

The Inter-relationship between Climate Change, Mental Health and Gender-Based Violence in Malawi

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The Inter-relationship between Climate Change, Mental Health and Gender-Based Violence in Malawi

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EXECUTIVE SUMMARY

The links between climate change, gender-based violence & mental health are profound and deep. There is no doubt that women's health and well-being is being affected by climate change and extreme weather events; these impacts are compounded by existing structural socio-economic inequalities.

There is currently little research (empirical and conceptual) that explores the inter-relationship between climate change, mental health and gender-based violence in developing countries and even less so in Malawi, a country vulnerable to the impacts of climate change, has gender-based violence issues and has limited resources for mental health services. Our research confirms that this is currently a significant knowledge gap.

This research was conducted to provide a determination of the inter-relationship between climate change, GBV, mental health and climate justice; and by way of bridging a knowledge gap. Conducting this work was not only unique in terms of approach but also hugely challenging given COVID restrictions constraining to some extent the field work. Our research did however deliver some new breakthroughs in terms of providing new evidence, insight and understanding from the grass roots. This work required the design & development of a robust ethical approach to safeguarding the participants who contributed to the study, but also the development of a methodology that was flexible enough to allow for the real voices, experiences and stories of women to be captured, analysed, synthesised and consolidated. This richness in the data that was generated allowed for good discussion and recommendations of 'potential solutions' for the provision of recovery & support services for women.

The poorest and most vulnerable women in select Northern States of Malawi are being impacted disproportionately from changes in the climate and extreme weather events.

Findings from this research, suggest that climate change is an indirect driver of gender-based violence (GBV). Whilst issues of GBV already existed before climate change, it is clear that the impacts of climate change are compounding existing issues of violence, as well as increasing the likelihood of new instances of violence. The main reasons for this are that the impacts of climate change are resulting in an increase in food insecurity, poverty and stress, all of which are known to be existing drivers of GBV. Climate change is intensifying and exacerbating these existing issues that act as drivers for GBV. In addition to this, extreme weather events like flooding are known to increase risk and vulnerability for women to experiencing various forms of gender-based violence.

Our research highlights that women's mental health and wellbeing had been affected by the changes in the weather in Malawi. Issues range from emotional pain, feeling sorry, sad, or depressed, worrying and restlessness & the mental health impacts related to their marriage. Women also mentioned feeling devastated or traumatised, stressed, experiencing fear and being traumatised by physical impacts. Some admitted having suicidal thoughts.

Interviews with local women revealed the many ways in which their mental health becomes negatively affected, both directly and indirectly, by adverse climate events. The first and most widely cited effect was constant worrying about their children, the lack of sufficient food within the household, hunger and malnutrition, shock and trauma following floods and landslides, insomnia caused by long-term trauma, illustrating the inseparable link between mental and physical health. Many speak about their loss of hope and pride, and feeling powerless in the face of adversity, with some participants being pushed to contemplate taking their own lives.

Other than financial and material measures to combat poverty and food insecurity, which is an often regular finding/request/need from those living in poverty, what is clear is the urgency of need by women for support at both individual and household levels. Our data revealed that the majority of participants required counselling and support from a mental health nurse after their conversation with the research team member. This exemplifies how urgent the need for providing this kind of support is right now.

Our research highlights that currently the support required is not available in the community. Worryingly very few women mentioned that they had any coping strategies to address these issues they were facing. In terms of solutions there is clear demand for developing capacity at the grass roots allowing women and others 'to support each other' locally' with health professional and spiritual support acting as anchors.

To conclude "Health is not a luxury for the rich, but a human right for all" is a quote by Dr Tedros the DG of the WHO. With this statement in mind, this research conducted provides great impetus and momentum to expand on what has been done at a relatively small scale in Malawi to replicating, scaling up and scaling out to other districts in the country as well as other countries in Sub-Saharan Africa and beyond. By way of process this will be a step towards securing people's human right to a decent quality of life and climate justice.

1. INTRODUCTION

Since 1980 the world has seen an 80% increase in climate related disasters. These disasters are disproportionately impacting the poorest countries the most; the countries and people who have contributed least to climate change such as Malawi.

Although it is often hard to pin-down any one specific related disaster to climate change, evidence is pointing to an increase in the frequency of extreme weather events. With predictions that heatwaves, heat stress and heavy rainfall will become more intense and frequent in Sub-Saharan Africa this has implications for the safety and survival of the poorest people. The significant loss to shelter, livestock, food, basic provisions including access to water and incomes, the resultant impacts have left people especially women distraught and broken. At the same time recent evidence is pointing to the fact that extreme poverty is expected to rise for the first time since 1998 in Sub-Saharan Africa due to the economic fall out of the Covid 19 pandemic resulting in over 500 million people living in extreme poverty resulting in a global climate and health crisis.

Research in countries such as Australia provides some insights on the connections between mental health and climate change. This can be seen through a casual (or indirect) pathway. For example, drought can affect mental health (Berry et al. 2009; Palinkas and Wong 2020), the economic impacts of land degradation and the uncertainty of income that is reliant on environmental conditions, has led to many farmers around the world reporting increased stress linked to drought (Hayes et al. 2018). However, overall whilst the impacts of climate change on mental health is gaining more attention and may be appearing more frequently in the literature now than before, Brown et al. (2022) highlights that this research is not being translated into action and is still generally underrecognized by health practitioners and clinicians (Brown et al. 2022).

1.1 Project Aims and Objectives

Despite gaining more attention in literature, globally little evidence and data is available on the extent to which climate change is having an impact on gender-based violence, leading to mental health problems. And to what extent this is manifesting in the right to development, particularly for women and girls. Much of the evidence that does exist is anecdotal. To provide a deeper understanding of the issues, this project set out to determine the inter-relationship between climate change, gender-based violence, mental health and the implications for climate justice and progressive social change. The research was country specific to Malawi and was designed and aligned with supporting the Government of Malawi's Health Sector Strategic plan II, whereby they highlight that "poor mental health data remains a key challenge to prevention, control and care on Non-Communicable Diseases". The data and insights from this research was used to make recommendations in how to build resilience and identify and the provision for recovery and support structures.

Specifically, the project set out to deliver 3 objectives:

Objective 1: Provide a deeper understanding of the inter-relationship between climate change, gender-based violence, mental health and climate justice via rapid review of literature and fieldwork (via case studies) to evidence insights and understanding.

Objective 2: Conduct a stakeholder mapping exercise, including social actor and institutional analysis, to identify i) approaches to grass roots support for women and ii) suggestions on what more needs to be done to support recovery, build resilience, cope with impacts and improve mental health & well-being.

Objective 3: Conduct participatory development workshops post-data collection to discuss and identify collaboratively 'solutions' to the provision of support and recovery services.

This was a collaborative project between GCU's Mary Robinson Centre for Climate Justice, Mzuzu University in Malawi, with expertise in psycho-social counselling and gender-based violence and Life Concern Organisation in Malawi, a non-profit making non-governmental organization which strives to provide sustainable economic empowerment to women and vulnerable populations and mitigate the impacts of climate change.

1.2 Background and Context

Climate change is one of the most significant public health issues of our time that has both physical and mental health consequences (Brown et al. 2022). In addition to this, climate change is known to exacerbate drivers of gender-based violence (GBV) having direct and indirect implications for mental health. Malawi is highly vulnerable to climate change and can experience extremes and unpredictable weather events such as drought, flooding and cyclones. This can all contribute towards major disruption issues like food shortages, water contamination, loss of home and livelihoods and population displacement, which all negatively impact on the population's physical and mental health (Hayes et al. 2018).

There is little country specific research on mental illnesses generally in Malawi and this lack of data is a major barrier to addressing mental health challenges and providing adequate support (Kauye 2008; Rieger et al. 2016). There is even less research exploring *the connections between mental health and climate change* in Malawi specifically.

Simultaneously, Malawi has longstanding issues with gender-based violence (Mellish et al. 2015) and similarly to the lack of data on mental health, there is a gap in the literature on the relationship between climate change and gender-based violence (Kauye 2008). However, the Malawian Government acknowledges that gender-based violence in the country is an issue they are committed to preventing (Mellish et al. 2015). They have taken several steps to address this, including a series of legislative acts to address violence against women and improve gender equality. These acts include the 2006 Prevention of Domestic Violence Act, the Deceased Estates Act 2011, the Gender Equality Act 2013 and the Marriage, Divorce and Family Relations Act of 2015. Despite this, it is recognised that there is more to be done to tackle domestic abuse and gender-based violence in Malawi (National Statistical Office (NSO) and ICF 2017).

2. METHODOLOGY

To deliver the aims and objectives as set out in 1.1, this project used a robust methodological approach from the outset. These are described in the sections that follow:

2.1. Rapid Review of Literature

A rapid review of literature was conducted to identify and document current published evidence on climate change, gender-based violence and mental health in Malawi. The research question being addressed is “*What is the relationship between climate change, gender-based violence and mental health?*” The literature was analysed through a climate justice lens to draw out specifics on the human rights impacts of climate change. Publications being sought included mainly peer-reviewed literature and some grey literature.

2.2. Setting research parameters and scope

The framing for analysing the literature search was built on the following aspects:

- Human Rights

In 2021, the International Human Rights Council recognised that a clean, healthy and sustainable environment was a human right (UN 2021). As such, a human rights-based approach was used for this project, focusing on the right to health (WHO 2017), the right to a healthy environment, and the elimination of all forms of discrimination against women, (UN 2022).

- Capabilities Approach

A capabilities approach to climate justice allows for the identification of distributional unequal impacts of climate change and recognises the unequal vulnerability of certain groups, whilst simultaneously considering the human rights implications of the impacts of climate change (Schlosberg 2012). The capabilities approach focuses on human well-being and the freedoms to make decisions.

- Valuation and Discussion of the Literature Review

Stakeholder engagement with the project team and the projects wider network was an integral part of the literature review exercise and was used as a means for valuation and discussion of the main findings. The engagement was also used to further explore issues identified in the

literature review and open up the opportunity for other stakeholders to contribute new knowledge and insights to complement the literature main findings as well as inform the development of the case studies and data collection.

2.3. Qualitative Field Work

2.3.1. Ethical Considerations and Participant Safeguarding

Prior to conducting any field work with participants, the project team spent considerable time to work through, develop and refine the ethical boundaries governing the project. A robust set of criteria were established as described below:

- Ethical Approval

Ethical approval was sought and granted from the representative organisations ethical approval authorities: (1) For Glasgow Caledonian University the Research Ethics Committee and (2) The University of Mzuzu Ethics Committee. The main ethical considerations for this project can be found in Appendix B. In summary the main priority of the team was to ensure that the data collection did not cause stress or discomfort to the research participants. The in-country research team at Mzuzu University and Life Concern Organisation are experienced in data collection of this nature with the population identified but nevertheless, the project team was acutely in line with paying due diligence to ethical principles and thus prepared to respond quickly and appropriately to any signs of stress or discomfort.

