

# Floods and Droughts through a Gendered Lens; mitigating strategies for women, girls, boys and men in Malawi



*Grace Petros of Mlemba village, T/A Nyachikadza, Nsanje on her way to the trading center. Photo credit: Chipiliro Khonje*

This research was made possible by a grant from the USAID Technical and Operational Performance Support (TOPS) program. The TOPS Micro Grants Program is made possible by the generous support and contribution of the American people through the United States Agency for International Development (USAID). The contents of the materials produced through the TOPS Micro Grants Program do not necessarily reflect the views of TOPS, USAID or the United States Government.

This paper was researched and written by Dr Alinane Kamlongera, Avril Elliott, Marriam Lally and Maggie Phiri.

GOAL Malawi takes this opportunity to express a deep sense of gratitude to all community members-women, girls, boys and men within the districts of Nsanje, Neno and Blantyre rural, for contributing their time and sharing their experiences and perspectives on droughts and floods.

GOAL would like to extend special thanks to Moira Simpson, all government partners at community, district and national level, INGO's and donors operational in Malawi for their time, feedback and input to the study and more especially the development of recommendations.

GOAL Malawi acknowledges the valuable contribution and information, provided by Andrew Joabe, Kennedy Ngwira, Gillian McKay, Hanna Kachule, Joseph Sambaya, Mary Van Lieshout, Fred Beale, Ruth Butterworth and many others across the organization, who helped with completion of various tasks throughout the research study. A special thank you is also extended to the research assistants who were involved in the data collection process.

For further information on any of the issues raised in this paper please e-mail GOAL Malawi at: [info@goal.ie](mailto:info@goal.ie)

This publication is copyright but the text may be used free of charge for the purposes of advocacy, education, and research, provided that the source is acknowledged in full i.e. GOAL (2015) Floods and Droughts through a Gendered Lens; mitigating strategies for women, girls, boys and men in Malawi. Washington, DC: Technical and Operational Performance Support (TOPS) Program

This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID).



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)

## Executive summary

The experiences of women, girls, boys and men, of disasters and associated mitigating measures can be different as a result of multiple factors. These factors can range from limitations in access to information, to the level of health and support services offered to people in normal times and in times of disaster. Pre-existing factors such as differing literacy levels, economic and decision making power and differing gender roles also lead to differing gendered experiences of disasters and mitigating measures. This 2015 study by GOAL Malawi, funded by USAID, presents findings and recommendations for improved experiences of women, girls, boys and men in rural Blantyre, Neno and Nsanje districts based on contributing themes to resilience and food security, which leverage and add to existing literature on gender.

The research study adopts a mixed methods approach including key informant interviews and focus group discussions, with representatives from disaster risk management structures and within target communities. A literature review on the topic of gender, food security and climate change was also undertaken. The study also collected quantitative data, to showcase the magnitude of issues raised within the focus group discussions in the areas directly affected by disasters.

The methodology, captured information relating but not limited to: the number of people within Internally Displaced Persons (IDP) camps as a result of an existing emergency<sup>1</sup> at the time of data collection, response to floods, peoples' capacity and coping strategies, the needs of women, girls, boys and men during crisis, early recovery and post-crisis phases, existing cultural norms, gender roles and the possible shifts that have occurred due to the disasters, the role of indigenous knowledge, access to resources and the consultation process in the design of displacement camps.

The WEAI (Women's Empowerment in Agriculture Index), a tool for measuring the empowerment and inclusion of women, most notably in the agriculture sector was adopted to analyse the level of the effect of the disaster, on the productivity of women.

The research revealed that women, girl, boys and men are affected differently by droughts and floods and therefore have different experiences. In some instances, however, experiences were universal to all gender groups. The findings suggest that disaster mitigation strategies which take into account how women, girls, boys and men experience disasters; particularly their needs in times of such crisis are more effective in addressing needs and leveraging strengths.

The recommendations produced, focus both on relevance to all genders and gender specific issues. The recommendations were developed based on key findings determined from a combination of thorough consultation processes with community members and stakeholders at community, district and national level. The draft recommendations were also shared with

<sup>1</sup> In January 2015, in response to heavy rainstorms and floods experienced, the President of Malawi declared a national state of emergency in 15 out of the 28 districts in Malawi.



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)

GOAL staff and partners, including NGO's and donors, for review/feedback and additional input. GOAL's internal technical support functions were also key in the finalisation of the recommendations. Technical feedback from TOPS and feedback generated from the CORE Global Health Practitioners conference, where GOAL's Global Behaviour Change Advisor, Gillian McKay presented on the key findings to date, were also incorporated.



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)

## **Table of Contents**

Acknowledgements .....	2
Executive summary.....	3
Contents .....	5
List of abbreviations .....	7
Introduction.....	8
Climate change and food security.....	9
Malawi and climate change .....	10
Gender, DRR and Resilience .....	12
Methodology.....	14
Research questions.....	14
Data collection .....	15
Limitations of the study .....	19
Findings on experiences of floods and droughts.....	19
a) Demographics .....	19
b) Findings from the key informants .....	20
The gendered roles of key informants within disaster situations.....	20
Recommendations from key informants .....	20
c) Experiences of women, girls, boys and men with droughts and floods.....	21
Findings on disaster reduction .....	21
i) Communication of an impending disaster-droughts and floods.....	21
Women.....	21
Girls.....	22
Boys .....	22
Men .....	22
ii) Universal findings: on how women, girls, boys and men prepare for the disasters .....	22
iii) Gendered findings on how the groups prepare.....	23
Women.....	24
Girls.....	24
Boys .....	24
Men .....	24
Findings on disaster response .....	25



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)

i) Universal experiences of women, girls, boys and men prepare for the disasters .....	25
ii) Gendered disaster response experiences .....	25
Women.....	26
Girls.....	26
Boys .....	27
Men .....	28
Disaster recovery .....	28
Suggestions from the communities on how they can recover from disasters .....	30
d) Women’s output in the context of disasters.....	30
Recommendations.....	32
Conclusion .....	39
References.....	40
<b>List of tables</b>	
Table 1: Detailed information on collected data .....	17
Table 2: Demographics of the study .....	19



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)

## List of Abbreviations

ACPC-Area Civil Protection Committee

ADDRMO-Assistant District Disaster Risk Management Officer

DADO-District Agriculture Development Office/Officer

DCDO-District Community Development Officer

DCPC-District Civil Protection Committee

DEA -Department of Environmental Affairs

DISCOVER-Developing Innovative Solutions with Communities to Overcome Vulnerability through Enhanced Resilience

DoDMA-Department of Disaster Management Affairs

DPRA-Disaster Preparedness and Relief Act

DRM-Disaster Risk Management

DRR Disaster Risk Reduction

FGD-Focus Group Discussion

GoM -Government of Malawi

GVH-Group Village Headman

IDP-Internally Displaced Person

INGO-International Non-Governmental Organization

IPCC-Intergovernmental Panel on Climate Change

MGDS -Malawi Growth Development Strategy

MVAC-Malawi Vulnerability Assessment Committee

NAPA- National Adaptation Programme of Action through Enhanced Resilience

NFI-Non-Food Item

NGO-Non-Governmental Organization

TA-Traditional Authority

TOPS-Technical Operational Performance Support

UNDP-United Nations Development Program

UNFCCC-United Nations Framework Convention on Climate Change

UNRCO-United Nations Resident Coordinator Office

USAID-United States Agency for International Development

VCPC-Village Civil Protection Committee

WEAI-Women's Empowerment in Agriculture Index



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)

## INTRODUCTION

Malawi's 2013-2014 National Contingency Plan highlights a noticeable increase in disasters that can be linked to climate change. These disasters have included floods, dry spells and disease outbreaks. The IPCC (Intergovernmental Panel on Climate Change), 2007 report, notes that climate change will continue to negatively impact on development in Africa and that the poorest communities will be disproportionately affected. Tandon (2007), Challinor, Wheeler, Garforth, Craufur & Kassam (2007), Adger, Huq, Brown, Conway & Hulme (2003) attributes high levels of vulnerability to the limited adaptive capacities of these communities, as well as their dependence on natural resources for water and food; the availability of which, is depleting in the context of climate change.

Hajdu, Ansell, Robson, van Blerk & Chipeta (2009) note that, food insecurity in Malawi is a recurring issue. Hundreds of thousands of households face food shortages on an annual basis. There are multiple causes of food insecurity in Malawi and worldwide. Climate change is acknowledged by leaders in global discourse on food security, as a primary contributor. Climate change affects food security through its impacts on all four dimensions of food security: food availability, food accessibility, food utilization and food system stability. Households and food systems which are already vulnerable face higher and more immediate risk of food insecurity (FAO, 2008).

Malawi's National Adaptation Programme of Action (NAPA) identifies droughts and floods as the most serious and significant recurring climatic events in Malawi. Agricultural droughts and floods ultimately pose the most serious threat to food security, which adversely affect poor communities living in rural Malawi.

As noted, in the Government of Malawi (GoM) 2013-2014 National Contingency Plan, primary responsibility for preparedness, response and rehabilitation, rests with the government. GoM has introduced disaster risk management structures at multiple administrative levels including district, Traditional Authority<sup>2</sup> (TA) and Group Village Headman<sup>3</sup> (GVH) level<sup>4</sup>. However, some gaps exist with regard to governance; functionality

---

<sup>2</sup> This is a local leader who heads several group village heads within a territory

<sup>3</sup> A local leader with several group villages under his jurisdiction

<sup>4</sup> These are: The District Civil Protection committee (DCPC), The Area Civil Protection Committee (ACPC) and The Village Civil Protection Committee (VCPC).



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)



and awareness of their roles including responsibilities with regard to equal participation of women, men and vulnerable groups (DISCOVER<sup>5</sup> Proposal, 2012).

UN Women Watch (2009) states that women are more vulnerable to the effects of climate change than men, primarily because, they constitute the majority of the world's poor and are more dependent for their livelihood on natural resources, that are threatened by climate change.

