girls are significantly lower than that for boys (74 percent vs. 70 percent at Standard 6, 74 percent vs. 63 percent at Standard 7, and 69 percent vs. 54 percent at Standard 8, respectively.) Girls have a high rate of absenteeism, dropout and failures; factors that increase dropout rate and affect girls' education are pregnancies, early marriages and family responsibilities. The Ministry of Education introduced the re-admission policy in 1993 to address the high dropout rates among girls due to early marriages and pregnancies. The policy was reviewed in 2006 to make it more effective. Before this policy, girls who dropped out due to pregnancies were not allowed to re-register especially in government schools. This increased the illiteracy levels among women.

With assistance from development partners (e.g. FAWEMA, United Nations Children Fund (UNICEF), ActionAid, Link Community Development, traditional authorities such as T/A Kwataine of Ntcheu, etc.), Malawi has implemented a number of initiatives to improve girls' education. Such initiatives include establishing Mother Groups in schools which provide counselling and guidance for girls on issues such as dropping out. Mother Groups also include other activities to bring awareness, such as ensuring girls are not victims of social practices detrimental to their education; follow-up programs for girls at risk, building bathrooms for girls; and encouraging girls who have left school to return.

e. Political participation

Structural gender inequities often render women's economic, political and social status inferior to that of men.³¹ Discriminatory socio-cultural norms, cultural beliefs, lower social economic status relative to men, and community expectations may also restrict women's political participation³² including critical climate decision-making processes. They may also lack the minimum education requirement to stand as a Member of Parliament (MP) or Ward Councilor. In addition, women often have weaker economic power due to a lack of ownership of assets which might otherwise strengthen their status in their community. Yet women have an important role to play in relation to addressing the impacts of climate change, including contributing to policy and programming on the development and implementation of gender-responsive and socially-inclusive climate information and early warning systems. This is important in Malawi, where women are underrepresented in decision-making positions at all levels, including participation in politics even there is a constitution and policies that promote gender equality in all positions of national importance.

Further, very few women hold leadership positions within their political parties; typically, they play more supportive roles, especially on women's affairs. Women are more likely to be elected as a leader of the "women's wing" of a party, a section whose membership is women only. The trend is the same at the district and constituent levels where most of the leadership positions are occupied by men. At the highest level, Malawi had their first female president from 2012-2014 (second female president in Africa), but this was attained through constitutional requirements, rather than through elections. While women's participation in politics is low overall, there was an increase in their participation between 1994 (6 percent) and 2009 (23 percent), in part attributed to the "50-50 Campaign" for

²⁸ UNICEF. State of the World's Children 2015. Statistical tables. Education (Accessed 22 Dec. 2016) https://www.unicef.org/infobycountry/malawi_statistics.html

²⁹ World Bank. Data (Accessed 27 December 2016) <http://data.worldbank.org/indicator/SE.ADT.LITR.FE.ZS>

³⁰ World Bank Data Accessed 27 December 2016 <http://data.worldbank.org/indicator/SE.ADT.LITR.MA.ZS>

³¹ Lambrou, Y., & Piana, G. (2006). Gender: The missing component of the response to climate change. Rome: FAO. <ftp://ftp.fao.org/docrep/fao/010/i0170e/i0170e00.pdf>

³² UNDP (2010). [Gender, Climate Change and Community-Based Adaptation](http://bit.ly/2ifA3O2), UNDP, New York. <http://bit.ly/2ifA3O2>

women's participation during the 2009 election. However, this was still below the recommended 30 percent women participation in the SADC region. The number of women in parliament saw further reductions in 2014 to 16.6 percent, although there was an increase in the participation of women during elections. The results for the district council seats were even worse with women occupying only 12 percent of the councilor's seats; women were not elected as members of parliament in 10 out of the 28 districts.