- Mental Health Nurse Support

A mental health nurse was recruited for this project to provide mental health support to both the participants and anyone on the research team who felt that they required this support. All participants were made aware of this support provision at the end of their one-to-one interview. If they opted to engage with the mental health nurse post-interview, travel costs were provided. However, there was no requirement or expectation to use this service and participants were made aware that all conversations with the nurse were strictly confidential and information would not be shared with the research team.

- Gender-based Violence Training

It was identified early on that training on gender-based violence would be important for all project staff. This was led by Dr Katy Proctor, an expert in gender-based violence at Glasgow

Caledonian University. The training focused on gender-based violence terminology, active listening, support pathways, confidentiality, participant safeguarding and researcher self-care.

- Gender-based Violence Steering Group

Ahead of data collection, a gender-based violence steering group was set up with lead academics from GCU's gender-based violence research group. Dr Katy Proctor was the main contact for this steering group and provided support and advice to ensure that participant safeguarding was maintained throughout the project.

- Research Assistant Training

Specific training was provided to Malawian based research assistants on conducting qualitative field work including semi-structured interviews, data collection and data handling by the project co-ordinator Dr Michael Mikulewicz.

2.3.2. *Field Work – Approach and Tools*

Life Concern Organisation worked with the local community leaders to seek approval for the participation of individuals from the community. Once the approval from the community leaders had been secured Life Concern engaged with the local women to identify and recruit participants and have consent prior to any engagement.

A range of non-invasive qualitative, participatory data collection tools were used for qualitative data collection. These were surveys and one-on-one interviews. The data collection tools centred around asking closed and open questions; to gauge experience and opinion around the impacts of climate change as well as aspects of climate justice with a specific focus on gender-based violence and mental health as well as a range of slightly broader topics including general health, livelihoods, poverty, food security, basic services, social networks, culture, governance, gender, decision-making, education and climate action.

The data collection methods and procedures for the field work were guided by the UN's IFAD published guidelines on '*Reaching Rural Women through a Consultative Design Process*' (Jafry et al. 2013). In addition to this, tools from the CGIAR Gender Norms, Agency, and Innovation in Agriculture and Natural Resource Management: The GENNOVATE Methodology also helped to shape the methodological approach to data collection (Petesch et al. 2018)

2.3.3. Participants

In total, 213 participants were engaged in this research. All were women over 18 and only those who had provided consent on their participation. The participants were residents from traditional authority Mwankhunikira including Chinyolo, Mzokoto, Bumba, Mkombezi, or 3 areas from Traditional authority Chapinduka; Tcharo, Chipunga and Msuku.

2.3.4. Survey & One to One Interviews

Whilst it is important to recognise that culturally the village leaders and elders are usually approached first about research taking place in the community, it was identified early in the methodology development that this could contribute towards putting participants at risk if they are associated with talking about gender-based violence.

To address this, a two-phased approach to data collection to safeguard participants was used. Phase 1 involved an initial survey. This meant that women could self-identify as having experienced gender-based violence and indicate if they would be comfortable to be contacted for a follow up one to one interview for more in-depth discussions as Phase 2. This initial survey was conducted at each of the research locations with 213 participants. Not only did this place the power with the participant, it also helped reduce any increased risk to participants that have been associated with the project. Village leaders were aware that surveys and interviews on the impacts of climate change were taking place with women, but that not every participant would be talking about issues of gender-based violence and mental health. The survey template can be seen in Annex A1 and the template for the one-to one interviews is provided in Annex A2.

Out of the 213 survey participants, 46 participants were then identified and contacted for a follow up one to one interview based on the following inclusion criteria outlined in Table 1.

Table 1 – Follow up one-to one interview inclusion criteria

Inclusion Criteria for Interviews			
Discussed Gender Based Violence (GBV) in the survey	Discussed mental health in the survey	Mentioned a connection between these issues and climate change	Stated that they felt comfortable to be contacted for a follow up interview

2.3.5. Data Analysis

Applied thematic analysis (Guest et al. 2014) was used as the analytical framework for processing the survey and one to one interview data. Applied thematic analysis is a pragmatic approach to data analysis, which uses a combination of tools drawing from aspects of grounded theory (Glaser and Strauss 1967), phenomenology (Husserl 1962; Guest et al. 2014) as well as other qualitative analysis tools. Guest et al. (2014) defines applied thematic analysis as an approach that is a *"rigorous, yet inductive, set of procedures designed to identify and examine themes from textual data in a way that is transparent and credible."*

Using NVivo software, the survey data and interview transcriptions were coded in two-phases, i) structural coding and ii) thematic coding:

- Structural coding

The structural coding involved coding the responses to the interviews based on their response to the interview questions, organising or grouping all of the responses under each question code.

- Thematic coding

Thematic coding was completed post structural coding. Emerging themes were identified and responses coded based on the following overarching thematic areas of interest related to the project (Table 2).

Table 2 – Overarching Themes

Overarching Themes	
1.	Health and Wellbeing
2.	Mental Health
3.	Gender-based Violence
4.	Climate Change Impacts

From these initial themes, further sub-categories were identified and listed in the code book provided in Annex B.

2.4. Stakeholder Mapping Exercise & Participatory Development of Support Services

Institutions and organisations identified as key stakeholders in Malawi involved in climate change, climate justice, mental health, gender-based violence, social resiliency and recovery work were identified using an online search. This was done to provide a platform for collaboration and partnership building with particular reference to designing support service provision to recovery.

A snowballing technique was used to identify these institutions who were then invited to a project launch as well as the end of project evaluation and feedback workshop. Involving a range of stakeholders from the outset provided an opportunity for the project team to engage with stakeholders early in the research process. It was also intended to identify potential gaps that currently exist in support service provision from which new approaches can be developed.

At the end of project workshop, key findings of the project were presented to a range of stakeholders after which a set of recommendations & solutions to the provision of mental health and GBV violence for women affected by climate change were explored.

3. FINDINGS

3.1. Global Knowledge on Climate Change and Mental Health

Climate change related impacts on mental health can be categorised into either having direct or indirect mental health impacts; these can be psychosocial or behavioural in nature (Berry et al. 2009; Hayes et al. 2018; Cianconi et al. 2020; Palinkas and Wong 2020). Hayes et al. (2018) defines psychosocial well-being as the connection between social and psychological conditions that shapes human well-being.

- Indirect and Direct impacts of Climate Change on Mental health

Within climate change and mental health literature, climate change hazards are organised into acute, sub-acute and chronic categories (Manning and Clayton 2018). Acute hazards relate to incidents like flooding or hurricanes, whilst sub-acute hazards relate to persistent issues like long term or recurring drought. Chronic hazards relate to rising sea level rises or increases in temperatures that are slow moving (Hayes et al. 2018). These climate change related hazards can have a range of direct and indirect psychosocial consequences (Berry et al. 2009; Hayes et al. 2018; Manning and Clayton 2018).

Some examples of climate change related direct and indirect mental health impacts from Hayes et al. (2018) review are illustrated in Table 3 and 4.

Table 3 - Examples of Direct Impacts summarised from a review by Hayes et al. (2018).

Direct Impacts
Incidents of trauma relating to acute climate change induced extreme weather events are recognised as direct psychosocial impacts of climate change (Hayes <i>et al.</i> , 2018). These can include flooding, hurricanes, wildfires and heatwaves (Hayes <i>et al.</i> , 2018).
Increased temperature rises and extreme weather events are detrimental to mental health outcomes (Meierrieks 2021). There is a relationship between incidents of increased temperature rise (for example, heatwaves), humidity and visits to the hospital for mental illnesses and behaviour and mood disorders (Chand and Murthy 2008; Hayes et al. 2018; Mullins and White 2019). Those more vulnerable to this are individuals with pre-existing mental health conditions or illnesses or those that have impaired thermoregulation (Hayes <i>et al.</i> , 2018).
Heat stress is also linked to some instances of suicide (Cianconi et al. 2020).

It is highlighted by Hayes *et al.* (2018) that an increase in disasters does not necessarily result in an increase in mental illness. It is a complex issue that is specific to each context.

Flooding, hurricane and wildfire incidents, extreme weather events that are exacerbated by climate change, are also commonly linked to direct mental health consequences with reports of post-traumatic stress disorders and depression being associated with these extreme weather events (Bryant *et al.* 2014; Hayes *et al.* 2018).

Table 4 - Indirect Impacts summarised from a review by Hayes *et al.* (2018).

Indirect Impacts
Indirect impacts of acute climate change related disasters like increased risk of violence, food insecurity, migration and loss of land or home can also result in mental health consequences (Hayes <i>et al.</i> 2018; Clemens <i>et al.</i> 2020; Slekiene and Mosler 2021).
Persistent (sub-acute) drought issues are known to be linked to mental health issues and are classified as an indirect mental health consequence, especially for populations that rely on farming for food source or for income. This is also related to food insecurity, another theme linked to climate change that can have detrimental impacts on mental health due to stress, depression and anxiety (Hayes <i>et al.</i> , 2018).
Chronic environmental issues like drought or flooding can also be linked to climate induced forced migration and conflict (Hayes <i>et al.</i> 2018; Schwerdtle <i>et al.</i> 2020).
One community in Australia was said to be collectively suffering from “community post-traumatic depression” due to a history of prolonged drought and the stress this placed on the community (Whittenbury 2013). Mental health issues at the community level linked to indirect impacts of climate change is an area that has been highlighted needs further research (Hayes <i>et al.</i> , 2018).
Loss of home or local environment like the degradation of land, deforestation, glaciation and sea level rise linked to climate change have indirect connections to a rise in environmental related anxiety issues including eco-anxiety, eco-paralysis and <i>solastalgia</i> as well as depression (Hayes <i>et al.</i> 2018; Cianconi <i>et al.</i> 2020).

3.1.1. Climate Change, Anxiety and Depression

Increasing awareness and worry over the impacts of climate change can have a detrimental impact on mental health and well-being (Clemens et al. 2020). Many studies in the ‘Global North’ and Europe refer to this as eco-anxiety which is defined as a specific form of anxiety relating to stress regarding the experience of environmental changes or the knowledge of them (Usher et al. 2019). Heightened anxiety can also be triggered by weather warnings and can be amplified for individuals based on the perceived risk (Hayes et al. 2018). Eco-anxiety or climate-anxiety are terms commonly used to describe an anxiousness about the future and how climate change is going to impact it and are often associated with youth and climate related mental health (Wu et al. 2020). However, within this rapid review of literature, this term was more commonly found in literature from the “developed” countries.