Furthermore, women face social, economic and political barriers that limit their coping capacity. Such levels of vulnerability and inequality are prevalent in Malawi, where the majority of women are poorer than men and existing political, social and economic inequalities, make it harder for women to cope with changes to the physical environment. Malawi as a country, lacks disaster mitigation measures that specifically address the gendered needs and strengths of women, girls, boys and men (GOAL Malawi, 2013).

In an effort to address the need for incorporation of gender considerations in disaster response and mitigation strategies, GOAL in partnership with USAID and TOPS undertook a research study to determine the differing gendered experiences of women, girls, boys and men of disasters and associated mitigating measures. The findings from the study have been analysed and reviewed by stakeholders at district and national level in an effort to formulate recommendations for improved policy and programming.

## CLIMATE CHANGE AND FOOD SECURITY

Climate change is one of the most topical issues in the context of continuous environmental degradation worldwide. It has been asserted by scientists that global levels of greenhouse gas emissions require a significant reduction, to minimise the disastrous effects of climate change (National Centre for Atmospheric Research, 2010). Due to these threats, the international community has through numerous agreements and treaties tried to address the negative effects of climate change.

A major report released on Sept. 27, 2013, by the Intergovernmental Panel on Climate Change (IPCC) confirms that there is a strong correlation between human activities and global warming. Approximately 197 scientific organisations have also endorsed this theory (Bradford, 2014).

The effects of climate change are noticeable in many countries, worldwide and increasing in scale and reach. Josef Werne, an associate professor in the Department of Geology and Planetary science at the University of Pittsburgh claims,

---

<sup>5</sup>The DISCOVER Developing Innovative Solutions with Communities to Overcome Vulnerability through Enhanced Resilience programme is a multiannual DFID funded climate change adaptation and resilience programme lead by Concern Universal in partnership with GOAL, Self- Help Africa, COOPI, CUMO, Clioma, CEPA and Solaraid.



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)

*We can observe this happening in real time in many places. Ice is melting in both polar ice caps and mountain glaciers. Lakes around the world, including Lake Superior, are warming rapidly – in some cases faster than the surrounding environment. Animals are changing migration patterns and plants are changing the dates of activity (e.g., leaf-flush in spring to fall in autumn is longer) (Bradford, 2014).*

In Africa, the effects of climate change is evident in the context of rising temperatures. A number of African countries are experiencing water stress related problems due to insufficient and unreliable rainfall. This is disrupting seasonal patterns and resulting in dry spells, droughts and floods. Severe and prolonged droughts, flooding, and loss of arable land due to desertification and soil erosion, is threatening the livelihoods of about three-quarters of Africa's population who are heavily reliant on agriculture (Tadesse, 2010, p.3).

FAO (2008) notes that burning fossil fuels and deforestation contribute to climate change which directly impacts on the four dimensions of food security: food availability, food accessibility, food utilization and food system stability.

## **MALAWI AND CLIMATE CHANGE**

Makoko, (2008) recognizes Malawi as one of the countries most affected by the negative effects of climate change. Malawi falls under the world's twelve most vulnerable countries that are susceptible to climate change related disasters (World Bank 2010). According to a working paper by Chinsinga, Chasukwa & Naess, 2012; Malawi is also defined as one of the world's most water stressed and least climate resilient countries worldwide. Malawi faces considerable challenges of declining agricultural production, as well as rapid population growth.

Malawi's economy is heavily dependent on the agricultural sector. In 2009, 78 percent of active rural inhabitants above the age of 15 were classified as subsistence farmers. The agricultural sector generates about 90 per cent of the foreign exchange in Malawi which is vital for the success of other sectors of the economy. Small holder farmers who are engaged in mixed subsistence and cash crop agriculture, attribute to about 70 percent to the agricultural GDP (Kondo, Makanza, Tobias and Chitambira, 2012: 23). Therefore, the agricultural sector is central to Malawi's livelihood and if threatened, the food security of the country would be in dire straits.

Droughts and floods have been a recurring event in many parts of Malawi which are mostly dependent on rain-fed agriculture. It is therefore important to understand the effects of these changes of rural Malawian society. Droughts and floods also affect urban households, these households are also vulnerable to food shortages and rising prices (Pauw & Thurlow, 2009). Though, the focus of this study is only on rural societies.

According to the GoM National Contingency plan there is a noticeable increase in disasters that can be linked to climate change. In Malawi, these disasters have included floods, dry spells and disease outbreaks. In January 2015, heavy rainstorms and floods were experienced in 15 out of 28 districts in Malawi, namely; Chikwawa, Nsanje, Phalombe, Zomba, Rumphu, Karonga, Thyolo, Machinga, Mangochi, Ntcheu, Chiradzulu, Mulanje, Balaka, Salima and Blantyre (GOM, UNRCO Situation Report No.



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)

7, and 6 February 2015). The Government of Malawi (GoM) estimates that at least 638,000 have been affected of which 230,000 are displaced, 104 confirmed dead, 645 injured and 172 missing. The three worst affected districts are Nsanje, Chikwawa and Phalombe. (GOM, UNRCO Situation Report No. 7 6 February 2015). Nsanje reports the highest number of displaced and persons missing and those feared dead i.e. 13,592 households (UNDAC, 2 February 2015) and 153 respectively.

The Government of Malawi seeks to mitigate against the impact of climate related disasters through national policies such as the National Environmental Policy (2004), the Forest Policy (1996) the National Water Policy (2005), the National Energy Policy (2003) and the Draft Agriculture Policy (2010), supported by legal frameworks including the EMA (1996), The Forestry Act (1997), Water Act, Energy Act and the Disaster Preparedness and Relief Act (DPRA) (1991), as well as the newly approved Disaster Risk Management Policy (2015).

In addition the NAPA was formulated in 2006 and officially launched in 2008, with the aim of addressing immediate and urgent adaptation needs. The national caucus was launched with the aim of assisting communities vulnerable to climate change to increase resilience of ecosystems to the adverse effects of climate change. It identifies thirty-three priority interventions for adaptation across eight different sectors, including agriculture. Out of the thirty-three priority areas, fifteen are considered urgent in order to reduce the vulnerability of rural communities, to adapt to the adverse impacts of extreme weather events caused by climate change (GoM, 2006). The Malawi Vulnerability Assessment Committee (MVAC) is another body that oversees climate change response, mitigation and adaptation strategies, with particular emphasis on food security.

Despite these gains, the Malawian Government sector policy, comprehensive gap analysis (2011), in response to climate change, suggests that there are many fragmented policies, laws and programs that are too broad. These policies or laws offer very limited scope to address the complexities of climate change and to realise key goals. A large number of these documents on climate change do not necessarily focus on climate change, mitigation and adaptation measures, although they indirectly support the desired goals of combating the effects of climate change. Also, the legal frameworks do not provide enforcement mechanisms for reduction of greenhouse emissions. Similarly, measures for adaptation to climate change have been minimally addressed, despite the clear need for a comprehensive strategy.

Malawian farmers and rural community members have demonstrated innovative practices and actions in response to climate change. For example, the energy efficient stove (Chitetezo Mbaula) decreases the quantity of firewood required for cooking. This is evident in the reduction of time spent gathering firewood by 43 to 50 percent. Therefore the Chitetezo Mbaula contributes to the protection of natural wood sources in that it limits the usage of firewood for cooking fuel, which in turn reduces forest degradation (Malinski, 2008). Other examples include; community owned woodlots and the usage of briquettes made from saw dust or grass (Faxälv & Nyström, no date). Support is required to monitor/harness/develop identified positive and effective coping mechanisms and to encourage a genuine transformation (Population Action International, 2012).



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)

Given the strong links between climate change, environmental resource management and population dynamics, an integrated response focusing on reproductive health and gender, would contribute to specific gendered needs of women, girls, boys and men with regard to climate change adaptation (UNDP, 2013).

Malawi does not have a specific policy on climate change. In March of this year, the government published the Disaster Risk Management and Communication Strategy, guiding the process of disaster management. Within The DRM strategy, the national Gender policy is referred to, however the policy, does not identify specific linkages to gender needs in the context of disasters.

## **GENDER, DISASTER RISK REDUCTION (DRR) and RESILIENCE**

Climate change is increasingly recognized as a global crisis, but the focus of interventions is often scientific or economically based. Such a focus can potentially overlook specific human elements such as gender dynamics and needs. It has been, suggested by some of the leading proponents of development, that it is imperative to shift climate change strategies from a scientific and economic approach, to more of a people-centred approach (Skinner and Brody, 2011). Gender considerations are integral to such an approach.

Resilience to climate change related disasters is determined by communities' absorptive, adaptive and transformative capacities in the context of hazards such as floods and droughts. The effects of climate change related disasters affect members of communities differently, due to different levels of capacity and access to resources. Such disparities can also manifest within the same household. Societal inequalities such as the distribution of resources and power, lack of awareness of rights and duty bearer capacity and/or commitment to uphold such rights as well as repressive cultural rules and norms, contribute to differing experiences of disasters (Care International, 2010, p.1).

The Sendai Framework for Disaster Risk Reduction, adopted at the Third World Conference on Disaster Risk Reduction, held from 14 to 18 March 2015 in Sendai, Miyagi, Japan promotes thirteen Guiding Principles including the following: Disaster Risk Reduction requires an all-of-society engagement and partnership. It also requires empowerment and inclusive, accessible and non-discriminatory participation, paying special attention to people disproportionately affected by disasters, especially the poorest. It also necessitates 'a gender, age, disability and cultural perspective in all policies and practices; and the promotion of women and youth leadership; in this context, special attention should be paid to the improvement of organized voluntary work of citizens'. The Hyogo Framework for Action which precedes and lays the foundation for the Sendai Framework states that 'A gender perspective should be integrated into all disaster risk management policies, plans and decision-making processes, including those related to risk assessment, early warning, information management, and education and training.