f. Decision making

Discriminatory socio-cultural institutions (norms, laws, policies, customary laws and practices)³³ and inequitable gender relations can limit women's decision-making. As noted elsewhere, women's active participation in decision-making around the development and implementation of climate information services and early warning systems is important to ensure gender-responsive, socially inclusive efforts to disaster preparation and response. This is important in Malawi, where women are underrepresented in political processes and where they often experience inequitable gender relations in their households and communities. Intra-household and community decision-making is complex, cutting across lines of gender, age, socio-economic group, and other dynamics. Some households may have co-wives; others may be female-headed. Importantly, climate information and early warning systems design and implementation must understand household and group dynamics and power relations from a gender and social inclusion perspective to ensure effective systems are developed and implemented to support communities. It is also important to ensure women's as well as men's voices are heard in the process (including those of youth, the elderly, people living with disabilities).

NASFAM has indicated that women have less voice in agricultural decision-making while at the same time investing "more effort, labour and time but benefit[ing] less" financially or otherwise. To this end, NASFAM has been integrating Gender Action Learning Systems (GALS)³⁴ in their programming to address these inequities at household level and beyond. This has built on a focus of "Success through improved gender relations." To date, they have trained 30 GALS Champions from Lilongwe, who trained 240 from Mangochi, Balaka, Lilongwe, Mchinji and Kasungu who, in turn, trained more than 3,000 other Champions (mostly women). The GALS approach has been used to improve intra-household and group (e.g. Farmers Groups) decision-making and relations and to "shift attitudes about men and women working together."³⁵ This shifting of attitudes, and creating space for women's active participation and equal voice in decision-making, should be important considerations in designing gender-responsive and socially inclusive climate information services and early warning systems.

g. Labour force

According to Malawi's 2013 Labour Force Survey,³⁶ a total of 5.5 million people were employed, representing an employment rate of 80 percent. A majority of employed persons were absorbed in agriculture, forestry and fishing (64 percent) and wholesale, retail, and motor vehicle repair (16 percent). Men have a higher employment rate than women at 86 percent and 74 percent respectively. The female and male shares of employment in senior and middle management are very low at 0.32 percent for males and 0.07 percent for female although the proportion is higher in urban areas than in rural areas. Women's and men's representation in high status occupations also appears to be positively related to one's level of education.

³³ NASFAM (May 19 2016) Fostering gender balance and women empowerment: Key for responsible investment in agriculture (Presentation) <http://bit.ly/2icjoZk>

³⁴ NASFAM (May 19 2016) Fostering gender balance and women empowerment: Key for responsible investment in agriculture (Presentation) <http://bit.ly/2icjoZk>

³⁵ NASFAM (May 19 2016) Fostering gender balance and women empowerment: Key for responsible investment in agriculture (Presentation) <http://bit.ly/2icjoZk>

³⁶ National Statistical Office. Zomba, Malawi. (2014) Malawi Labour Force Survey 2013: Key Findings Report. <http://bit.ly/2jmFOGu>

Most people are engaged in informal employment (80 percent), although women are more likely to be employed in this sector than men. In rural areas, the percentage of employed persons in informal employment is 91 percent compared to 69 percent in urban areas. Women constitute 30 percent of total wage employment in non-agriculture in Malawi. The percentage share of women in wage employment in non-agriculture in rural areas is higher than in the urban areas.

h. Access to resources

Women and men experience, perceive, and identify risks differently even though they may all be exposed to the same hazard or disasters. They may also experience different types of vulnerability based on their agency to prepare and take action (e.g. skills, knowledge, experience, confidence), relational constraints or supports (e.g. household decision-making power, influence) and structural challenges or opportunities (e.g. socio-cultural norms, policies, laws, customary practices, etc.). Importantly, because women and men may have differential access to, and control over resources (e.g. land, livestock, implements) and services (e.g. market, credit, information, relief), they have different capacity to prepare for, or recover from, disaster and to access and use climate information and early warning systems.