Eco-paralysis is also found in literature that explores climate change and its impact on anxiety disorders. Eco-paralysis is defined as not being able to take mitigating action to protect against the impacts of climate change (Hayes et al. 2018). Depression is also linked to climate change related disasters, with reference in literature relating to acute extreme weather events like flooding which has resulted in a loss of belongings or home environment (Cianconi et al. 2020) as well as depression linked to slow moving climate change issues that impact income (Whittenbury 2013).

3.1.2. Climate Change, Trauma and Suicide

In addition to anxiety and depression relating to climate change, post-traumatic stress disorders are often associated with both fast and slow-moving sub-acute or chronic climate change events. One community in Australia was said to be collectively suffering from “community post-traumatic depression” due to a history of prolonged drought and the stress this placed on the community (Whittenbury 2013). In addition, drought events have also been linked to suicides particularly amongst older generations (Cianconi et al. 2020).

Post-traumatic stress can also be linked to acute extreme weather events that have resulted in a trauma, often relating to the loss of loved ones, homes or environment (Hayes et al. 2018; Palinkas and Wong 2020). There are also links between acute climate change related events like wildfires and hurricanes and an increase in the reporting of feelings of ‘survivor guilt’ as well as an increase in reports of suicide (Hayes et al. 2018).

3.1.3. Climate Change and Youth Mental Health

A report by the inter-governmental panel on climate change found that climate change has a serious impact on children and adolescent's mental health and should not be viewed as two separate issues (Clemens et al. 2020). The report highlighted that children and adolescents that are forced to migrate due to climate change are at greater risk of violence and trafficking as they are often separated from their families and caregivers leaving them exposed. The report also found that unaccompanied refugees are more likely to experience mental health challenges from traumatic climate events (Clemens et al. 2020).

3.2. Climate Change and Mental Health in sub-Saharan Africa

Many countries in sub-Saharan Africa have no budget for mental health services and have no mental health legislation (Skeen et al. 2011) which puts considerable strain on existing health services. The mental health "treatment gap" is known to be at its widest in low resource countries (Wright and Chiwandira 2016) and Low- and Middle-Income Countries (LMICs) which have limited resources for mental health care (Kola et al. 2021). This is a challenge for countries like Malawi and others in sub-Saharan Africa classified as LMICs as they tend to have limited capacity for addressing mental health challenges, whilst simultaneously being impacted by climate change and extreme weather events, which have the potential to detrimentally impact population mental health (Skeen et al. 2011). This is compounded by the fact that some of the impacts of climate change are known to exacerbate existing mental health challenges as well as lead to new ones.

3.2.1. Climate Change and Mental Health Risk Factors

Poverty is a potential risk factor for mental health disorders (Patel and Kleinman 2003; Skeen et al. 2011; Slekiene and Mosler 2021) meaning that those who are living in poverty and are vulnerable to the impacts of climate change, may be at an increased risk of suffering from mental health issues. This is also linked to food security, water security and energy security issues. Those experiencing resource security challenges are also likely to be experiencing poverty. This is a challenge for many countries across sub-Saharan Africa that are also vulnerable to the impacts of climate change.

3.2.2. Mental Health impacts of Climate Change induced Migration and Displacement

Other common research themes identified in this review include the potential overlaps between climate change, migration and health. This was identified as requiring further research, especially in terms of the gendered health impacts of climate related migration (Schwerdtle et al. 2020). Despite the extensive systematic literature review on health and climate change related migration completed by Schwerdtle et al., (2020), mental health was only mentioned in the text three times suggesting that it was not a common theme or research topic within the literature. However, the paper acknowledged that mental health issues are often common in situations of forced migration or displacement (Schwerdtle et al. 2020). Solastalgia is often referred to within climate change and mental health literature within the context of displacement (Hayes et al. 2018). It refers to the feeling of the removal of solace following an extreme climatic event that has resulted in the loss of a home environment (Hayes et al. 2018).

3.3. Climate Change and Mental Health in Malawi

There is little research on mental illnesses in Malawi and this lack of data is a major barrier to addressing the problem (Kauye 2008; Rieger et al. 2016). There is even less research based in Malawi that explores the connections between mental health and climate change impacts such as drought and food insecurity, the latter two being cited most commonly in the literature. Research in other countries also reflect this and highlights that the link between mental health and climate change occurs through the casual (or indirect) pathway between drought and mental health, especially amongst those engaged in farming activities. The economic impacts of land degradation and the uncertainty of income that is reliant on environmental conditions has led to many farmers around the world reporting increased stress linked to drought, an issue intensified by climate change (Hayes et al. 2018). This is of concern for Malawi as the majority of the work force are engaged in small-holder or subsistence farming activities, with approximately 80% working in rural locations and with women playing a crucial role in these farming activities in Malawi (Bezner Kerr et al. 2019). With climate change resulting in unpredictable weather patterns, ensuring a successful crop yield can be stressful and have a huge impact on mental well-being and mental health (Suckall et al. 2015).

3.3.1. Food Insecurity and Mental Health in Malawi

It is estimated that one quarter of households in Malawi experience chronic food insecurity (FAO et al. 2017; Bezner Kerr et al. 2019). Vulnerable groups of people experience the risks and impacts of food insecurity and climate change disproportionately due to being exposed to risks more frequently as well as having a reduced capacity to adapt to threats (Bezner Kerr et al. 2019). Recent research by Mark et al. (2020) adds to the literature that suggests there is a link between food insecurity and depression and their study found that this is associated with and was more common in the dry season. This is when food security is known to be less stable and climate change impacts have the potential to exacerbate these food security challenges, highlighting another indirect mental health impact of climate change.

3.3.2. Limited Mental Health Resources in Malawi

Like many countries in sub-Saharan Africa, Malawi faces challenges with mental health provisions, and results from this literature review have found that these challenges are often associated with staff shortages and inconsistent drug supplies (Kauye 2008). Specifically in 2008 there was a reported shortage of mental health trained clinicians with psychiatric nurses providing most of the care (Kauye 2008). Another challenge in providing mental health care in Malawi is that there can be high levels of stigma associated with mental health illnesses which acts as a barrier for many people seeking help or support (Wright and Chiwandira 2016).

As part of a project to address mental health in Zomba (Southern Malawi), 700 village health workers (known as Health Surveillance Assistants (HSAs) were employed to work in the district (Wright and Chiwandira 2016). The HSAs' role was to help identify people who are in distress or at risk, but not to reach a mental health diagnosis (Wright and Chiwandira 2016). HSAs offered mental health support services in rural locations where people would otherwise be unlikely to receive care (Wright and Chiwandira 2016). Although the project had limitations in terms of scale and HSA reporting objectivity, the project nevertheless highlighted the potential for the design to be scaled up in other regions and illustrated the benefits of increasing mental health support at the community level in Malawi, especially within rural contexts, as well as highlighting the need for more research into mental health in Malawi (Wright and Chiwandira 2016).

3.4. Global Knowledge on Climate Change and Gender-Based Violence

Gender-based violence (GBV) is understood as to include physical violence, as well as mental and emotional violence, sexual violence, coercion, manipulation and other forms of harm (Camey et al. 2020; Vithanage 2021). In the context of climate change and gender-based violence in developed countries, several studies in the US reported an increase in gender-based violence after Hurricane Katrina, particularly intimate partner violence (Anastario et al. 2009; GGCA 2016). In addition to this, a study by Schumacher et al. (2010) found that there was a correlation between intimate partner violence, depression and post-traumatic stress disorders post Hurricane Katrina and highlighted that this may be overlooked in post disaster response.

3.4.1. Vulnerabilities in Conflict and Disaster Settings

Women are more vulnerable to gender-based violence in conflict affected settings (Hossain et al. 2021) and whilst extreme weather events are different from conflict settings, they can often take place in the same location where conflict already exists, compounding existing issues. Furthermore, the trauma and emergency response of conflict and climate change related disasters can have overlapping similarities. Hossain et al. (2021) highlights that gender-based violence services should be incorporated into programmes that are aimed at wider populations so that there is a clear pathway to support services during emergency situations.

Alston (2014) emphasises the need for gender mainstreaming in climate change adaptation and mitigation policy to reduce vulnerability to climate related gender-based violence. Whilst there has been a rise in gender-sensitive language in climate policy and law, this has not translated into wide ranging action to address gender-based violence systematically (Vithanage 2021).

3.4.2. Climate Change related Risk Factors for Gender-Based Violence

Climate change is resulting in considerable disruption to food and water supplies as well as food production cycles (Alston, 2014) which are known risk factors that can contribute to both poor mental health, mental health conditions and gender-based violence and that have been highlighted in previous sections. Women are more likely to have lower land ownership and have lower levels of education as well as reduced employment opportunities in post-disaster contexts (Alston 2014) which can increase their vulnerability. Whilst the impacts of climate change will be experienced by all, the same impacts affect women and girls disproportionately

(Vithanage 2021). In addition to this, climate change can exacerbate existing risk factors of gender-based violence, as well create new ones (Whittenbury 2013; Vithanage 2021). For example, water scarcity has led to an overall increase in gender-based violence globally (Vithanage 2021).

3.5. Climate Change and Gender-Based Violence in sub-Saharan Africa

The Global Gender and Climate Alliance (GGCA) commissioned a literature review in 2016 to provide an evidence base on how vulnerability to climate change and climate adaptation decisions vary by gender (GGCA 2016). The report features a section on gender-based violence and highlights that a large proportion of studies on gender-based violence in post-disaster contexts within developing countries are not directly related to climate change (GGCA 2016). However, after the flooding events in Bangladesh in 2007, there has been some research that found that there was a considerable increase in reports of violence towards women in these contexts (Kalam Azad et al. 2013; GGCA 2016).

3.5.1. Climate Change and the rise in Sexual Exploitation and Trafficking

There is also an increase in reports of sexual exploitation and trafficking of vulnerable girls and women in post disaster contexts (GGCA 2016) however, the literature review completed by the GGCA highlighted that many of the reports on this issue are “anecdotal” and there is a lack of data on this subject. The report states that:

“As the threats of trafficking and sexual exploitation are a pressing concern after disasters, there is a tremendous need for additional research to contextualize the nature and quantify the scale of these problems.”

GGCA, 2016, p.31

As climate change impacts food security, water security and energy security due to reduced resource availability, there are also indirect consequences for gender-based violence. It has been reported that many women may have to travel further for food, or fuel in sub-Saharan Africa. This puts them at increased risk of experiencing gender-based violence (Pearse 2017). This could be in the form of physical attacks, or expected sexual services in exchange for food or water (Sovacool and Dworkin 2012; Mosberg and Eriksen 2015; Gevers 2019; Vithanage 2021).