In many developing countries, cultural norms and customs prevent many women and girls to seek paid employment. Women and girls therefore depend on climate-sensitive sectors, such as subsistence agriculture and water collection to meet food security needs (Fisher, 2014, p.10). Women's roles are often inextricably



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)

linked to the home and include childcare, care for the sick and older people, the production house-oriented crops and livestock products and the preparation and storage of food. In contrast to women, men have more opportunity to migrate anywhere and seek paid employment opportunities, to produce crops and livestock products for sale and are responsible for selling valuable produce and livestock (Care International, 2010, p.2).

In the context of a disaster, gender norms prevail and women continue to bear the burden of homemaking and provision of water and food for their family. Women are often forced to walk long distances to fetch water and to look for food, while maintaining responsibility for care of children, the sick and older people. In addition, women experience inequality with regard to ownership of land, property and inheritance (Skinner and Brody, 2011, Ngwira, 2003).

Men are also vulnerable to climate change related disasters, particularly men who are poor (Goh, 2012, p.10). In disaster situations, some poor men experience anxiety and stress, related to lack of ability to fulfil their role as providers for their families. It has also been noted by researchers that the death toll of men during disasters is usually higher than women and children, because men are likely to take risks to support their families (Skinner and Brody, 2011).

Policies to promote a reduction in greenhouse gas emissions falls short of including a gendered perspective. Currently, market-based mechanisms are promoted by developed countries, whereby carbon emissions can be offset by subsidizing developing countries in reforestation campaigns. Forests are carbon sinks which absorb carbon and hence reduce the volume of carbon being emitted into the atmosphere. Through REDD (Reduced Emissions from Deforestation and Forest Degradation), industrialised countries can at times disregard the multiple social, cultural and implications of the approach which can contribute to exclusion of landless inhabitants, which disproportionately affects women, from development initiatives. Access to income generated by access to such resources, are therefore restricted (Skinner and Brody, 2011).

Acknowledgment and understanding of such differing gender roles and experiences are integral to the development of disaster preparedness, response and recovery solutions. Climate change policies will not address the differing gender needs of women, girls, boys and men if they do not incorporate a gendered perspective in addressing climate change related disasters. UN Women Watch (2009) highlights the importance of targeting and designing mitigation and adaptation efforts to systematically and effectively address gender-specific impacts of climate change including but not restricted to issues of food security. The benefits of applying gender-sensitive participatory approaches for using information to avert loss of property and life during disasters, is recorded in FAO's 2008 report on climate change and food security.

Disparities between girls, boys, men and women's experiences exist, and should be considered in the design of interventions and policies that seek to mitigate against the impact of disasters and build resilience. The Sendai Framework, 2015 notes that 'Empowering women and persons with disabilities to publicly lead and promote gender equitable and universally accessible response, recovery



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)

rehabilitation and reconstruction approaches are key.’ Women are defined as key stakeholders in the effective management of disaster risk and designing, resourcing and implementing gender-sensitive disaster risk reduction policies, plans and programmes. The framework requests capacity building initiatives to be prioritised in order to facilitate the self-empowerment of women to engage in such leadership and participatory roles, as well as increase access to alternative livelihood means in post-disaster situations.

## METHODOLOGY

The research study was designed to facilitate input from women, girls, boys and men who were directly impacted by disasters and associated mitigating measures, to generate recommendations on how to improve resilience and disaster risk reduction and response programming. It was tailored to understand the differing experiences, needs and strengths of w/g/b/m in the context of floods and droughts. GOAL Malawi seeks to highlight the current experience of w/g/b/m in relation to food security during this time, particularly, the impact of depleted crop production, damage to supply chain infrastructure and hikes in food prices. The research also aimed to analyze existing mitigation and response measures, as well as to identify and document the promising practices and lessons learned.

The methodology adopted for the study captured information relating, but not limited to: the number of people within camps as a result of the current emergency response following recent and unprecedented flooding, disaster preparatory measures, peoples capacity and coping strategies, the needs of women, men, boys and girls during crisis, early recovery (following a humanitarian response to a disaster when circumstances facilitate cessation of emergency response initiatives) and preparatory phases (in advance of a disaster).

## RESEARCH QUESTIONS

As noted above, women, girls, boys and men experience of disasters are influenced by various factors such as access to information, health and support services made available to them during the response phase. FAO (2008) proposes that gender and age differences also affect the degree of risk faced by individuals within a vulnerable group. Pre-existing factors like the differing literacy levels, access to information, and differentiated responsibilities may also play a role in how women, girls, boys and men experience the impact of a natural disaster.

In line with the differing needs and strengths of women, girls, boys and men, the study posed the following research questions to identify what the strengths and needs were:

1. How are women, girls, boys and men affected by floods and droughts in Nsanje, Neno and Blantyre rural?
2. How do existing standard mitigation and response measures address the needs of women, girls, boys and men?



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)

## DATA COLLECTION

### Qualitative Data

Data collection was completed within a period of two weeks from the 23<sup>rd</sup> of February to 8<sup>th</sup> of March, 2015. Data was collected through focus group discussions, key informant interviews and evacuation camps case studies. Data was collected within three districts Nsanje, Neno and Blantyre rural. At the onset of the data collection process i.e. January 2015, Nsanje District was affected by disastrous floods. Nsanje was among the three districts in Southern Malawi hit by unprecedented flooding as a result of erratic and persistent rainfall. The research study process was adapted to capture recent reflections and ongoing experiences of women, girls, boys and men of the current emergency response including Internally Displaced Persons (IDP) camps. The study interviewed women, girls, boys and men within IDP camps in Nsanje.

### *Literature review*

A review of international research on gender and climate change was carried out to inform the basis of the research study. There was also a review of documentation from the Department of Disaster Management Affairs (DoDMA) to analyse trends in disasters, response and mitigating measures that impact on w/g/b/m. The M&E framework and data collection tools were informed by priorities uncovered during the literature review process.

### *Focus group discussions*

Within each of the three districts, focus group discussions were conducted with women, men, boys and girls in 2 traditional authorities within 5 group village heads, to determine experiences of floods and droughts and the mitigating and response measures. The focus groups were organised with women, girls, boys and men in separate groups.

Participants were identified in cooperation with communities, Group Village Headmen, community leaders and camp leaders who supported the invitation process to take part in focus group discussions. Focus groups were set up to accommodate a maximum number of 10 people per session. This was to facilitate sufficient time and space for meaningful input from all participants, whereby facilitators were trained in group dynamics, clarity in questioning, soliciting responses and group facilitation skills. Each of the FGD's was facilitated by two trained research assistants of the same sex.

All community members who presented for focus group discussions were accommodated as long as the focus groups did not exceed the maximum number. If the community members exceeded the maximum number of people per focus group they would among themselves select the people who would represent them. Tools for data collection were all translated from English to Chichewa for the data collection process.



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)

### *Semi-structured interviews*

The data collection process also included interviews with 5 key informants in each of the districts with representatives from Disaster Risk Management structures e.g. CPCs, district authorities, the Department of Agriculture and a representative of the Gender Based Violence technical working group, to determine their roles and challenges within disaster processes.

### *Case studies*

20 IDP camp case studies were recorded with women, men, boys and girls in Nsanje at 4 evacuation centres. 5 of each of the gender groups were both randomly selected and nominated by key individuals e.g. evacuation camp leaders and members of the Village Civil Protection Committee to take part in these case studies. A total number of 10 case studies were randomly selected and 10 were selected by key individuals.

### *Dissemination/ feedback meetings*

A series of feedback meetings were held at community, district and national level. 3 community/ district meetings were held in Neno, Nsanje and Blantyre rural. The 3 meetings hosted government stakeholders as well as community members representing women, girls, boys and men. Community leaders were also invited to take part in these meetings and one national level meeting was held in Lilongwe. This meeting hosted representatives from government stakeholders, donors and non-governmental organisations. These meetings ensured a consultative approach to the findings in determining the final conclusions, and recommendations that were produced.

### **Quantitative Data**

The study also collected quantitative data to showcase the magnitude of issues raised within the focus group discussions. Quantitative data was collected concurrently with the focus group discussions.

Please see below for a detailed plan on data collection:



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)



**Table 1: Research participants**

	<b>Nsanje</b>	<b>Neno</b>	<b>BT Rural</b>
<b>Focus group discussions<sup>6</sup></b>	T/A Ndamera: Floods and Droughts  Chitomeni, Thaundi, Mchacha, Mtema and Jimu  Women: 40 Men: 65 Boys: 50 Girls: 50	T/A Symon: Floods and Droughts  Symon, Kasamba, Somisomi, Mtengula and Gwenyama  Women: 50 Men: 50 Boys: 56 Girls: 46	T/A Ntanja: Droughts/Dry spells  Kuntanja, Kesinala, Siyamdimba, Nseule and Malizani  Women: 50 Men: 46 Boys: 38 Girls: 35
	T/A Mbenje: Floods and Droughts  Mbenje, Anne Petro, Kadyamba, Sojini and Bande  Women: 56 Men: 27 Boys: 35 Girls: 39	T/A Mlauli: Floods and Droughts  Felemu, Msalawatha, Golden, Chimpanzi and Magaleta  Women: 55 Men: 55 Boys: 49 Girls: 43	T/A Lundu: Floods  Lundu, Kamwire, Lunguzi William and Malume  Women: 53 Men: 45 Boys: 50 Girls: 45
<b>Key Informant interviews</b>	ADDRMO (Assistant District Disaster Risk Management Officer)/ Representative	ADDRMO (Assistant District Disaster Risk Management Officer)/ Representative	ADDRMO (Assistant District Disaster Risk Management Officer)/ Representative
	DADO (District Agriculture Development Officer)/ Representative	DADO (District Agriculture Development Officer)/ Representative	DADO (District Agriculture Development Officer)/ Representative
	DCDO/Social	DCDO/Social	DCDO/Social

<sup>6</sup> Focus group discussions were conducted between 23<sup>rd</sup> February and 8<sup>th</sup> March, 2015



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)

	Welfare (District Community Development Officer)/ Representative	Welfare (District Community Development Officer)/ Representative	Welfare (District Community Development Officer)/ Representative
	Representative from the Gender Based Violence Technical Working Group	Representative from the Gender Based Violence Technical Working Group	Representative from the Gender Based Violence Technical Working Group
	A community representative from the Village Civil Protection Committee (VCPC)	A community representative from the Village Civil Protection Committee (VCPC)	A community representative from the Village Civil Protection Committee (VCPC)
<b>Evacuation camps case studies</b>	Marka, Bitilinyu, Nyachilenda, Magoti.  5 women, 5 girls, 5 boys and 5 men		

### ***WEAI (Women's Empowerment in Agriculture Index)***

Following the data collection process, WEAI (Women's Empowerment in Agriculture Index), a tool for measuring the empowerment, and inclusion of women, normally in the agriculture sector, was used to analyse the degree to which the disaster impacted on the outcome productivity of women. The five key domains for measuring women's empowerment in agriculture were applied to women's empowerment during disasters. The domains are; decisions about agricultural production, access to and decision making power over productive resources, control over use of income and leadership in the community and time use.