Under Malawi's laws, men and women have rights to equal ownership of property. However, customary law practices vary from the national law. Women's access to land is typically through the men (e.g. head of household). The 2002 National Land Policy highlighted the need to increase women's access to land, but the policy allows for the household head (typically a man) to be registered as the proprietor of family land. This can constrain women and young men's livelihoods, particularly in terms of their ability to access other inputs and services. On the other hand, 2010 report from the Government of Malawi found that there is only a very small gender gap in land ownership. Section 24 of the Constitution states women have equal rights to own and access **non-land** assets regardless of marital status, but customary law and discriminatory gender norms and practices limit their access. For example, women may own kitchen utensils while men may own land or cars.³⁷ There are no legal restrictions on women's access to financial services (e.g. credit). However, they face difficulties accessing these services due to a lack of collateral and high interest rates charged by microfinance institutions. Bank loans often require even higher collateral, which women have more limited access to, and thus women tend to turn to credit through micro-finance institutions.

i. Gender-based violence

Climate change exacerbates gender inequalities, often resulting in more negative impacts for women. Loss of livelihoods and displacement due to floods, droughts and other climate induced disasters adds stress that leads to increases in GBV. During and after disasters, women are at greater risk of gender-based violence (GBV) including rape, sexual exploitation, and assault. GBV undermines physical and mental health, and affects women's presence in leadership and decision-making, and impacts the economy through increased health expenditure and reduced productivity. GBV is common in Malawi even though there are laws in place to protect women, including the Prevention of Domestic Violence Act, 2006; the Deceased Estates (Wills, Inheritance, and Protection) Act 2011; the Gender Equity Bill, adopted in 2012; Gender Equality Act in 2013 and Marriage, Divorce and Family Relations Act in 2015.³⁸ Discrepancies between legal systems and customary laws and everyday practice aggravate the situation. GBV increases in times of crisis such as in times of stress such as those in climate-induced disasters and severe weather events that lead to insecurity and displacement. Malawi's Ministry of Gender, Children and Social Welfare undertook a nationally representative quantitative survey on

³⁷ OECD (2014). Social Institutions and Gender Index (SIGI) Malawi country profile.

<http://www.genderindex.org/sites/default/files/datasheets/MW.pdf>

³⁸ O'Neil T, Kanyongolo N, and Wales J (2016). Women and Power. Representation and influence in Malawi's Parliament. Overseas Development Institute. London.

Violence Against Children and found that more than one in five girls experience sexual abuse before the age of 18, with half of those under the age of 13. One third of all 13-17 year olds who had experienced sexual abuse reported that the abuser was a class or school mate and between 10-20 percent of all sexual abuse incidents reported occurred at school.³⁹

j. Legal and Administrative Framework Protecting Women and Protecting Gender Equality in Disaster Risk Management

Currently, there is no framework to protect gender equality in disaster risk management. However, Sections 20 and 41 of the Constitution of Malawi uphold the principle of equal rights for men and women and prohibit any discrimination based on gender or marital status. In 1987, Malawi ratified the Convention on the Elimination of All Forms of Discrimination against Women. Malawi signed the Optional Protocol in 2000, but has yet to proceed with ratification. It ratified the Protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa in 2005.⁴⁰

Malawi's National Disaster Risk Management (NDRM) Policy of 2015 acknowledges that "disaster risk management is a developmental issue aimed at reducing social, economic and environmental disaster losses in order to achieve socio-economic growth in the country." The NDRM Policy is linked to social, infrastructure, environmental, and natural resources policies including the Gender Policy. Malawi also has a number of laws intended to reduce gender inequality including the Prevention of Domestic Violence Act, 2006; Deceased Estates (Wills, Inheritance and Protection) Act, 2011; Gender Equality Act, 2013, and; the Marriage, Divorce, Family Relations Act. 2015. Customary laws still dictate unequal gender relations and reinforce the patriarchal social order that perpetuates discrimination that some women face in public and private institutions.⁴¹

5. Gender issues in accessing climate information and disaster early warning information and services

The following summarizes some of the key gender issues identified by the analysis in relation to access to climate information and early warning information and services:

1. Overall, due to different social, cultural, economic, and structural (e.g. political, institutional, legal); relational (e.g. decision-making dynamics, restrictions on mobility, gender-based violence, etc.) reasons, **men and women may have differential access** to climate information and early warning information and services;
2. Women may **access relevant information through different communication pathways** than men, and have distinct needs and differing access to resources to support them through recovery because of gender-based divisions of labour and time use, patterns of mobility, and socially-expected behaviour patterns and responsibilities. For example, men may access information through radios, cellphones, television, newspapers, extension workers while women may access information through cellphones, neighbours, health clinics, their children (from school). Women may have responsibilities that prevent them from accessing radio and television and which also limit their attendance at meetings where information on climate and disaster early warning is shared. Further, in some cases they may also face discriminatory norms that limit their mobility, preventing them from accessing radios, televisions, or meetings (if they are a distance from their homes);
3. Access to climate information and early warning information and services **may also differ**

³⁹ Government of Malawi (2014). Violence against children and young women in Malawi: Findings from a national survey 2013 (Executive summary) <http://bit.ly/2hM3q7e>

⁴⁰ SIGI, Malawi country profile: <http://www.genderindex.org/sites/default/files/datasheets/MW.pdf>

⁴¹ Kanyongolo, N. (2011) 'Economic Empowerment of Women: Law and Policy Review'. Lilongwe: MGCCD, Livingstonia Synod and DanChurchAid; O'Neil et al, 2016 <http://bit.ly/2ipgctf>

depending on age, socio-economic factors, geography (rural/urban), disability, faith, etc. For example, a young rural woman may access different information and in different ways than a young, urban woman;

4. Women and men **may also have different information needs** that need to be considered, e.g. gender-based divisions of labour, mobility, socially accepted expectations, age, access to resources, mobility, etc.;
5. **Disaster risk management design and implementation must include women's and men's voices equally** to build community and household resilience and lessen impacts. This must be done in a way that also considers other intersectionalities (e.g. age, ability, socio-economic group, etc.);
6. **Low literacy levels limit ability** to read and understand weather and climate information; literacy rates for women are lower than men in Malawi;
7. Compared to men, **women typically have lower income levels that limit their ability to own assets such as radios, televisions, and cellphones**; they may also lack decision-making power over the income they generate which may in turn limit their ability to purchase assets;
8. **Discriminatory norms and inequitable decision-making power in households may limit women's (or even young men's) control over assets like radios and cellphones, and their rights to use the assets may also be limited**; and,
9. Finally, findings from the Global Framework for Climate Services (GFCS) baseline study revealed that **climate information disseminated from the Department of Climate Change and Meteorological Services is usually too technical and general for useful decision making in agriculture, health and disaster reduction**. There is need to tailor area-specific messages on climate change that can help communities to build resilience towards climate change impacts including disasters. The study and stakeholders' consultation also confirmed that communities use indigenous knowledge to forecast climate and disasters. The indicators range from trees to birds, insects and clouds. Indigenous knowledge plays an important role in alerting communities especially where access to climate information is a challenge. For example, when a swarm of bees moves from the river to upland area it signifies heavy rains that may result in flooding. Hence, intervention to strengthen climate information and disaster early warning should also consider integrating indigenous knowledge.

6. Recommendations to mainstream gender into GCF Initiative

The Government of Malawi recognizes the important role that women play in agriculture. The project -- aimed at saving lives and protecting agriculture-based livelihoods by scaling up the use of modernized climate information and early warning systems in Malawi -- will be implemented more effectively and in a way that meets a broad range of needs and challenges by mainstreaming gender and addressing social inclusion⁴² throughout all areas of focus and action. The following recommendations and interventions should therefore be considered. The project should:

- Prior to implementation of the project, conduct a gender-responsive baseline study to establish the on-going projects in the targeted areas; identify context specific gender issues in relation to access to services, training, climate information, and disaster early warning services; and identify more precisely the gender-responsive and socially inclusive benefits;
- Based on stakeholder consultation to validate the gender action plan, develop an implementation strategy in the first year of implementation to ensure mainstreaming of gender into annual work plans, and achievement of gender-related targets as part of the overall objectives of the initiative
- Empower networks that generate climate data (e.g., DCCMS) and intermediaries such as line ministries (e.g. agriculture, DODMA, environment) to produce tailor- made gender-responsive and socially-inclusive climate services including disaster early warning services that will enable different end-users to make decisions on disasters and their agriculture and non-agriculture based