3.5.2. *Food Insecurity Implications for Women*

Inequality within household roles in Malawi often results in women having lower decision-making options and increased workloads which has been linked to food security issues and nutritional challenges (Hyder et al. 2007; Bezner Kerr et al. 2019). Research by the National Statistical Office (NSO) in Malawi concluded that women are at a higher risk of food insecurity (National Statistical Office (NSO) and ICF 2017; Bezner Kerr et al. 2019). This is partly due to social status but is also linked to high levels of sexual violence and domestic abuse, both forms of gender-based violence (Bezner Kerr et al., 2019). Young girls are particularly at risk to climate related gender-based violence, both directly and indirectly. Young girls are often forced into marriages due to parents struggling with climate change-induced food insecurity (Vithanage 2021). In addition to this, girls are often taken out of school early to engage in sex work in post-disaster, extreme weather event contexts (Vithanage 2021).

3.6. **Climate Change and Gender-based violence in Malawi**

3.6.1. *Efforts to end Gender-Based Violence in Malawi*

The Malawi Growth and Development Strategy II aims to improve gender inclusive strategies and address gender-based violence (GBV) awareness, support and strengthen data and research on the topic (Mellish et al. 2015). In addition to this, the Malawian Government have implemented the National Plan of Action to Combat Gender-based Violence in Malawi in which one of their priority areas is *further research, monitoring and evaluation on gender-based violence* (Mellish et al. 2015).

3.6.2. *Further Research Required on Gender-Based Violence in Malawi*

A literature review by Mellish, Settergren and Sapuwa (2015) found that most studies on gender-based violence in Malawi explore the issues amongst specific populations of people (i.e., various vulnerable groups) or explore gender-based violence and the knowledge and behaviour patterns that are linked to it. The findings highlight the extent of gender-based violence in Malawi and the authors underline the importance of strengthening and increasing the quantity of this research in Malawi to ensure that future policy is based on data (Mellish et al. 2015). This literature review found that there were few research studies and little literature

that focused on the connection between gender-based violence and climate change in Malawi specifically, highlighting the need for more research in this area.

3.6.3. Malawian Girls' Vulnerability to Gender-Based Violence

The literature review by Mellish, Settergren and Sapuwa (2015) highlighted a study by Leach et al. (2003) on the abuse of girls in Malawian schools, where it was reported that over 50% of the girls interviewed knew of another girl who had been approached by a teacher for sex. Similarly, 80% reported that they had been beaten by a teacher and 64% said they had issues with boys in school (this included boys touching them inappropriately) (Leach et al. 2003). Whilst this research was completed 18 years ago, it highlighted that gender-based violence can start at an early age and that young girls can be vulnerable to it in school. These experiences could act as a barrier to education and result in girls not completing school.

3.7. The Inter-relationship between Climate Change, Gender-Based Violence & Mental Health

The findings from this rapid review of literature has highlighted that there are many overlapping risk factors for both mental health and gender-based violence and that climate change can compound these issues. There was little research that explored or connected all three themes of climate change, gender-based violence and mental health together. Of the literature that was available on this relationship, the most common themes identified were the links between resource scarcity, an indirect consequence of climate change, the implications for mental health and gender-based violence.

However, provided below are the key findings that have been drawn from a synthesis of the existing published literature and are also based on observations by Whittenbury (2013); Bell and Folkerth (2016); Hayward and Ayeb-Karlsson (2021):

- Mental health and well-being are strongly associated with socio-economic status and one's gender; namely being a women or girl.
- Women who experience gender-based violence after extreme weather events are more likely to suffer from poor mental health or experience post-traumatic stress.
- Many women feel overloaded or overburdened with the demands placed on their time which are being exacerbated by climate change induced pressures.

- Climate change impacts can place a burden on family life which can increase vulnerability to GBV.
- Women are commonly responsible for the health and well-being of others, (spouses and children and elderly). Climate change can increase this burden and stress.
- Historically, violence against women is under-reported. Women often do not raise issues of violence directly, and instead it is recorded by support services observing their behaviour.
- The impacts of drought on women's health and well-being cannot be examined in isolation.
- There is a link between the rise in gender-based violence within the context of economic and social stress and slow-moving climate change impacts.
- There is a considerable lack of data relating to the relationship between post-disaster mental health and gender-based violence.

3.8. Knowledge Gaps and Priorities for Further Research

The impacts of climate change are distributed unevenly across society. Predominantly, it is the poorest and most vulnerable populations who are impacted disproportionately. This climate injustice also applies to climate change-related mental health and gender-based violence.

Whilst there is existing research that focuses on connections between psychological trauma and extreme weather events or disasters, the majority of this research is focused on high-income countries like the US and Australia and relates to hurricane and bushfire events (Charlson et al. 2021). There currently exists a significant knowledge gap on the direct and indirect impacts of climate change and mental health in developing countries. Specifically, there is a research gap on the indirect mental health consequences of climate change at the community level (Hayes et al., 2018). Of note by Brown et al. (2022) that although research into the connections between mental health and climate change is increasing somewhat, this research is not being translated into action and is still underrecognized by health practitioners and clinicians (Brown et al. 2022).

Finally, there is little research that explores the inter-relationship between climate change, mental health and gender-based violence in developing countries and even less so in Malawi, a country vulnerable to the impacts of climate change, has gender-based violence issues and

that has limited resources for mental health services. The literature highlights that these research areas have overlapping risk factors that could be compounded by climate change impacts. Further research into this relationship could provide knowledge that shapes climate change adaptation, health and wellbeing strategies in such a way as to ensure that responses to climate change do not increase the risk of women and girls experiencing mental health issues or gender-based violence.

3.9. Qualitative Field Work

3.9.1. Survey Questions: Participants background

The study conducted a short survey on climate change impacts, mental health, and gender-based violence among 213 women in 3 areas from traditional authority Mwankhunikira including Chinyolo, Mzokoto, Bumba, Mkombezi and 3 areas from traditional authority Chapinduka including Tcharo, Chipunga and Msuku communities.

In terms of marital status, 75% of the respondents were married, 12% were widowed, 9% were divorced and only 4% were single. Over half (53%) indicated completing primary education, and 46% - secondary education. The average participant had an average of 4 children (the median was also 4).

In terms of respondents' main daily activities, 88% indicated household work, followed by farming (86%), and small-scale business (61%). When asked about the activity on which they spend the most time on, 45% chose farming, followed by small-scale business (33%) and household work (19%).

When asked an open-ended question about their community, respondents mentioned lack of support from their husbands and partners (50%), loss of crops (45%), gender-based violence (44%), damaged houses (31%) and weather issues (23%) as the main problems at the local level. In terms of their own challenges faced on a daily basis, responses included financial hardship (51%), domestic issues including lack of support from husbands and partners (21%), lack of sufficient food (21%) and health issues (11%).

3.9.2. Interview Questions: Climate Change and Mental Health

- Local climate impacts and their effects on local livelihoods

Interviewees mentioned several climate change impacts affecting their communities, including heavy rains and flash floods, intense winds, and landslides. Over 92% of those surveyed thought that adverse weather events of this kind have intensified in recent years. Interview participants also spoke of the more indirect effects of weather anomalies, including infertile soils caused by nutrients being washed away by floods and run-off. Some mentioned deforestation in the surrounding hills as a factor exacerbating the intensity of floods and landslides in their local area.

When asked about the areas of their lives that had been impacted by changes in weather, survey respondents indicated experiencing stress (78%), being emotionally or psychologically impacted (72%), experiencing violence (64%), food insecurity (64%), loss of income or employment (53%), feeling sad or down (46%), damaged housing (42%), decreased crop yields (41%), sickness or health issues (38%), injury or loss of livestock (34%), and death of family and loved ones (23%).

Participants reported having lost key assets in the aftermath of these events, including entire houses and businesses being inundated or washed away by floods or swept away by landslides. Local damage to transport infrastructure also negatively affected some interviewees' ties with their church groups and children's access to local schools.

Crucially, interviewees also spoke about their crops and livestock being washed away by floods and the fact that fishing had also been affected by floods and heavy rains. Loss of crops due to weather and climate factors was an issue indicated by 76% of the 213 survey respondents. Participants also indicated that planning household consumption becomes difficult in this context. Lack of income from selling crops and livestock created a vicious cycle where households who had invested agricultural inputs into crops that were subsequently lost were unable to restart their production in the aftermath of the disaster. One of the related and compounding issues in this context were locally rising food prices caused by lower yields, which squeezed household budgets even further.

A clear result of these processes is growing poverty and food insecurity, and the resulting impacts on quality of life. Many interviewees spoke here about having to “start all over again” (P10), “going back to square one” (P41) and “moving backwards” (P141) in the aftermath of

flooding. One participant bemoaned losing an opportunity for a better life due to dropping out of school, suggesting that she “would have been somewhere [else now]” (P137). Others mentioned not being able to afford necessities such as soap.

- Adaptation strategies

Participants also spoke about several (mostly reactive) adaptation strategies, demonstrating local communities’ resilience and resourcefulness in times of crisis. During disasters such as floods, many families flee to neighbouring communities and find themselves reliant on help from their family, friends or even strangers. Some decide to move elsewhere permanently, though this is not possible in all cases. Families also tend to rely on social safety nets, both in terms of financial and material help, and emotional support provided by those around them. Several participants mentioned the assistance they received from their church and church group or, less frequently, from community Chiefs.

After disasters, both men and women are compelled to engage in “piece work”, most commonly as labourers in other people’s plots. However, participants noted that opportunities for making extra money this way are dwindling. This compels some to act on what they refer to as “negative ideas,” code for illicit activities including prostitution.

Another strategy was promptly replanting crops in the hope of producing enough harvest for domestic consumption, as well as planting vetiver grass to stabilize the soil. Finally, there was mention of cement barriers having been built to protect one of the communities from flooding. Opportunistic behaviour has also been mentioned in the interviews in this context; participants indicated that clientelistic and nepotistic relations within their communities which allowed some individuals to benefit from government relief efforts despite not being directly affected by disasters.

Finally, participants commonly employ a number of activities or attitudes that are more appropriately described as coping strategies. Some find solace in their faith, interpreting climate disasters and the resultant hardship as part of God’s plan. Relatedly, a few interviewees admitted having accepted their powerlessness in the face of these and other challenges while others, on the other hand, showed signs of optimism through phrases such as “things are getting better”.

- Effects of climate change on local people’s mental health

As mentioned above, the most immediate effect of adverse weather events on households is lack of income and decreased food security. Disasters also negatively affect school attendance and school performance among children. There have also been reports of household members losing their lives and getting injured during particularly acute events. In addition to this, observations from participants on how men experience the impacts of climate change differently to women were also discussed (Figure 1).