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)

## LIMITATIONS OF THE STUDY

During the dissemination and input sessions at district and national level, it was noted by participants that the findings were for the most part expected and in line with experiences and existing knowledge of multiple geographical regions and disasters. It was therefore agreed that the findings could apply beyond the geographical focus of the study. Notable limitations include, applicability of the findings to disaster prone areas in Malawi specifically and focus on droughts and floods only. The recommendations provided are not exhaustive. GOAL also acknowledges the complex, multi-faceted and resourced policies and programming required to adopt a number of the recommendations outlined below.

As the research study's timeframe coincided with the onset of a disaster, availability of stakeholders was restricted in the context of pressing personal, community and/or professional priorities. Although the study was adapted slightly to leverage the real-time experiences of communities affected by disasters, participation of key stakeholders involved in the emergency response was affected e.g. the Department of Disaster Management Affairs. The study did not investigate fully the barriers to participation by community members who chose to avoid participation in the study, this may have resulted in the omission of a significant target group.

During the research study process, the Government of Malawi published the Disaster Risk Management and Communication Strategy. As the strategy was published in advance of the production of the findings and recommendations from this study, GOAL will share the research study report with the relevant and appropriate authorities e.g. DoDMA with a view to informing the development of an implementation plan to follow on from the strategy document.

## FINDINGS ON EXPERIENCES OF DROUGHTS AND FLOODS

### a. Demographics

**Table 2: Demographics of the study**

Gender Group	Total Number of participants	Maximum age	Minimum age	Average age
Men	277	92	18	50
Women	304	80	18	39
Girls	289	26	10	14
Boys	295	28	9	17



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)

## b. Findings from the key informants

The following are findings from interviews conducted with key informants from the districts of Neno, Nsanje and Blantyre rural. As noted in Table 1<sup>7</sup> above, key informant interviews were conducted with government representatives. The findings provide a summary of the specific gendered roles that are performed by the informants, the gendered challenges they face and finally their suggested recommendations for disaster situations.

*The gendered roles of key informants within disaster situations as identified by key informants i.e. government staff representatives.*

The key informants identified their gendered roles to be:

- Working with different departments within the government on health related issues specifically focussed on women e.g. health surveillance assistants on issues related to mothers' e.g. general clinic visits/under five clinics and the need for sanitary materials for women.
- Encouraging men to escort their wives to under five clinics.
- Organising campaigns that specifically encourage women to be independent by starting up businesses, engaging in temporary jobs and farming.
- Monitoring camps for cases of gender-based violence.
- Advise young people on topics relating to sexual health.
- To rescue people with disabilities, illnesses and impaired vision in the instance of disasters.
- Reminding men of their responsibility of finding a house to rent in the upper lands when floods are impending.
- Ensuring that girls and women's rights are not infringed upon when floods occur.
- Sourcing sports kits for boys at the evacuation centre to deter them from participating in negative coping strategies.

### *Recommendations from key informants*

The informants provided a general overview of the kind of assistance that should be made available to disaster affected communities including women, girls, boys and men from different stakeholders (Government, INGO and donors).

- Communities noted the requirement for flood protection in the form dams.
- Communities also acknowledged potential options for carefully considered relocation if required. Seasonal evacuation and temporary seasonal relocation was also suggested as an option if well informed by needs and strengths of all groups including vulnerable groups.
- Communities requested monetary loans to purchase rescue boats

<sup>7</sup> See table 1 for details of key informants



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)

- Providing protective gear for all civil protection committee members e.g. Wellington boots and raincoats was requested.
- Providing phones, whistles and local drums to assist the VCPC in their disaster awareness was highlighted as a priority.
- Distribution of seedlings to all community members affected by floods through NGOs in line with the agriculture season was requested.
- The importance of providing secure tents, adequate food, clothes, medical services and school items at all evacuation centres.
- Education in times of disaster is compromised particularly for girls and should be addressed as a key element of any response programme.
- Training all Civil Protection Committees on how to cater for the needs of different groups was noted as requiring broader scope and scale up.

### c. Experiences of women, girls, boys and men with droughts and floods

The findings were sourced from a representative group of women, girls, boys and men's detailing their experiences of droughts and floods. The findings have been arranged according to the three stages of a disaster; disaster preparation, response and recovery and grounded in the Hyogo Framework for Action which outlines 5 key objectives to facilitate disaster resilience with emphasise on:

#### Findings on Disaster Reduction –

##### i. Communication of an Impending Disaster- droughts and floods:

###### Women

Women hear of impending droughts and floods using the following means: by listening to the radio, by listening to village criers or at village meetings called by the chief. At particular times, they observe overflowing rivers that are also prone to flooding. Furthermore, women also hear about impending disasters from community members, district committees, chiefs' counsellors and agriculture extension workers. In addition to this, they sometimes also observe changing weather patterns e.g. the winds intensity which is understood as an indigenous early warning method of impending drought, as well as late and very heavy rains which usually damage crops. A woman from an FGD with women at Group Village Headman Kuntanja reiterates this by stating that:

*We know of an impending drought by observing the rainfall pattern. If there are heavy rains our crops are disturbed and the applied fertiliser is washed away.*

###### Girls

Girls receive information on an impending drought and/or flood from the following means: through radio broadcasts, through news bulletins on the television and also through conversations with their parents. However, girls from Mtegula and Somisomi were of the opinion that the information on the radio was not always right.



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)

*We access information that is wrong as it doesn't happen the way we hear it (Girls FGD, Mtengula).*

*We hear the information but still the information was inaccurate as proven by the floods this year. The radios did not predict the severity of the floods this year (Girls FGD, Somisomi).*

Girls just like women, also observe that poor crop development and irregular weather patterns signify an impending disaster.

## Boys

Boys hear of impending droughts and floods through the following means: the radio, the Ministry of Agriculture's awareness campaigns, Agriculture extension workers, NGO's awareness campaigns, from chiefs at community meetings, from Community Based Organisations and Community Based Children's care facilities. Boys also observe the change in the weather patterns, read bulletins from the *Fuko* newspaper, they stay informed through the climate change offices and analyse situations through local indigenous knowledge e.g. the leafing of the baobab tree, and how birds fly in flocks, to determine the probability of an impending disaster.

*We observe how birds fly in flocks at specific times. If there are impending floods birds fly in large flocks (Boys FGD, GVH Mlauli).*

*We monitor the signs of climate change as told by our great grandfathers, for example, we monitor the hippos' movement patterns from the water to the river banks, the migration of swarms of ants from their caves in the ground, as well as the prominent blossom of the Ntondo tree (Male VCPC Member, Mbenje).*

## Men

Men source information of an impending disaster from people with access to newspapers, from the campaigns that are run by NGO's, as well as information from extension workers. The men added that additional information is acquired from observing their harvests, at times listening to the radio and observe:

*"the constant falling of a particular specie of caterpillars (Nthowa)" (Men's FGD, GVH Felemu).*

### ii. Universal Findings: on how women, girls, boys and men prepare for the disasters

The following is a representative sample of how women, girls, boys and men prepare for disasters in the districts of Nsanje, Neno and Blantyre rural. Most of the preparatory measures are applicable to both droughts and floods. To mitigate against the impact of disasters, those at risk prepare for the potential onset of a disaster by increasing their resilience to climate related disasters through increased household capital. Women, girls, boys and men noted that they establish small businesses e.g. selling of firewood, fritters/ beignets, break quarry stones, collect sand and sell charcoal. The community members also engage in modern farming techniques such as crop diversification, irrigation, box ridge farming and conservation agriculture in preparation for potential dry spells or drought. Community members reported that they rent land in the wetlands to farm



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)

during the dry season. They plant drought resistant crops as well as crops that yield faster. Species of crops that communities observe are capable of conserving water e.g. Mbawa, Nkuyu and Mchowa are also prioritised for planting. Community members also engage in agro-forestry as a mitigating measure to limit the impact of floods. In addition to all this, individual families agree to store and ration food that can be consumed during the disaster.

During floods, individual community members take the responsibility of putting sand in sacks to build make-shift levees to soak up water. Other community members transfer their properties to upper lands or to move to relatives living within the upper lands. Many of the community members spoke of being rescued from the floods by a canoe which they either owned, rented or used one that belonged to their neighbour.

*“The canoe was not our own. It ferried us and our neighbours...The canoe belonged to a friend of our neighbours so, it was the neighbours who arranged for the canoe to come rescue us” (Girl from Magoti camp).*

In addition to the other preparatory measures, community members also spoke of keeping livestock to sell during periods of disasters, planting a type of grass that is known as Vetiva (*Shrysopogon-zizanioides*), to increase water retention in the soil. The community also go looking for wild fruits and a specific yam (*dioscoreas* species) called *Nyika* which is common in the Nsanje District. They preserve the yam by digging a pit in the ground, adding water to it and storing it in the ground. Not all community members reported engagement in preparedness measures. The reasons behind lack of preparedness were: disregard for the messages they received prior to the disasters or lack of access to information on the impending floods. There were also others who expressed that the timeline for disasters cannot be predicted and therefore one can be caught unaware without having made the necessary preparations. The men from GVH Malizani said that:

*“we cannot prepare since these disasters occur unexpectedly”.*

### **iii. Gendered findings on how the groups prepare**

In recognition of the gender dynamics existing within communities there were findings that were specific to the gender groups. The following preparatory measures are specific to women, girls, boys and men.