⁴² This will ensure women and men of different ages, abilities, geographies, socio-economic groups, etc. are considered

livelihoods. Currently there is no strong women's network that ensures gender equality in project implementation at a national and district level. This project should establish a vibrant and sustainable system that will ensure that gender is mainstreamed in climate information and disaster early warning information.

- Build the gender mainstreaming capacity of implementing partners of GCF project, district, EPA and community partners to ensure that gender issues are addressed throughout the project cycle and in all activities;
- Recognize the importance of, and build on, indigenous knowledge to strengthen climate and disaster early warning information to ensure that local predictions are taken into consideration;
- Have a gender focal person who will provide technical support on gender responsiveness and social inclusion across all activities throughout the project cycle and ensure that women and men have equal opportunities and enjoy equitable benefit sharing from the project;
- Ensure that NASFAM's gender expert sits on the PSC to maintain a focus on the implementation of the Gender Action Plan;
- Consider using different channels of communicating climate and disaster early warning information including local channels;
- Ensure climate information is available and disseminated at the local level in ways that are easily accessible to women and men across different ages, abilities, geographies, socio-economic groups, etc. This may require revamping and equipping climate information centres and communication channels in the targeted areas;
- Include in the dissemination channels for gender-sensitive, socially inclusive CI/EWS, local structures such as: civil protection committees, faith based organisations, VSL groups. and farmers organisation to ease access for both women and men.
- Include interventions to empower women economically such as Village Savings and Loans (VSLs) and also Adult Literacy Training to increase their chances of being in decision making positions.

7. Proposed Action Plan

This Gender Action plan provides entry points for gender-responsive (and socially inclusive) actions to be taken under each of the Activity areas of the project. In addition, specific indicators are also proposed to measure and track progress on these actions at the activity level. This can be incorporated into the detailed M&E plan which will be developed at the start of implementation, and provides concrete recommendations on how to ensure gender (including disaggregated data) continues to be collected and measured throughout implementation. As a general principle, it is recommended that the project take into consideration gender and social inclusion implications including:

- The climate information and early warning system needs of women and men across different ages, abilities, socio-economic groups, geographies, etc. as relevant;
- Women's access to, and control over, environmental resources and the goods and services that they provide;
- The need for women, men (including youth, people living with a disability, etc.) to have a voice in designing and implementing climate information and early warning systems;
- Identification of gaps in equality through the use of sex and age disaggregated data enabling development of action plans to close those gaps, devoting resources and expertise for implementing such strategies, monitoring the results of implementation, and holding individuals and institutions accountable for outcomes that promote gender equality;
- The need for different stakeholders involved in the project to develop awareness raising / outreach/training aimed at drawing attention to the need for gender responsive and socially inclusive climate information and early warning system information and services;
- The need for strategies to include or target women as well as men for training related to CI/EWS/DDR (including STEM, O&M, data modelling, forecasting/met studies, etc.);
- The place of gender-responsive and socially inclusive community discussions and dialogue in relation to climate information, early warning systems, disaster risk management, and disaster resilience.
- In addition to the recommendations listed above, it will be important to ensure that the gender and social inclusion aspects of the project are tailored specifically for a Malawian context. This should include:
 - Understanding the complexities of households (relations and decision-making dynamics) and the organization and working of Malawian communities;
 - Assessing how gender is currently being addressed by differing ministries and organizations, to most effectively develop needs assessments, enable planning, undertake research, and be effective in monitoring and evaluation;
 - Linking climate information services and early warning systems to literacy efforts in project areas, and;
 - Building on the projects, structures, and initiatives being rolled out by the Government of Malawi and other development partners, in order to maximize the use of resources, and for greatest efficiency and effectiveness.