Men and gendered impacts of climate change

Interviews revealed a range of negative impacts of climate change that may affect men in a disproportionate manner, as well. First, men are usually considered the head of household who invest assets into productive activities that may be derailed by disasters. It is therefore their primary responsibility to look for an alternative source of income after a major disruptive event such as a flood and, if necessary, find a new place to live for their family members, including children, in an emergency.

In terms of the effects of climate events on men's mental health, interviewees spoke about men being 'disturbed' or paralysed due to not being able to provide for their families, with one interviewee referring to them as "sitting on their own" all the time (P73). Others mentioned issues such as depression, anxiety and shock or feeling terrified and helpless.

Figure 1 – Men and gendered impacts of climate change

The following section outlines the diverse ways in which climate disasters have affected the mental health of residents. Many of these, including anxiety and depression, stress, restlessness, and long-term trauma, can affect individuals regardless of their gender, age or occupation. However, this section will emphasize the lived experiences of women in this context.

The impacts of disasters on women's mental health are strongly related to the disproportionate burden they carry within the household due to the cultural division of labour. As in other places in rural Malawi and sub-Saharan Africa, women are seen as family caretakers. First, they are the ones responsible for ensuring sufficient food is available to feed all household members. Second, they are also tasked with taking care of children outside school. Third, they are expected to provide care to the sick and the injured.

These and other gendered responsibilities become even more burdensome in situations where women do not receive adequate support from their husbands - an issue that was reported by a high number of participants. Participants spoke about how men tend to be detached from daily household issues and are rarely concerned by the welfare of their children (P210, P19, P49).

Responses in this context suggested that women are expected to deal with day-to-day problems at the household level, while men more often focus on plans and investments for the future.

Men are also said to frequently maintain extra-marital relationships (usually with younger women who they may support financially using the household's budget), and not sharing information, for instance about how much money they made, with their wives. A few participants expressed disappointment about their husbands' attitudes and admitted to thinking about leaving them as a result. That said, there was a small number of participants who said men do help in the household.

- Effects of climate variability and disasters on women's mental health

Over 86% of the 213 surveyed women said that their mental health and wellbeing had been affected by the changes in weather. In this context, participants spoke of emotional pain (30%), feeling sorry, sad, or depressed (17%), worrying and restlessness (16%) and the mental health impacts related to their marriage (10%). Respondents also mentioned feeling devastated or traumatised (6%), stressed (6%), experiencing fear (5%), being traumatised by physical impacts (5%), crying (2%), and being confused and frustrated (2%). Over 5% admitted having suicidal thoughts. Only 2% (4 respondents) mentioned coping strategies, including "getting used" to these emotions.

Interviews with local women revealed the many ways in which their mental health becomes negatively affected, both directly and indirectly, by adverse climate events. The first and most widely cited effect was constant worrying about their children and the effects climate-induced food insecurity can have on them, both in the short- and long term. Mothers worried about disasters making it impossible to provide sufficient food to their children, leading to malnutrition and hunger, which would have a detrimental effect on their education, health and development, in general (see Figure 2 for more detail). Many responses here implied a sense of guilt among mothers about not being able to properly raise their children, an emotion described by one of the participants as "painful" (P196). There was also at least one case of a child losing their life to a landslide, traumatizing the mother who needed to continue caring for her other two children in the direct aftermath of the disaster. Another interviewee mentioned having to leave their 3-year-old child in someone else's care due to mental illness.

More generally, participants also pointed out that lack of sufficient food within the household can be "a problem for women," not only because of hunger and malnutrition, but also due to the increased level of tension within the household. Several interviewees underscored their

husbands' and partners' lack of commitment to ensuring enough food is available, with one participant describing how her husband tends to sneak out to his parents' place for dinner while his immediate family starves. These household-level tensions frequently result in physical and verbal abuse, discussed in greater detail in Section 3.9.3.

Local impacts of climate change on children

While children may not be concerned with climate variability and adverse weather events to the same extent as adults, interviewees consider them particularly vulnerable. Children are at a disproportionate risk of being directly harmed during disasters, for example during floods. In addition, participants were very concerned about their children's development, for a number of key reasons.

First, hunger and malnutrition due to food insecurity was by far the most common concern. Second, participants were acutely aware of the detrimental effects malnutrition and hunger have on education prospects and school performance. Reduced incomes often mean that households could not afford to pay school fees (either for all or some of their children) or buy appropriate clothes or school materials. Damage to infrastructure was also mentioned as a factor that leads to missing school. Third, the participants mentioned the link to hunger and malnutrition, and lower immunity and poor health.

On the other hand, children's mental health may also be affected by climate impacts, both directly and indirectly. In addition to developing trauma following disaster events, children were also said to be worrying about having enough food. A concern expressed by one participant was that some children could think that because they did not get enough food, their parents may not love them. Finally, children are not immune to social stigma. Lack of sufficient food in their household, according to one participant, can lead to being labelled as the "hungry kid" by other children, leading to further trauma.

Figure 2 - Local Impacts of climate change on children

A number of participants spoke of experiencing shock and trauma following floods and landslides, and indicated that they tend to relive these traumatic events every time there is a storm or it rains heavily. One participant indicated fainting during a flood, which she partially attributed to high blood pressure, while others reported suffering from insomnia caused by long-term trauma, illustrating the inseparable link between mental and physical health.

Other major factors affecting participants' mental health was social stigma, loss of (self) respect, and even being subjected to ridicule and insults by fellow community members. Avoiding exposure to antagonistic behaviour of this kind by others may push them further into social isolation. Interviewees also spoke about their loss of hope and pride, and feeling powerless in face of adversity.

Overall, there were several indications during these conversations that suggested some participants may be experiencing anxiety and depression due to both direct and indirect impacts of climate disasters. In this context, a few interviewees referred to their loss of inner peace as “heartache” (P200, P202, P51, P213, P36, P41, P98) or “not being free” (P144, P169, P202). Freedom, in this sense, can be interpreted as being able to live one’s life without constant worrying about the future of one’s family. In most extreme cases, the deep sense of powerlessness and resignation due to these and other issues outlined above, including lack of support from their husbands and loss of loved ones and material possessions, reportedly pushed some participants to contemplate taking their own lives.

When asked about the kind of help they received to deal with these issues, 58% of the surveyed participants answered that such assistance was not available in their community. The remaining 42% mentioned relying on the support by traditional authority/chiefs (15%), community members and relatives (13%), doctors and nurses (5%) NGOs (5%), and their church/pastor (4%).

Most participants said they would be very comfortable seeking support for their mental health (56%), with only 16% saying they would not be comfortable doing so, at all. When asked about who they would feel most comfortable talking to in this context, 59% mentioned family members, followed by their friends (48%), their husbands (44%), their pastor (41%), and a health professional (10%). Only 5% said they would not talk to anyone about their mental health issue(s).

3.9.3. Interview Questions: Climate Change and Gender-Based Violence

- Definitions and Experiences of Gender-Based Violence and Abuse

Gender-based violence (GBV) is broadly defined as “harmful acts directed at an individual based on their gender. It is rooted in gender inequality, the abuse of power and harmful norms” (UNHRC, 2022). Interviewees were free to talk about what they understood gender-based violence to be and so were not provided with a definition of the term. As such, all controlling and coercive behaviours, as well as emotional, physical and sexual abuse were considered as ‘violence’ as these behaviours are harmful and therefore in line with the definition guiding this project.

Of the participants that took part in the initial survey (213), 65% were aware of gender-based violence (GBV) occurring in their community and/or identified as being victims of GBV themselves. The experiences of GBV ranged in severity but it should be underscored that victims' experiences are complex and different for everyone regardless of perceived severity.

Gender-based violence (GBV) can present itself in various different forms and in this research project, the main forms discussed by participants were physical abuse (also referred to as domestic abuse or intimate partner violence in literature), verbal abuse and financial abuse. However, themes of social stigmatization, sexist division of labour, alcoholism, uneven distribution of aid as well as child abuse were also identified in this research.

- Verbal Abuse

Verbal abuse was a common theme identified amongst the majority of participants who were interviewed. Many participants spoke about the verbal abuse that they experienced in a candid way, suggesting that this is a normalised behaviour or something that is experienced often. Many of the examples provided by women revolved around their husbands being frustrated at them due to issues relating to lack of food or shortages of money. In addition to this, verbal abuse appeared to occur when a woman asked her husband for money or challenged his behaviour or questioned his activities. For example, one participant shared:

"... we see the husband spending the whole day drinking or maybe he went to find some piece work but when you ask for a little money for the maize mill, the responses you get are big words reaching to the extent of fighting." (P144)

In addition to this, some women shared examples of times where they had been disrespected with insults and sworn at for reasons out with their control, or for not providing food on time, suggesting that some men view women as only purpose to serve their husbands. For example:

"...he insulted me calling me a prostitute. When I haven't cooked nsima on time and he is back early, he will start swearing while he eats and sometimes he could leave the house without eating. Yes. That's the abuse I experience" (P157)

The responses from participant suggested that verbal abuse often goes hand in hand, or can lead to other forms of abuse.

- Physical Abuse

Of the participants surveyed, 44 women specifically mentioned incidents of physical abuse taking place, comments like “husbands beat their wives” were stated frequently when participants were asked about gender-based violence occurring in their community. Furthermore, 24 participants disclosed that they had been victims of physical abuse personally (P4, P18, P19, P29, P49, P60, P61, P63, P64, P68, P88, P91, P98, P107, P116, P139, P144, P183, P190, P193, P196, P198, P200 and P202). The actual number of those who have experienced physical abuse could be higher as participants shared this information voluntarily and were not directly asked at the survey stage to avoid triggering trauma and to prioritise participant safety.

Of those that were interviewed, several participants explained that physical abuse often originates from arguments about money or is related to their husband’s alcohol consumption. Further examples of this are discussed in later sections.

Some participants shared devastating examples of the physical abuse and extreme violent behaviour they had endured over the years. For example:

“...there are women who have been beaten so much, I am one of them... I was beaten. If you can see my face here, there is a scar. These are teeth of my husband. I was bitten [for] a vague reason.” (P144)

Gender-based violence (GBV) is not limited to occurring only within a marriage as GBV can also be take place within a wider family network or community, especially when women are viewed as lesser than men and unequal within society. Some of the women that were interviewed shared their experience of physical abuse experienced within the community and wider family network:

“Let me start by explaining GBV cases in my family I was wounded by my father in-law with a knife and the wound took almost 2 years to heal. Community violence are there because we see our friends abused, rape and defilement cases are among others.” (P18)

“I have experienced violence before and I have met tough times both in the marriage and community leaders” (P144)

- Financial Abuse

Of the participants interviewed, many discussed situations of financial control or abuse. Ultimately, this is because many women are reliant on their husbands for access to money and women have less opportunity to support themselves or leave a marriage without the social stigma associated with this. Having one partner control finances in a household is not considered financial abuse when it is agreed by both partners. However, challenges arise for women who do not want to conform to this structure. Societal and cultural pressures result in there being few alternatives or opportunities for women, making it difficult to challenge this construct or to pursue her own lifestyle and earn her own money in a culture that is designed to ensure men's independence.