#### **Women**

In times of drought, women spoke of preserving vegetables by sun drying and boiling, to eat at a later date. The majority of women also spoke of managing the family’s food consumption by skipping meals and portioning the available food. Other women said they would join village savings and loan groups, to support their families with the loans they can access from such groups. Among the four gender groups, women specifically mentioned that they join savings and loan groups before impending droughts. Women also stated that they adopt family planning methods in order to avoid unplanned pregnancies:



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)

*“We take contraceptives to avoid unplanned pregnancies that lead to increased mouths to feed” (Women FGD, GVH Kesinala)*

They were also other women who specifically worked together with their husbands to prepare against the impending floods. They said that:

*“...with our husbands we work as a team we help our husbands to prepare for the floods in whatever way the man says we should.”*

*“We remind our husbands to prepare for floods in time and if the men do not comply we make the decision to move up land regardless” (Women FGD, Chitomeni).*

## Girls

During droughts girls stated that school is not priority. Girls note that it is necessary and more productive to drop out of school to help their parents secure food. Ultimately, girls claimed that they generally relied on their parents for direction on how to prepare for droughts and floods.

## Boys

In contrast, boys claimed that they help their parents by looking after livestock and small business entities started by their parents. However, there was a considerable number of boys who said that they did not prepare for floods at all. For some of the boys, the floods experienced in January 2015 was their first experience and thus would not have prepared without prior knowledge. This situation was specific to Blantyre rural.

## Men

Men reported that they rent land in the wet lands for their families to farm. They outlined their gendered responsibility to look for farm tools which are used in the preparation of fields. Women noted that it was men who have the most access to monetary and material resources. Men also buy supplementary food on top of their harvests and they encourage women to store and serve smaller portions for their meals. Men also build houses/ structures in the upland in preparation of impending floods. At times, men migrate to Jambawe in Mozambique to work in the mines and they leave their families behind for months at a time<sup>8</sup>

<sup>8</sup> This carries its own risks as evident by the recent cholera outbreak in Mozambique which originated in many cases in illegal mines such as Jambawe. A cholera outbreak has since occurred in neighbouring districts in Malawi most notably Nsanje and Chikwawa. This also causes risks of HIV transmission when husbands are away from their families and may seek out sex workers.



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)



## Findings on disaster response

### i. Universal experiences of women, girls, boys and men within disaster

The different gendered groups revealed that during disasters it was very common for them to seek opportunities for casual labour, to gain extra income to buy food. The group also expressed the fact that it is very hard for one to secure manual labour jobs due to competition for employment during times of disaster.

Women, girls, boys and men also spoke of lacking basic necessities due to the loss of property and a lack of employment opportunities.

The groups also revealed that there is a higher risk of disease e.g. diarrhoea and cholera due to the fact that food hygiene and sanitation and hygiene in general is compromised during times of disaster. Women, girls and boys have specific responsibilities related to water-related illnesses in that they usually bear the responsibility for water collection and storage. Support from men for prioritisation of protection of water sources and water treatment is a key influencing factor on the reduction of disease.

During disaster periods, the different groups spoke of the dangers they face during processes they engage in to source food. For instance in Nsanje, people navigate rivers in search of a particular aquatic yam called Nyika (*Dioscorea* species). While doing so, they put themselves at risk from attacks by snakes and crocodiles. Communities also complained of increased incidents of theft attributed to desperation on the part of those who are unable to fend for themselves during disasters.

During disaster periods, the different groups also noted an increase in school absenteeism/early school leaving and absence of teachers.

Women also spoke of how families are not as close in times of disasters:

*“The family cohesion becomes less and less because of the lack of food. Men usually desert their families and they go to women that have access to food or that have not been affected by the disasters.”*  
(Women FGD, Nseule).

### ii. Gendered Disaster Response Experiences

As mentioned earlier, some experiences during disasters are specific to each of the gender groups.

#### Women

Women stressed the fact that they are not able to eat a balanced diet, and are not able to access all nutritional needs required for pregnant and lactating women. In addition, women also spoke of food not being enough which could lead to them raising and giving birth to under or malnourished babies. Furthermore, women in specific areas like Neno, spoke of having problems with accessing antenatal services, as most of them are unable to walk



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)

the long distances to the clinic on an empty stomach. Impassable roads and destruction of bridges also impeded access to healthcare, markets and labour opportunities.

There were other women who felt that children's care is compromised during disaster times as they are required to leave younger children, often in the care of older children, while they attempt to source food.

Women also spoke of an increase in their workload, including increased walking distances to fetch water which is normally far away from their settlements. Available water is often from unprotected sources during times of disaster.

In all camps women usually went to toilets in groups because of poor lighting around the settlements. This is a particularly difficult scenario for pregnant women, as they frequented the toilet often which meant having to seek someone to go with more often. In their present situation the women expressed the fact that it was the older women who would escort them.

*"It's the older women who escort us, there is nothing you can do, and you just have to wake them up. At least they understand what we are going through because they themselves have gone through what we are gone through"* (Woman, Marka Camp).

When women were asked if they thought their experience would have been the same if they had been of a different gender. They said:

*"They are different. Women are at a great disadvantage especially those with more children because they have to look for food. Where women sacrifice their beddings to give them to children while men do not care"...there are more widows, most women are divorced/ separated, a lot of men run away from marriages and since men are polygamous"* (Woman, GVH Kadyamba).

Some men suggested that women engage in sex work in exchange for food or resources to buy food:

*"Most women have become promiscuous and have changed their way of dressing to attract men so that they can have something to eat at the end of the day"* (Men FGD, Siyamdima).

## Girls

Girls expressed their specific challenges in the context of disasters as including forced child marriage and teenage pregnancy. In some cases they said that they were forced by their parents to get married to reduce the stress on the family to provide food and other necessities during times of disaster. Other girls stated they choose to get married early so that they have a husband who can provide for them. A quotation from a girl from GVH Felemu reiterates this:

*"Men do entice us with money that can meet our daily needs, and you can never say "NO" when you see the money at hand whilst you have nothing, not even parental support."*

In Neno, the girls also claimed that there are few schools to attend and are usually located far



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)

away from their settlements. With such shortcomings, the girls claimed that they were forced to drop out of school.

In addition, girls also observed that they are disadvantaged in comparison to boys. In times of disasters such as floods, girls face significantly higher risk of engaging in transactional sex. Also in the context of disasters where families are split up particular in group habitation settings in camps, higher demand for transactional sex results in higher risks for women/girls of unplanned pregnancy and contracting STIs as well as HIV.

*“Yes we are different, when girls face hardships they opt for early marriages or engage in prostitution, when a boy impregnates a girl it is a girl who drops out of school and suffer the consequences, girls are also given more household chores than boys at the same time we are forced to do the household chores whilst the boys are sent to school” (Girls FGD, Anne Petro, Mbenje).*

Another challenge mentioned by girls was that on certain days, they are forced to bathe just once or not at all even when menstruating. Girls noted that this increased risk to contraction of illness related to poor personal hygiene.

## Boys

The main challenge that boys mentioned was an increase in their workload. The boys expressed that:

*“We worry that some responsibilities that were our fathers will fall on us at a young age, as boys we also get to do more work than everyone else because we are boys which affects our health. At other times there are circumstances where we are sent out of our parents houses to stay in our own house so that the number of mouths to feed is minimised” (Boys FGD, Sorgin).*

The boys said that the increased workload during the floods is their main obstacle to cope with everyday activities that they are expected to fulfil. Boys also spoke of how they perceive stigmatisation they visit a friend’s house, because parents usually suspect that they are visiting for food. Droughts also affected the boys’ social lives in that they do not go out to play as often because they are usually hungry.

The older boys could not participate in leisure activities such as watching films at the local halls because they did not have money. In periods of disasters boys recounted that usually break-off relationships with their girlfriends because they cannot afford to pay for their girlfriends' leisure activities such as watching films. Boys expressed that during floods there is not much to do when they are living in an IDP camp, and therefore they succumb to peer pressure by engaging in alcohol and substance misuse/ abuse, such as marijuana. Boys also face particular risk of having to leave the family home in times of stress to seek economic opportunities.

## Men

Men express that they a large burden as breadwinners of the family and are required to fend



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)

for their families including during disaster periods. A man from GVH William he says:

*“...As men we have the major responsibilities to look after our families and it is up to us to clothe and feed the whole family, our wives look up to us for their basic needs” when disasters strike, we find that our wives and children opt to disobey us as they claim we fail to perform our husband and fatherly duties.”*

A man from the Men’s FGD from Chitomeni reiterates the same:

*“Now we are receiving aid but there will be a time when food aid will stop being given, we are afraid of that time, what will we do when that time comes, our fears are about how we are to provide for our children. How to give them the basic necessities because at this point I have no money or property and when my child asks for something for example shoes I cannot give him anything because I have nothing... I also fear for my marriage because soon enough my wife will perceive me as a failure because I cannot provide her with what she is used to and there are other men who want to take advantage of my failing because they have money...And what of my children will they not decide to become prostitutes just so that they can buy the basic things.”*

Disasters also tend to keep men away from their families, because men usually travel long distances to look for food and money. The length of time varies from days, to weeks, to months. In the absence of men, community development slows down due to their migration or opportunity seeking in other areas. Issues such as local governance including enactment of by-laws for example require the support of decision makers, often men. The absence of men in the community affects such activity.

## Disaster Recovery

### Suggestions from the communities on how they can recover from disasters-

Members of communities i.e. women, girl, boys and men who engaged in the study suggested various ways in which they can be assisted during disasters informed by personal experiences of droughts and floods. The recommendations are discussed in the subsequent points.

- The community suggested that food for work and cash for work programs should be reintroduced. This will enable a larger group to access food especially in times of disasters.
- The communities highlighted the need for raw materials to construct dams. For instance, an FGD with men from GVH Kuntaja in Blantyre rural, highlighted the following:

*“We are ready to work and build a dam that can benefit our area. We can collect sand, and water for building the dam and we can also burn bricks for the dam. The dam will help us with irrigation of our crops.”*

- The community members also emphasized that they preferred assistance in kind such as livestock and fertilizer in addition to cash based assistance. This suggestion was linked to decision making power, competition for prioritisation amongst many needs at the household level and at prohibitive costs associated with such



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)

competing priorities e.g. fertilizer. Communities noted how in kind support would lead to improved food security and improved crop yield through the application of fertilizer for example. Improved yields could facilitate excess maize production for sale to support purchase of fertilizer for the next planting season.

- The community members also asked if it were possible for the seeds which are distributed by different organisations, to be handed out before the first rains.
- A majority of the women stressed the need for the distribution of cash crop seeds e.g. soya that can be processed into cooking oil. Due to self-identified lack of knowledge on farming techniques, women expressed the need to learn new methods of farming and other ways of sourcing seeds.
- Community members expressed the need for awareness campaigns which inform people on the need to grow and mix trees that can conserve water. These trees are: Mibawa, Mikuyu and Mchonya. They further added that even though the seeds are distributed, they require support to access markets for their farm produce. They expressed that these markets could also be used to perform barter trades.
- The communities also expressed that the recovery process from floods should include the improvement of existing infrastructure like roads and hospitals. The communities highlighted the importance of government prioritisation of needs of vulnerable groups such as widows, orphans and older people. They stressed that improved housing infrastructure would increase resilience to disasters such as floods.
- The community members suggested that motivational programs which include incentives for positive farming techniques and sustainable environmental research management. Men added the need for capacity building on Agro Forestry techniques and where people are taught the importance and need of planting trees that contribute to soil fertility.
- The community members asked that the Malawian government start creating job opportunities through establishment of factories for fruit processing. For instance the boys from GHV Magaleta said:

*“We are bored and have nothing to keep us busy. If the government could open factories that can make juice from the fruits in Neno. We have a lot of mangoes, baobab, and oranges. Such opportunities will see other people diversify from cutting down trees and making into charcoal for sell.”*

- Community members also expressed the need for agricultural tools like powered irrigation pumps and treadle pumps. In addition to the provision of pumps, communities asked that they be taught how to use these pumps. Communities also requested to have their capacity built on modern farming technology.
- The community members expressed that they would like to also have access to small loans that will enable them to start small scale businesses.
- Girls and boys expressed that they would like to have vocational skills and a starter pack thereafter, to help them start their own businesses. Some of the skills they would like to learn include carpentry, tailoring, steel welding and building. If they are able to use the skills they have acquired then they can earn a sustainable amount of income.
- The community members suggested that government and NGO’s should scale up feeding programmes and introduce such incentives in secondary schools as well. A



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)

girl from GVH William had this to say:

*“I see primary school pupils staying in school because of the porridge that they receive during break time, we would also like something to motivate us and to keep us in school as well.”*

- The community members recounted that there is also need for the establishment of more counselling and guidance programs like the Girl Guides Association.
- The young people also stated that they would like to be involved in the village committees. One boy said that:

*“The committees should include boys in their meetings and programmes as this will ensure that boys’ ideas are represented in the committees. This will also help in building the boys knowledge of their communities which will help them in becoming better community leaders in the future...We would also would like to be given livestock or loans to start-up businesses which we can give back thereafter.”*

#### **d. Women’s output in the context of disasters**

The findings showed that women’s productivity was affected during droughts and floods. The study incorporated domains prioritised under the Women’s Agricultural Empowerment Index to measure changes in women’s productivity during disasters.

#### **Decisions about agricultural production**

The findings showcased that in a majority of cases men were responsible for decision making regarding agricultural produce. This was evident by the fact that focus group discussions with men prioritised issues regarding were the ones that mostly spoke on disaster preparation measures related to agriculture whereas women spoke less on such issues. This is despite the fact women in Africa make up 70% of those engaged in (Mugede, 2013).

#### **Land tenure**

OECD: Measuring Gender In (Equality)—Ownership Rights, 2006 scores Malawi 0.5 out of 5 in terms of Women’s Access to Land (to acquire and own land) and Women’s Access to Property other than Land. Ngwira (2003) notes that although both women and men have legal rights to own land, cultural practices often favour men in this regard.

#### **Gender division of labour**

FAO (2011) notes that ‘Female-headed households are underrepresented in both non-agricultural wage labour and non-agricultural self-employment and have lower shares of income coming from these sources’ The same study also recognizes the effect of disproportionate responsibilities with regard to domestic work on women’s income earning opportunity in paid agricultural employment. This is reflected in the findings.

#### **Access to and decision making power over productive resources**



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)

The study showed that women to some extent and in some instances, had power over productive resources. However women did note that in most cases it was men who had access to monetary and material resources. Women, more so than men strongly expressed that there was a need for more market linkages within their communities to help them find sales for their farm produce during focus group discussions.

### **Decision making power regarding household expenditure**

Despite having some power over productive resources, the study did not clearly show whether women had control over the use of income/household expenditure. FGDs highlighted that men made more references to decision making power with regard to household expenditure. For example, men expressed that their role included renting houses in the upper lands, renting farming fields, and buying land in the upper lands. Despite this, there were other women who spoke of joining village savings and loans, which one could infer resulted in some degree of autonomy in the use of income.

### **Leadership in the community**

The study showed that women were represented (if not equally) within community decision-making bodies. Women were not necessarily occupy positions with most significant power e.g. chairperson.

### **Time use**

The study noted that women's workload increased during disasters especially during droughts. In particular women acknowledged that there was a significant increase in time spent travelling to source water and food. Furthermore, women bear more responsibility for childcare and the overall health and wellbeing of children and vulnerable groups during disasters including droughts and floods. In the context of decreased resources and increased stress during disasters, women are expected to perform similar roles with regard to childcare, homemaking and feeding practices. Several women reiterated that:

*"I wake up before the sun comes up, and I am not usually sure what time that is, but it is before the cock crows". All women have to wake up at that time and we sweep the area where the tents are. We wait for the men to wake up before we sweep their tents and then we draw water for cleaning the toilets and some for washing the plates from the previous night. There after we start cooking porridge, we serve the men, feed the children, wash the plates, bath the children, and then we start getting ready for lunch. We then cook lunch, serve everyone again, wash plates and then we put on a pot of beans to cook. Since beans take a while to cook, we chat whilst watching over the pot"* (Woman, Bitilinyu Camp).

Such accounts indicate that from the time women wake up they assume responsibility for food and hygiene for their families and for the camp more broadly. Women recounted that they made space for themselves during lunch and/or during cooking. Women also spoke of having some time for themselves just before going to sleep, when they attended evening prayers at the camp.



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)

## RECOMMENDATIONS

The following recommendations are devised in accordance with findings from the data collection process and input from all the stakeholders at community level and multiple administrative levels from village to district level. The draft recommendations were also shared with GOAL staff and partners including, NGO's, donors, national and district level government structures for review/feedback and additional input. GOAL's internal technical support functions were also key in the finalisation of the recommendations. Please note that the recommendations provided are not exhaustive. The following recommendations are arranged in accordance with themes identified during the data collection process. The recommendations may be applicable to multiple disasters but were researched with reference to droughts and floods. The list is not exhaustive and in some recommendations may require holistic, complex and resource intensive interventions. The themes are presented in no particular order.

### Preparedness

- Improved infrastructure in particular roads, public services and houses should be considered to include disaster resilience to floods in particular.
- Detailed technical assessments regarding appropriate and feasible flood protection and mechanisms to control floods should be carried out and followed with action plans and resources including finance.
- Where flood protection is not feasible, relocation plans considered by government for populations residing in flood prone areas should take account of meaningful input from women, girls, boys and men and leaders in affected Traditional Authorities (TA). Relocation should be prioritized within the same TA where feasible and agreed with local leadership/chieftaincy structures. Access to fertile land should be a considered as well as impact on natural resources induced by increasing populations in non-flood prone areas. The effect of relocation on women should be strongly considered through consultation with women, to avoid increasing vulnerability by reducing access to water for example. Government should also be cognizant of existing gender disparities with regard to land rights and ownership. Designing for Behavior Change initiatives could support with identifying barriers and motivators to improve enforcement of land rights for women at the community level. Accountability mechanisms could support government enforcement of same.
- Where flood protection or relocation is not feasible, interim contingency planning processes including evacuation plans should be prioritized government should also consider support for household or community level access to canoes.
- Early warning systems which alert vulnerable communities of an impending hazard, should be standardised and shared with VCPC's in all disaster affected communities. The method of communication should reflect findings on differing gendered experiences of receiving such messages and explore opportunities to broaden the reach of communication tools that currently exclude gender groups. For example girls note relying on their parents for information whereas men and boys in particular recognise the role of agriculture extension services and INGOs in



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)



disseminating messages. INGOs should address barriers in access to information by women and girls. Radio is noted as a key medium for message dissemination by all groups. The quality of information was highlighted as needing improvement particularly by girls. Indigenous methods of early warning are relied upon by women, men and boys. Communities should be supported to research the accuracy of such approaches and adopt more appropriate scientific methodologies if required.

- Communities should be trained on contingency planning processes including evacuation simulation drills in line with circulation of hazard warnings. This is necessary in the context of increasingly irregular weather patterns linked to climate change. Protection and support for vulnerable groups should form part of the plan, contributed to by those vulnerable groups.
- All Civil Protection Committees (District, Area and Village) should be organised with the inclusion of both women and men. The Committees should include representatives from young people, older people and people with disabilities and other vulnerable groups. All training components for the committees should include gender equality, and should also highlight existing linkages between Gender and DRR. This should be prioritized by government and non-government monitoring and training bodies.
- The safety of younger children, older people, people with disabilities and other vulnerable groups should be included in decision making to ensure the constructive participation of all stakeholders (women, girls, boys and men). The participation of all stakeholders should also include recommendations from all.
- Councilors and chiefs should be encouraged to enforce the by-laws enacted to protect natural resources.
- Disaster Risk Management and Disaster Risk Reduction should be mainstreamed across all government department initiatives and interventions lead by non-government stakeholders. This should include school curricula.