As the societal expectation in Malawi is for men to provide financially for the family, many women viewed any financial decisions made by their husband that limits their financial freedom or independence as a form of gender-based violence. For example, one participant explained:

I personally faced GBV issues... There was a time when my husband could not help me... that was a great abuse faced because men are supposed to find and provide basic needs to the family (P12).

Many participants expressed their frustration that they have limited or no control or input with regards to their own finances. This a form of financial abuse as women tend to contribute to both paid (e.g., farming, selling produce, or piece work) and unpaid (caregiving) work that benefits the whole family. One participant highlighted that *“women do not benefit from what they grow because their husbands use all the money”* (P60).

Despite their lack of control over family budgets, women are still expected to fulfil all household responsibilities, even when finances are limited or when husbands fail to provide. Some women told researchers that this can lead to household tensions and in some instances, physical violence.

"When he has money and I have asked for money maybe to buy relish, he says that he doesn't have money. He doesn't respond anything, he just leaves. Maybe that day I decide not to look for relish since he has failed to give me money for relish. Later when he comes home and asks "where is my food?" I respond "I failed to cook because there was not relish and you didn't give me money to buy one". Then that becomes a reason and sometimes you get beaten." (P139).

3.9.4. Drivers of Gender-Based Violence

- Poverty

It is important to note that gender-based violence can happen regardless of wealth or social status and as such, poverty is not a reliable predictor of violence. That said, financial; hardship or poverty was a common theme that appeared to drive various forms of violence, most notably financial abuse and physical abuse. This suggests that there is an indirect link between poverty and gender-based violence which complements findings from other studies. This research suggests that stress related to the household's financial hardship can be a trigger for violence. Coupled with this pressure are the societal and cultural norms that can make it more difficult for women to leave violent or controlling situations.

- Societal and Cultural Norms

Many of the participants who volunteered to be interviewed explained that men are often responsible for providing for the family financially. As such, it is often the norm or expectation for men to take control of household finances and in some situations, make financial decisions without input from their wives.

However, this unequal power dynamic between women and men can lead to tensions that stem from financial pressures, especially as women are often primarily involved in caregiving and household responsibilities, which depend on the household budget. Therefore, women often rely on access to money from their husband. In addition to the household responsibilities, most women in rural areas of Malawi are involved in farming as well as the selling of produce at local markets, yet are often excluded from financial decisions relating to farming inputs or outputs. Without any significant decision-making input into how household budgets are managed, even when contributing financially, women can often be left with a reduced capacity

to cope with financial pressures especially during times of financial hardship. One participant explained:

"People say that the head of the family is the husband and when he is not doing his job, we just don't know what to do to support our children" (P196).

- Extramarital Affairs and Multiple Spouses

Many participants spoke openly about their financial difficulties and some attributed the cause of their financial stress to their husbands having multiple wives or extramarital affairs.

For example, one participant said:

"Most men in our area do not love and support their children, they expect their wives to look after them while they spend their money on other spouses" (P184).

Some participants also shared that some men would openly behave in this way, letting their wife know that they are spending household finance on other partners or spouses.

"my husband is having an affair...the other women is HIV positive... [my] husband says the wealth [we] have gathered together will be for the other women" (P89)

- Alcohol Consumption

Alcohol consumption was also a common theme discussed by participants who shared that they had also been physically abused by an intoxicated partner or male family member. This suggests that the pressures of climate change on crop yields and ultimately household finances could result in increased triggers or an intensification of violence for those that already experience these issues. Some participants shared their experiences below:

"There is also another violence happening inside the house relating to making love. Each person has different feelings. Sometimes I might be angry because maybe he had beaten me when he was going to drink beer. When he is back, he wishes to make love and I say no. he will start to beat me because I have said no. people out there will say I am beaten because I didn't give him food but I personally I know the reason is that I denied him in bed." (P139)

"There are other men who do not farm, others just spend their time drinking beer while the women is left alone on the farm to do everything on her own. So we tell them this is not the right thing to do. There are also some men who when they harvest steal those very harvest and sell them so as to just drink beer." (P157)

3.9.5. Impacts of Gender-Based Violence

The impacts of gender-based violence (GBV) on a woman's life are far reaching and difficult to quantify. However, some of the participants shared how some of their experiences of GBV had impacted their life.

- Lack of Decision Making

A general lack of decision making due to a lack of financial control was a common theme identified that had wide ranging impacts. One of the consequences of this was that some women mentioned having to leave school early or pursue further education due to their husband's expectation of a wife's responsibilities. For example, one participant shared: *"I once try telling him that I should return to school, he said there is no money. My parents said I am willing to continue with school, they will be able to support. But this is the problem now because my husband said I should open a salon."* (P137).

- Stigmatization

Locally, not being able to feed their family is seen as shameful, with several women speaking about their fear of being labelled as someone who has to ask or beg for food. This social stigma associated with being unable to provide for their family can contribute to mental health issues of anxiety or depression, discussed previously in Section 3.9.2.

- Limiting Aspirations

As previously mentioned in Section 3.9.3., many participants expressed concerns relating to their children repeating abusive behaviours that they witnessed growing up. In addition to this, witnessing abuse in any form within a marriage or witnessing the normalisation of abuse within culture or society. Having no clear support pathways for victims, being not taken seriously by police or community authority figures, having no justice for victims or no consequences for perpetrators and/or consequences for women for speaking out against violence could result in girls and young women growing up to accept abusive or violent behaviours as they perceive them to be normal and standard for women. This could be limiting hopes and aspirations for girls and young women if they do not see alternative examples within society.

- Coping Strategies

Whilst there were various coping or adaptation strategies identified for coping with climate change impacts, there were few coping strategies mentioned by participants who had experienced gender-based violence. The main one identified, was in relation to having financial independence, with many participants saying things like *“I should have money to do my own business because having my own money from business, I will be assisted in my personal needs”* (P139) and *“If I can have my own money I can’t even complain about my husband because I will be doing what I think is right”* (P3).

3.9.6. Linking Climate Change and Gender-Based Violence

Of those interviewed, 12 participants agreed that there was a connection between climate change and gender-based violence, whilst only 3 participants stating the opposite.

Findings from this research, suggest that climate change is an indirect driver of gender-based violence (GBV). Whilst issues of GBV already existed before climate change, it is clear that the impacts of climate change are compounding existing issues of violence, as well as

increasing the likelihood of new instances of violence. The main reasons for this are that the impacts of climate change are resulting in an increase in food insecurity, poverty and stress, all of which are known to be existing drivers of GBV. Climate change is intensifying and exacerbating these existing issues that act as drivers for GBV. In addition to this, extreme weather events like flooding are known to increase risk and vulnerability for women to experiencing various forms of gender-based violence.

- Food insecurity

Farming is the main source of household income in rural Malawi. As many as 87% of participants surveyed stated that farming was one of the main activities that they were involved in, (followed by selling produce, small-scale business and household tasks). It is widely reported that countries vulnerable to climate change, like Malawi, are prone to food insecurity and financial hardship that is expected to worsen as the effects of climate change intensify. Climate change directly impacts crop yields, contributing to food insecurity and stretching household budgets during times of extreme weather events, sub-acute or chronic climate change hazards.

Some participants explained:

"Remember, a hungry lion is an angry lion" (P18)

"Because of climate change, GBV issues are increasing at an alarming rate because people do not have food... So, hunger is also another contributing factor to violence and abuse." (P51)

- Extreme Weather Events

Extreme weather events, like flooding or droughts, which Malawi is prone to and which are occurring more frequently as well as increasing in severity, are contributing to increasing women's vulnerability to experiencing gender-based violence (GBV). Whilst incidents of GBV were present before the impacts of climate change, many participants believed that it exacerbates existing issues.

“Despite floods happening violence and abuse are already common in our community.... Yes, weather issues make violence and abuse in our community worse...” (P213).

In addition to this, some women shared that they knew that “some husband left their wives and children because everything had been destroyed by floods” (P210). This is something that some women believe to be a form of abuse as due to cultural norms, this leaves them without a stable income and has social stigma associated with it.

3.9.7. Participant Recommendations

The interviewed participants offered a number of potential solutions they saw as necessary for safeguarding their mental health and preventing various forms of gender-based violence.

- Financial Support

Close to a half indicated a strong need for capital to launch or expand their small businesses and farming activities. Several interviewees explained further that investing in women’s income-generating activities can make them more financially independent from their husbands. This rationale stems from the widespread recognition among participants that men not only frequently fail to secure sufficient income for the household but also withhold funds for their own expenses. In the absence of their husbands’ support, women wish to generate the necessary income themselves. An alternative to working for themselves is often offering paid domestic or agricultural labour, which returns little money, increases dependence on the wealthier members of the community, and is very precarious and insecure, in general.

Relatedly, several interviewees mentioned the need to ensure external support in terms of direct payments, ensuring water access, support for school fees, food aid, and offering loans, for example through local village banks.

This emphasis on financial and material help reflects the widely accepted view among those interviewed that poverty and food insecurity (both of which are exacerbated by climate change impacts) that lead to fighting, abuse and violence, as well as their impacts on mental health at the household level. And while they are not the only drivers of these issues - alcoholism and masculinist cultural norms being other examples - participants saw food security in particular

as a precipitating factor for gender-based violence. One interviewee used a metaphor to illustrate this by saying “Remember, a hungry lion is an angry lion” (P18).

- Counselling and Mental Health Support

In addition to financial and material measures to combat poverty and food insecurity, several participants saw a need for counselling at the individual and household level. This included support for the victims of violence, marriage and family counselling, and mental health support. The fact that all 46 interviewees elected to attend an individual counselling session with a mental health nurse after their conversation with the research team member exemplifies how urgent the need for providing this kind of support is in the studied areas.

- Support for Children

A number of suggestions offered by the participants pertained specifically to children. Interviewees once again stressed the need to ensure sufficient food is available to children, and to shelter them from witnessing or experiencing violence in the household. This is seen as a parental responsibility expressed through love and adequate care, something that interviewees thought required cooperation between both parents. Another suggestion included listening to the children’s needs and talking to them about difficult issues such as domestic abuse honestly.

- Education

Relatedly, it was suggested that young people and adults alike should be offered civic education on this issue, with the hope this could help prevent abusive behaviour taking place in their homes and would stop young people replicating this behaviour as parents and spouses in the future.