### Assessments

- A gender assessment should be carried out in all emergency situations with the intent of collecting information on gender specific vulnerabilities, strengths and needs. The findings of the assessment should inform the design and implementation of emergency interventions.
- Meaningful consultation with all stakeholders (people with disabilities, women, children, older people and People Living with HIV) should be facilitated at the evacuation point, to inform camp establishment and identification and design of appropriate assistance for different groups of people. Evacuation and contingency plans should be adequately informed by such consultations as well.
- Identification and establishment of safe and secure infrastructure where women can find refuge with dignity and privacy. The identified settlement area should also include adequate bedding material and mosquito nets.
- Communities surrounding settlement areas following a disaster should be sensitised on the disaster response plan, to ensure transparency and accountability and mitigate



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)

against potential conflict and/or inaccurate targeting for assistance.

- Tools for measuring resilience should be included as part of a broader Monitoring and Evaluation Framework for resilience building initiatives. Findings derived from the measurement should be integrated into recovery planning.
- Risk Assessments in camp settings which focus on gender and child protection should include participation from women, girls, boys and men to identify safe-guarding strategies. Humanitarian practitioners should abide by humanitarian principles identified by sphere guidelines and Humanitarian Accountability Partnership (HAP) and support displaced communities to hold them accountable for their actions.

## Agriculture

- Seed/grain banks should be considered under government policy and partner donor and implementing partner priorities to facilitate access to food in the event of poor harvests related to dry spells/droughts.
- There is need for capacity building of women on modern agricultural practises e.g. usage of agricultural technologies that are user friendly to all. Women and men should be equally targeted for capacity building to help increase productivity within their communities.
- Increased awareness on plants and trees that conserve water and contribute to soil fertility is required. Communities suggested that government/donors/INGOs consider positive motivators such as awards for farming households, including women, girls, boys and men who engage in tree planting to promote soil fertility and sustainable agroforestry practices.
- Female and male farmers should be encouraged as part of government/INGO/civil society led agriculture interventions to diversify crops as this facilitates multiple harvests throughout the seasonal calendar reflecting the differing growing and harvesting seasons of different crops. Drought tolerant crops should also be prioritized as well as nutrition sensitive agriculture. Government/INGO/civil society led organizations who engage in seed distribution should ensure timelines for distributions are in line with seasonal calendar taking specific account of expected. Mechanisms to support farming communities to access affordable quality inputs are preferred to support sustainable outcomes.
- Government/INGO and civil society initiatives to encourage local reforestation should be prioritised. Capacity building and access to quality seed inputs should be provided.
- Improved vaccination campaigns and support for animal care and breeding practices should form part of multi-stakeholder agriculture initiatives.
- Opportunities to rent land in the wetland areas during the dry season is defined as a key coping mechanism by men. Community led solutions to such issues should be supported/leveraged as feasible and appropriate for resilience building activities.



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)

## Livelihoods

- Opportunities to engage in income generation should be equal for women and men to support increased overall household income to build resilience to shocks such as droughts. This can be supported through Designing for Behaviour Change Initiatives which can help define and address barriers to women's engagement in agriculture and non-agriculture livelihood opportunities.
- To support business start-up, in particular for women, access to assets/start-up capital through investment or via savings and loans, depending on vulnerability criteria, should be facilitated by government and/or non-government stakeholders. Sustainable options that encourage self-sufficiency are preferred.
- Access to financial services should be prioritised using innovative technologies such as mobile money in particular for women to support access to and decision making power over financial resources. This should be supported by gender equality interventions through behaviour change initiatives.
- Communities should be trained in sustainable resource management and where feasible, local resources should be leveraged to create business opportunities and linkage to markets. E.g. due to the availability of fruits in Neno, communities can be encouraged/supported to process various foodstuffs into commodities, linked to market assessments on demand for products. Such initiatives can also act as motivators to deter from income generation which negatively impacts on the environment and increases vulnerability to hazards such as charcoal making.
- Marketing linkages should be established to increase market access for poor people, with the inclusion of women. A systems approach could be applied to maximize opportunities for market access. Opportunities for shared value with multiple stakeholders including the private sector could also support this endeavour.
- Sustainable financial management training for women, girls, boys and men including the value of saving and informed investment based on a solid business case should be made available via government and non-government interventions which focus on disaster resilience at the community level.
- Investment in assets such as livestock was noted by men as a coping mechanism to help absorb and adapt to shocks. Such initiatives should be leveraged in the context of a resilience approach to livelihoods and incorporate women as well as men in targeting for same.
- In the event of a disaster communities requested support in the form of cash/food/inputs for work. Where market assessments outline the availability of required commodities, cash should be considered. Where gender power dynamics impact negatively on decision making power over household expenditure, this should be addressed during prevention, preparedness and response activities.



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)

## Water and sanitation

- Government/ donors/ INGO should invest in sustainable water supply, geographically targeted in line with community and in particular women's needs.
- Behaviour Change initiatives which prioritise positive hygiene and sanitation practices should be emphasised as part of a holistic package of resilience building interventions.
- Sanitation marketing campaigns can assist in driving demand for improved sanitation facilities which can support business opportunities for local artisans.
- The disproportionate burden on women, girls and boys for household water collection should be addressed through equality seeking behaviour change initiatives.
- Government and donor protocol should reflect sphere guidelines with regard to suitable sanitation facilities for women, girls, boys and men. Standards should be introduced and maintained throughout the emergency. Hand washing with soap should be available at all sanitation units. Adequate lighting should also be available in Internally Displaced Person (IDP) settings and in sanitation facilities.
- Emergency response materials should be distributed according to people's real and identified needs e.g. in the recent floods, they were instances where diapers were distributed to families who had no infants. Hygiene kits should be prioritised during emergency response Non-food Item (NFI) distributions. Women and girls' needs should be catered for- cloth (chitenje) and menstrual hygiene products should be made available.
- The provision of safe and clean water sources should be made readily available within the camp. The established water points should be accessible to all the different groups in the camp (people with disabilities, young people and older people).
- Bathing facilities including water are essential to support positive hygiene and menstrual hygiene practices in displacement settings.

## Food security and nutrition

- Access to diversified nutritional food, frequent meals and adequate portion size is a challenge during periods of stress. The findings note that women and in particular pregnant and lactating women are disproportionately affected by this issue which in turn affects the nutrition status of children as recognized by women themselves. Food security and nutrition should be prioritised across all interventions. In particular, agriculture and livelihood activities should promote adequate food security and nutritional status for all with emphasis on women and children.
- Coping mechanisms outlined by women such as food preservation and storage should also be encouraged as appropriate.



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)

- There should be sufficient food availability to accommodate the nutritional needs for all affected by disasters, especially growing children, pregnant women and breastfeeding mothers. Displaced populations are particularly vulnerable and targeting formal/informal temporary settlements should be treated as a priority. Access to a varied diet to meet nutritional needs is necessary.

## Health

- Health care provision was noted as inaccessible due to long distances and lack of energy during times of food shortage in particular for women seeking ante-natal care. Barriers to access should be addressed accordingly to improve food security and transport options. This may include financial barriers.
- Sufficient clinical facilities should be made available to people affected by disasters including those displaced. Particular emphasis should be placed on health services for pregnant women, lactating women and mothers with children. Prevention on Mother to Child Transmission services and HIV treatment services should also be provided.
- Sexual and reproductive health considerations with emphasis on family planning, was acknowledged by women as a priority during times of stress and was linked to resources available to provide for additional children. The increased stress on food availability was noted in particular. Access to and uptake of family planning services should also be prioritised in the context of resilience building to climate change as well as emergency response programming.

## Child protection

- Mentorship services and access to positive role models are recommended as part of motivating initiatives in the context of the Designing for Behaviour Change approach to support school attendance and completion.
- Negative coping mechanisms adopted in particular by parents and girls that lead to early marriage coupled with early pregnancy should be addressed as a priority protection concern. Behaviour change initiatives coupled with addressing the root causes of household stress can contribute to addressing this issue.
- Community-based child protection conversations and safeguarding/ risk identification of abuses should be emphasised as part of community development, child protection and resilience building initiatives. This should be considered in the context of increased length and frequency of absenteeism by parents in particular women who travel in search of food and water during times of stress.
- Engagement in transactional sex disproportionately affects women and girls and should be addressed by behaviour change initiatives, child protection initiatives and by tackling root causes such as financial and/or food security issues.

## Education

- The value of education for all children, in particular girls who are disproportionately disadvantaged in terms of school enrolment and completion, should be taught to parents to avoid negative coping mechanisms in times of disaster e.g. drought. Boys are also affected by early school leaving as they are expected to support household income generation in times of stress.



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)

Behaviour Change interventions could assist in identifying barriers and motivators to address these issues.

- Provision of entertainment and edutainment should form part of camp management and protection protocol in displacement settings. Topics such as sexual and reproductive health and climate change adaptation should be included.
- Girls and boy's educational opportunities and vocational training opportunities for women and men should be prioritised through government and government partner led initiatives in times of disasters.
- Appropriate evacuation centres should be established to avoid use of schools as settlement camps during times of displacement.
- Support for retention of teachers during times of disaster should also be considered.

### **Psychosocial support**

- Counselling services/psychosocial support should be made available to women, girls, boys and men in the aftermath of a disaster.
- Youth work and play opportunities should be made available by government and non-government actors in displacement camps.

### **Recovery**

- Reconstruction and recovery response by Government/INGO/civil society led organizations, should ensure that the focus of implemented activities is on building resilient communities and structural mitigation works as well.
- Safe return/relocation policies and plans should incorporate views of women, girls, boys and men and should be implemented swiftly to avoid prolonged disruptions to lives and livelihoods.
- Support access for women, girls, boys and men to reconstruction and recovery materials at the community level as appropriate.