- Additional Recommendations

Beyond these key recommendations, other less frequent suggestions included planting more trees to limit local flooding, and providing capacity building and training on dealing with climate change impacts. Regarding men, one interviewee stressed that their activities should also be supported, while another underscored the need to stop men from drinking excessively.

3.10. Stakeholder Mapping

Institutions and organisations identified as key stakeholders in Malawi involved in climate change, climate justice, mental health, gender-based violence, social resiliency and recovery work were identified using an online search.

Some of these are provided in Annex D. The team were limited in scope is being able to identify specific uptake pathways that are used by these organisations due to COVID restrictions. This knowledge would have been useful in furthering discussion on what more needs to be done to support women facing mental health challenges. Nevertheless, a range of these stakeholders were invited to the end of project workshop where these perspectives were addressed.

3.11. Participatory Design of Support Services

An end of project workshop was conducted in a hybrid style in Lilongwe with 2 main objectives. First, to present the project main findings and second to explore potential solutions to the burgeoning mental health crisis.

A full workshop report is provided in Annex E with the full running order and summary of the feedback, discussions as well as recommendations. In terms of recommendations for designing support services a number of recommendations were made. Three main aspects were highlighted:

- Convergence

The importance of building on existing support structures in Malawi; from community based, women's groups, Govt Departments, Councillors, CSOs, Grass roots communities and others to explore specifically issues around:

- i. Management and preventative approaches to mental health crisis
- ii. Referral systems
- iii. Capacity building of experts
- iv. Building resilience of communities

- Research

More research is required to expand and deepen our understanding of the scale and magnitude of the issues in Malawi. There is a Climate Change and Mental Health Core Team which comprises the Ministry of Health teams as well as other government departments and academia; they would like to be part of shaping this future research and look forward to future collaboration.

- Advocacy

Advocate for collaboration and mainstreaming of activities with Civil Society Organisations (CSO) in their areas of focus and education on mental health, GBV, climate change and justice.

5. CONCLUDING REMARKS – CLIMATE JUSTICE AND HUMAN RIGHT TO A DECENT QUALITY OF LIFE

The evidence provided throughout this research gives clear indication that climate change is impacting women putting them more at risk than others. Our evidence is compelling and it highlights a number of points:

- There are many reports of gender-based violence relating to climate change but most remain anecdotal and there is an overall lack of evidence and data in this regard.
- Disruption to food and water supplies due to climate changes puts women at more risk of gender-based violence.
- Indirect consequences of climate change include women having to travel further for food, water or energy resources and places women in Malawi at increased risk of experiencing gender-based violence.
- Depression is a mental health issue often associated with post climate change disasters relating to loss of home, place, livelihood or loved one. Mental health issues are more commonly associated with slow moving climate change impacts. These are being experienced by women in Malawi.
- Post-traumatic stress disorders are often linked to both fast and slow moving climate change disasters. These are being experienced by women in Malawi.

We understand that the climate crisis is compounding structural inequality leading to a burgeoning gap in climate inequality and puts these points into context.

Human Rights and Climate Justice

There is no doubt that climate change is impacting the poorest and most vulnerable in society, they are suffering the most and it is those who have contributed little if anything at all to the climate crisis.

Recently Christiana Figueres noted that “a healthy environment is an undeniable human right. Our very survival depends on having food, water, air upon which our lives depend”. At the same time the UN High Commissioner for Human Rights, Michelle Bachelet called on States to take bold actions to give prompt and real effect to the right to a healthy environment, following a UN Human Rights Council’s landmark decision. On the 8th October 2021 the following was declared:

“The Human Rights Council today recognised for the first time that having a clean, healthy and sustainable environment is indeed a human right, in its resolution 48/13. The Council called on States to work together, and with other partners, to implement this newly recognized right. At the same time, through a second resolution (48/14), the Council also increased its focus on the human rights impacts of climate change by establishing a Special Rapporteur dedicated specifically to that issue”.

With this announcement, the focus, attention and need to address the climate justice aspects of achieving global health outcomes is more prominent than before. To arrive at that requires diving deep into what we mean by climate justice in the context of promoting and protecting health for ALL. The announcement by The Human Rights Council is indeed significant and could change the global landscape on climate and health.

Antonio Guterres UN Secretary General said “combine force now and we can avert a climate catastrophe”. This is also a crisis for humanity. The safety, health and wellbeing of people especially the most vulnerable is critical. The solution to addressing the burgeoning health crisis lies in sectors working together.

This project has been pivotal in placing much emphasis on gathering evidence and data on the mental health & GBV crisis facing women in select areas of Northern Malawi. We have spent time looking at potential solutions building on existing frameworks and models. Including aspects of climate justice and human rights into processes and application will be important in helping women to realise their Human Rights. The basic elements of procedural justice, distributive justice, intergenerational justice and restorative justice that collectively address inclusivity, representation, voice and participation must be embedded into future design of policy and practice from grass roots to national levels.

Project Partners



**Mary Robinson Centre for
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**Mzuzu University,
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**Life Concern,
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ANNEX A1 Template for Survey

Community Survey Questions

Thank you for agreeing to take part in this survey for a research project by Glasgow Caledonian University in Scotland and Mzuzu University in Malawi. My name is ----- and I am a research assistant working on this project. I have provided you with an information form and consent form which states that you are free to leave or stop this survey at any time without giving reason. Please let me know if you have any questions or if you would like to stop this survey and all information you have provided will be destroyed.

This survey has been approved by both Glasgow Caledonian University's board of ethics and Mzuzu University's board of ethics. If you have any questions or concerns you can contact Mzuzu University's board of ethics MZUNIREC on ur@mzuni.ac.mw.

All information you provide will be anonymised and any contact information you provide will only be used for the purposes of arranging a follow up interview if you wish to do so.

Participant Number:

Name:

Email:

Phone Number:

Signature:

1(a) Thank you for agreeing to take part in this survey, to start could you please tell me about the area that you are from? I would be interested to know about what your region and community is like?

1(b) Could you now tell me about your daily activities? Could you describe the different activities that you do in each day?

1(c) From the following options could you please tell me what best describes your activities?
You can select more than one option:

- Small-scale business

- Farming
- Fishing
- Other employment
- Household work
- Other

1(d) What activity do you spend the most amount of time on?

2. Please could you describe the challenges that you have in your daily life.

3(a) Are you married?

- Married
- Single
- Divorced
- Widowed
- Prefer not to say

3(b) Do you have children? If yes, how many children do you have?

- No
- Declined to answer
- Yes – how many?

3(c) What is the highest level of education that you have?

- Primary School
- Secondary School
- College or University
- Apprenticeship
- Prefer not to say

This next section will ask you about your experiences of Climate Change.

When we talk about climate change we mean changes in weather, like unpredictable weather patterns and extreme weather events. For example, this includes incidents of flooding or droughts.

4(a) Have you been impacted by any extreme weather events or changes in weather in this area?

- Yes
- No

4(b) Can you please describe these extreme weather events or changes in weather?

5(a) Have these changes gotten worse or more unpredictable in recent years?

- Yes
- No

5(b) Are there any years that you can remember that were particularly difficult with changes to the weather? Can you tell me what years and why?

6(a) From the following list, what areas of your life have been impacted by these changes in the weather that you have talked about?

- Housing damaged
- Livestock injured or lost
- Crop yields lower
- Loss of Income or job
- Food insecurity
- Personally, went without food so that family could eat
- Lack of affordable or available energy resources (firewood / charcoal / gas etc).
- Emotionally or psychologically
- Sickness
- Loss of family or loved ones
- Low mood (feeling sad or down)
- Stress
- Experienced violence
- None of the above
- Other (please tell the research assistant what this impact is).

6(b) other answer

This next section will focus on health and ask you about your experiences physical and mental health in relation to climate change.

By physical health, we are referring to your body's health and wellbeing. Good physical health would be being free from disease, or any ailment, when the body is functioning well. For example, an issue relating to physical health could be a broken bone, breathing difficulty or any disease that you suffer from like malaria.

By mental health, we are referring to your mental wellbeing and emotional state. For example, this could include a wide range of experiences like feeling sad, feeling stressed, feeling anxious or worried and/or any mental health disorder.

7(a) Has your physical health ever been affected by extreme weather events or unpredictable weather?

- Yes
- No
- Unsure

7(b) Could you please tell me about this in more detail?

8(a) Would you say that your mental health or well-being has ever been affected by these changes in the weather that you have told me about previously?

- Yes
- No
- Unsure

(b) Could you please tell me how you felt during this time and if there was a particular experience that caused you to feel this way?

9(a) If you were feeling like you had poor or low mental health, who would you feel most comfortable talking to this about?

- Husband
- Family members
- Friends
- Pastor
- Health Professional (Doctor / Nurse)
- I would not talk to anyone about this

9(b) How easy is it to access support for mental health in this area? Can you explain this?

9(c) On a scale of 1-5 how comfortable would you feel about seeking support for your mental health? (1 = not comfortable at all. 5 = very comfortable and able to seek support).

This next section will focus on gender and ask you about your experiences of climate change from the point of view of a woman. If there are any questions that you are not comfortable answering, please let me know and I can skip the question. Alternatively, you can stop the survey at any time.

10(a) Have you heard of there being any incidents of violence against women happening in your area that might be related to changes in weather that you mentioned previously (like food insecurity, loss of income, damaged housing etc.)?

10(b). If you answered yes to the above question, would you feel comfortable to arrange a follow up interview to talk about violence against women (gender-based violence) and climate change? (The Research Assistant will provide information on where and when the interview will take place)

ANNEX A2 Template for the Interviews

Interview questions

Participant number:

Participant initials:

Location:

I. Participant background & Climate change impacts

1. Please tell me about yourself [your family, your work, your daily activities, etc.].
2. During last month's survey, we asked you about local weather problems.

You told us: "my house was damaged and crops were washed away by the landslides, even now I find it hard to find food."

- a. How do these weather problems affect women in this community? How about children? How do they affect men? Can you provide any examples of these? [responses likely to be about livelihoods/incomes/crops]
- b. How did these events/issues make you feel when they happened? How do you feel about them now that some time has passed? [mental health during vs. following disasters/weather issues]
- c. Would you say that these events make your mental health worse, or do they not have an impact? [please make sure not to suggest the answer, and feel free to explain mental health in other words - we want to make sure it's not about incomes/livelihoods]

II. Gender-based violence and abuse within the community

3. Last month during the surveys, we asked if you were aware of any gender-based violence or other kinds of abusive behavior in the community.
4. Would you say that these weather issues that we discussed earlier make violence and abuse in this community worse and/or more frequent? Can you provide an example of how and why this happens? Are children also experiencing this kind of violence and abuse? [important to ensure participants understand we're not asking about specific instances with names etc., but about the general trends]
5. Given these issues, what in your opinion would help improve the mental health of women here? And what would help improve the mental health of local children?
6. Given these issues, how do you think the issue of gender-based violence against women and/or children should be addressed, and what kind of help would be needed?