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)

## CONCLUSION

The research set out to understand the differing gendered experiences of women, girls, boys and men in disasters and associated mitigating measures. The study identifies both universal and gender specific experiences of w/g/b/m of disaster response interventions and initiatives, which seek to mitigate the impact of disasters on communities.

The findings generated, were analysed, shared and reviewed by GOAL and multiple partners at the community, district and national level. This was done, with the intention of formulating recommendations to improve the gendered experiences of w/g/b/m in disasters. The recommendations also seek to improve the experiences, outcomes of disaster mitigation interventions, by ensuring that the universal and differing gendered experiences of w/g/b/m are considered during the design, implementation and review of strategies and interventions.

The research methodology facilitated an inclusive and a participatory approach through data collection and interpretation of findings, as well as the subsequent development of recommendations. The research study, noted that experiences, findings and recommendations, identified priorities across key thematic areas, most notably agriculture; livelihoods; water, sanitation and hygiene; child protection; preparedness; assessments; psycho-social support; food security and nutrition; health and recovery. The thematic areas align with international frameworks for disaster resilience such as the Hyogo Framework and the Sendai Framework. The recommendations outlined, will serve to improve GOAL programming in Malawi and globally. GOAL works closely with INGO partners, civil society, governments and private sector. GOAL will share the recommendations widely within Malawi and globally, through various learning fora. GOAL will offer support to agencies who wish to improve programming through the incorporation of an evidence based gender perspectives. GOAL will offer to support government plans and priorities in particular, the anticipated roll out of the Disaster Risk Management and Communication strategy.



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)

## REFERENCES

- Adger, W. N., Huq, S., Brown, K., Conway, D., & Hulme, M. (2003). Adaptation to climate change in the developing world. *Progress in development studies*, 3 (3), 179-195.
- Bradford, A. (2014) 'The effects of global warming', from <http://www.livescience.com/37057-global-warming-effects.html> retrieved from 21/04/2015.
- Care International. (2010) 'Adaptation, gender and women's empowerment', from <http://www.eldis.org/go/topics/resource-guides/climate-change/key-issues/gender-and-climate-change&id=59766&type=Document#.VTYxjTPRZsU> retrieved on 21/04/2015
- Challinor, A.J., Wheeler, T.R., Garforth, C., Craufurd, P.Q. and Kassam, A. 2007: Assessing the vulnerability of food systems in Africa to climate change. *Climatic change*, 83:381-399.
- Chinsinga. B., Chasukwa. M. & Naess. O.L. (2012) *Climate Change and Agricultural Policy Processes in Malawi*, Future Agricultures Working Paper 046, from <http://www.future-agricultures.org/publications/research-and-analysis/working-papers/1587-climate-change-and-agricultural-policy-processes-in-malawi/file> retrieved on 19/04/2015
- DISCOVER (Developing Innovative Solutions with Communities to Overcome Vulnerability through Enhanced Resilience), (2012) "Enhancing Community Resilience Program", Concern Universal Consortium proposal.
- Faxälv, O & Nyström, O, no date. 'Biomass Briquettes in Malawi'. Linköping University, Division of Energy Systems. Degree Project Department of Management and Engineering from <http://liu.diva-portal.org/smash/get/diva2:23747/FULLTEXT01> retrieved on 02/02/2015
- Food and Agriculture Organisation (FAO) (2011) 'Gender Inequalities in Rural Employment in Malawi an Overview' from <http://www.fao.org/docrep/016/ap092e/ap092e00.pdf> retrieved on 21/03/2015
- FAO (2008) 'Climate Change and Food Security: A framework document' from <http://www.fao.org/forestry/15538-079b31d45081fe9c3dbc6ff34de4807e4.pdf> retrieved on 21/03/2015
- Fisher, D, A. (2014) ' A Human-Rights Based Approach to the Environment and Climate Change', from <http://globalinitiative-escr.org/wp-content/uploads/2014/03/GI-ESCR-Practitioners-Guide-Human-Rights-Environment-and-Climate-Change.pdf> retrieved on 15/03/2015.
- GOAL Malawi, (2013) "Gender Analysis", part to the WASH Baseline Survey.
- Goh, A.H.X. (2012) 'A literature review of the gender-differentiated impacts of climate change on women's and men's assets and well-being in developing countries', Capri Working Paper, No. 106. From



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)



<http://www.ifpri.org/sites/default/files/publications/capriwp106.pdf> retrieved on 20/03/2015

Government of Malawi (GoM), (2006) *Malawi Growth and Development Strategy 2006-2011*: Ministry of Economic Planning and Development

GoM, UNRCO situation report No 7, 6 February, 2015 unpublished.

Hajdu F, Ansell N, Robson E, van Blerk L and Chipeta L 2009 'Socio-economic causes of food insecurity in Malawi'. Society of Malawi Journal Vol. 62, (2) 6-18.

Intergovernmental Panel on (IPCC). (2007) *Impacts, Adaptation and Vulnerability*, Working Group II Contribution to the Intergovernmental Panel on Climate Change, Fourth Assessment Report, Brussels, April 2007.

Kondo, T., Chitambira, P., Makanza, T.E. and Tobias, M. 2004. *Breaking inequalities and inequities*, South Africa, CREDA Communications.

Mugede, S, 2013. The Role of Rural Women in Agriculture, *Women, Gender and Development, Republic of Mozambique - Southern Africa* from <http://www.wfo-oma.com/women-in-agriculture/articles/the-role-of-rural-women-in-agriculture.html> retrieved on 05/12/2014

National Center for Atmospheric Research/University Corporation for Atmospheric Research. (2010) 'Avoiding dangerous climate change: *An international perspective*', *Science Daily*, from <http://www.sciencedaily.com/releases/2010/09/100916170925.html> retrieved on 15/03/2015

Ngwira, 2003. 'Women's property, inheritance rights and the land reform process in Malawi. *Institute for Policy Research and Analysis for Dialogue*'. <http://www.sarpn.org.za/documents/d0000585/index.php> retrieved on 15/03/2015

Population Action International (PAI) (2010) *Annual Report*. From [www.scribd.com/doc/58584282/Population](http://www.scribd.com/doc/58584282/Population) retrieved on 22/04/2015

Population, Climate Change, and Sustainable Development in Malawi (2012) *Policy & Issue Brief* from <http://pai.org/wp-content/uploads/2012/09/Malawi-Brief.pdf> retrieved 21/04/2015

Maliski, B. 2008. 'Impact Assessment of Chitetezo Mbaula. *Improved Household firewood stove in Rural Malawi*' from [http://www.cepa.org.mw/documents/ECRP\\_documents/Impact\\_Assessment\\_of\\_Chitetezo\\_Mbaula\\_Improved\\_Household\\_Firewood\\_Stove\\_in\\_Rural\\_Malawi%20%283%29.pdf](http://www.cepa.org.mw/documents/ECRP_documents/Impact_Assessment_of_Chitetezo_Mbaula_Improved_Household_Firewood_Stove_in_Rural_Malawi%20%283%29.pdf) retrieved on 15/02/2015.

Mugede, S.M. (2013) *Women, Gender and Development, Republic of Mozambique - Southern Africa*, from <http://www.wfo-oma.com/women-in-agriculture/articles/the-role-of-rural-women-in-agriculture.html> site accessed on 23/04/2015



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)

Sendai Framework for Disaster Risk Reduction 2015-2030, 18 March 2015 from [http://www.wcdrr.org/uploads/Sendai\\_Framework\\_for\\_Disaster\\_Risk\\_Reduction\\_2015-2030.pdf](http://www.wcdrr.org/uploads/Sendai_Framework_for_Disaster_Risk_Reduction_2015-2030.pdf) retrieved on 23/04/ 2015

Sibale, B. (2010) *The Invisible Farmer: "Gender and Power Analysis in the Context of Food Security in Malawi"*, Local and Global Action for Food Security in Africa (LAGAFA) And Women in Agriculture Projects, second draft. CARE Malawi.

Skinner, E and Brody, A. (2011) '*Gender and Climate*', *Bridge Bulletin*, issue 22, Available Online at: <http://www.bridge.ids.ac.uk/bridge-publications/cutting-edge-packs/gender-and-climate-change> (viewed on 21st April, 2015).

Tadesse, D. (2010) '*The impact of climate change in Africa*', ISS Paper 220, from <http://www.issafrica.org/uploads/Paper220.pdf> retrieved on 21/04/2015

Tandon, N. (2007) "*Bio politics, climate change and water security: impact, vulnerability and adaptation issues for women*" in *Agenda, Bio politics New Technologies Trilogy*, Vol.1, 1:4-17.

Thurlow, J and Pauw, K. 2009. Malawi Strategy Support Programme (MaSSP) Brief No. 2 '*Economic Losses and Poverty Effects of Droughts and Floods in Malawi*' from <http://www.oerafrica.org/system/files/8508/economic-losses-and-poverty-effects-droughts.pdf?file=1&type=node&id=8508> retrieved on 23/04/2015.

United Nations Disaster Assessment and Coordination (UNDAC) report on '*Malawi Floods*', 6<sup>th</sup> February 2015, unpublished.

United Nations Development Programme, 2013. '*Gender and Climate Change Policy. Asia and the Pacific* brief from <http://www.cid.org.nz/assets/Key-issues/Human-development/Gender-climate-change-POLICYBRIEF.pdf> retrieved on 20/02/2015

UNFCCC (2008) *Report of the Conference of the Parties on its Thirteenth Session, Held in Bali from 3 to 15 December 2007*. Addendum Part Two from <http://unfccc.int/2860.php>: retrieved on 20/04/2015

UN Women Watch (2009) '*Women, Gender Equality and Climate Change* from [http://www.un.org/womenwatch/feature/climate\\_change/](http://www.un.org/womenwatch/feature/climate_change/) retrieved on 23/04/15

World Bank (2011b) *Mitigating the Impact of Drought on Food Security in Malawi*, New York: World Bank

World Meteorological Organization, (2003). "*Climate into the 21<sup>st</sup> Century*", University Press, Cambridge UK.



This research was made possible with support from the American people, delivered through the U.S. Agency for International Development (USAID)