III. Gender-based violence and abuse experienced by the participant

7. During the survey, you mentioned that you have experienced this kind of violence, yourself. If you experience or have experienced this kind of violence, personally,

could you please tell me a little more about it? [individual-level, participant does not have to answer if they are visibly uncomfortable],

- a. How is this affecting your mental health? How does it make you feel?
- b. What, in your opinion, would help improve your own mental health, overall? [If the recommendation is vague, please ask to specify - it can be anything.]
- c. What kind of support would help with the violence and abuse you've experienced? [make sure the participant understands we cannot provide any direct/material assistance, ourselves]

IV. Post-interview Mental Health Support questions

8. We have a mental health nurse travelling with us. She is staying nearby. Would you like to have a counselling session with her today? We could arrange transport there and back for you.
9. If you would like to have a session but you're unavailable today, we can arrange for the nurse to give you a call and schedule a telephone session or in-person session in your area. Would you be interested in that? If so, do I have your permission to share your name and number with the nurse? These will be kept strictly confidential.

Annex B

Table A - Structural Coding NVivo 12 Codebook

Name	Description	Files	References
1. Background Detail	Participants were asked to tell the interviewer about themselves.	45	56
Daily Activities	Participants were asked about the daily tasks and responsibilities that they complete in a day	41	50
2. Weather or Climate Change Impacts		46	236
How do these weather problems affect children	Participants were asked to expand on what ways these weather problems impact children in the community.	42	54
How do weather problems affect women in this community	Participants were asked to expand on how weather problems impact women in the community, following on from their answers in the initial survey.	44	73
Impacts for finance	Participants were asked how the weather issues impacted finances.	8	11
Impacts for men	Participants were asked to expand on what ways these weather problems impact men in the community.	44	44
Impacts on wellbeing or mental health	How do these weather impacts participant mental health or wellbeing	46	125
3. Gender-based violence		46	278
Gender-based violence issues in the community	Participants were asked to expand on gender-based violence issues in the community from their initial survey responses.	44	98
Alcohol	GBV and Alcohol responses	27	36
Consequences of GBV	Consequences of GBV, including leaving marriage, mental health impacts etc.	23	34
Financial abuse	Mentions of financial control and abuse.	30	44
Physical abuse	Mentions of physical abuse.	21	31
Sexual abuse	Mentions of sexual abuse.	5	6
Verbal abuse	Mentions of verbal abuse.	14	16
How should GBV issues be improved	Participants were asked in what help should be provided to address GBV issues.	44	98
Impacts of GBV on mental health	Participants were asked to explain if GBV had impacted their mental health.	34	51
Impacts on Children	Participants were asked if GBV they experienced impacted children.	34	53
Personal experience of GBV	Participants were asked to share their personal experience of GBV if they felt comfortable.	33	56

4. Mental Health	Participants were asked about their mental health or wellbeing. Mental health definitions were not provided so that participants were able to self-define what classifies as mental health issues to them personally.	35	55
Children's mental health	Mentions of children's mental health.	13	15
How should Mental health be improved	Participants were asked in what help should be provided to address mental health issues.	30	40
Mental health issues in the community	Participants were asked about mental health issues at the community level.	0	0
Personal experience of MH	Participants were asked to share their experiences of mental health if they felt comfortable.	4	4
5. Connections between Climate Change, GBV and MH	Participants were asked if they felt that there were any connections to climate change, gender based-violence and mental health.	32	47

Annex C

Table B – An outline of the main ethical considerations

1.	<p>All participants will be fully informed that participation is entirely voluntary and that confidentiality and anonymity are assured; that recruitment processes and data collection will be structured around their community and family commitments without infringing on these; that they are free to skip a question(s) or withdraw participation from the study if they wish with no repercussion, that data collection, analysis and publication will be carried out on the assumption of anonymity and confidentiality.</p>
2.	<p>For the objective 1 Field Work, the in-country Officers at project partner Life Concern Organisation are highly trained and experienced in following strict research ethics of interacting with such population types as that identified for this study, and in particular are highly experienced in working with GBV survivors and will adhere to best practice in recruitment, data collection and pastoral care, including sensitivity to re-triggering trauma. The Life Concern Organisation staff will be vigilant for signs of distress or discomfort and take necessary action such as discontinuing participation and/or referring the individual directly to appropriate pastoral care plan options. A full two-tiered pastoral support plan has been put in place during and beyond the life of the project by the Malawi based project partners (for more detail refer to attached ethical approval application by Mzuzu University FAO Mzuzu University Ethics committee). This includes professional mental health support from senior mental health nurses and counsellors experienced in working with those who have experienced GBV, and community-based care from religious pastors and faith groups. Participants will be made fully aware of routes and access to support during onboarding and repeated again following completion of their participation.</p>
3.	<p>For Objective 2 Stakeholder Mapping Exercise, participants will be key stakeholders involved in climate change, climate justice, mental health, gender-based violence, social resiliency and recovery work in Malawi. As such, stakeholders will be members of organisations/groups whose mission and activities are related to the aims of this project, and will be asked to describe their experiences, opinion and insights on practice, policy, initiatives etc. – rather than provide personal detail. Again, participants will be assured that their data will be confidential and anonymised, and reminded of the voluntary nature of their participation and rights to skip questions they do not feel comfortable answering and/or withdraw from the study if they wish.</p>

Annex D

STAKEHOLDER MAPPING

Introduction

The key stakeholders in the climate change, gender based violence and mental health project are the government ministries, the nongovernmental organizations (NGO) and the private sector. Among these there is ministry of health, ministry of natural resources, ministry of agriculture, department of disaster, department of social welfare, the district council, chiefs and other traditional leaders. These ministries and departments work with their individual goals but at the end target the same community person. The project team were able to provide insights into this range of government departments, it was not possible to get full insight into the other institutions and organisations due to Covid restrictions preventing face to face meetings, discussions and workshops as well as limited information that is available online.

Ministry of Health

The ministry of health is the key policy maker for the mental health services in Malawi. They govern the establishment and operations of mental health services in Malawi. The mental health facilities in Malawi are the Zomba mental hospital which has the biggest admission facility located in Zomba city. This is the major government mental health facility in the country. It can admit up to 800 clients in its wards. Clients who get admitted here come from across the country. Apart from zomba mental hospital, the government policy allows each district hospital across the country to have 2% of its bed capacity to admit clients with mental health problems. As such the government has deployed mental health nurses and clinical officers across all government health facilities to look after the mentally ill clients. Mental health has also been integrated into primary health care (PHC). Hence as the health teams go to various communities doing outreach services, there is a mental health nurse, and a counsellor in the team who looks after mentally ill clients in the community.

Within the providers of mental health services is St John of God community services which is funded by the hospitaller Order in Ireland. St John of God is under the CHAM facilities and it has two branches. The main branch is in Mzuzu and they have another branch in Lilongwe. Apart from providing mental health services in Malawi, they also have a training

college which trains mental health nurses, clinical officers and psychosocial counselors. With its headquarters in Mzuzu, it serves as the main referral hospital for the north and central part of Malawi.

Among the staff working in the mental health department are the psychiatrists, the mental health and psychiatric nurse, the psychosocial counsellors, the mental health clinical officers, the psychologists, the occupational therapists and rehabilitation officers.

Ministry of Natural Resources

The ministry of natural resources is the main policy maker for mines and natural resources in the country. All climate change issues are under their jurisdiction. They provide guidance on the protection of natural resources. Their main offices are in Lilongwe. However they have regional offices in all the regions of the country and they also have branches in all the districts of the country.

Ministry of Gender and Children's welfare

This ministry is responsible for all the issues bordering gender which includes Gender based violence. It has its headquarters in Lilongwe. However, it also has regional offices in all the regions of the country and also it has district offices in all the districts of the country. It works hand in hand with some other NGO's like the gender coordinating network. Its mandate is to make sure women and children are not victimized in the country. It therefore helps to provide policy direction so that gender based violence is reduced in the country.

Department of Disaster Preparedness

The department is involved in the preparation and management of unforeseen circumstances such as disasters that may be caused by climate change issues. This department has its headquarters in Lilongwe and the Capitol Hill. However, it has branches in all the districts in the country. They work hand in hand with other NGOs like the Malawi Red cross society and other government departments like health. They are the first group of people to come to the place where a disaster has happened.

Department of Social Welfare

The department of social welfare is involved in looking after those who seem to be destitute. When a disaster has occurred, several people become homeless. It is the department of social welfare who look into how social services can be provided to such people. Their mandate is to help those in need. They also work hand in hand with other government departments and NGOs like the Malawi red cross.

Rumphi District Council

The district council which operates under the ministry of local government, governs all activities done in the district. It is headed by the district commissioner and has a steering committee known as the district executive committee (DEC). All activities which are done in a district are under the control of the district commissioner. As such the gender based issues, climate change issues and mental health services are under his control.

Annex E

A Determination of the Inter-Relationship between Climate Change, Gender Based Violence, Mental Health and Climate Justice for Progressive Social Change in Malawi

End-of-Project Workshop

Venue: Golden Peacock Hotel

Lilongwe

19th May, 2022

Funded by the Scottish Government Climate Justice Fund

The project A Determination of the Inter-relationship between Climate Change, Gender-Based Violence, Mental Health and Climate Justice for Progressive Social Change in Malawi end project workshop was conducted on 19th May, 2022 at Golden Peacock in Lilongwe. The project implementation was supported with funding from Scottish Government through Glasgow Caledonian University (GCU) – UK and the activities were implemented in partnership with Mzuzu University (MZUNI) and Life Concern Organisation (LICO) – Malawi. End of the project workshop had called for the participation of different stakeholders who have interest on Climate Change, Gender Based Violence (GBV) and Mental Health issues in Malawi and across borders, whereas GCU project team attended virtually. Stakeholders that attended the project meeting were categorised into Government, NGOs and Faith Based Organisations, and these include;

1. Director of Research – Mzuzu University
2. Assistant Director of Mental health Department
3. MaSP Representatives

4. St John of God Hospitaller Representative
5. Ministry of Gender Representative
6. The media (Timveni, MBC, Zodiac and National Publication Limited – NPL)

Project team attended the workshop – Malawi

All project team members were present;

1. Peter Gondwe (ED – LICO)
2. Dr. Griffin Baxter Chirambo (in country PI – MZUNI)
3. Kingston Chirwa (RA – LICO)
4. Deborah Gondwe (RA – LICO)
5. Blessings Matola (RA – MZUNI)
6. Christina Mkandawire (RA – MZUNI)
7. Kenneth Mkandawire (PM – LICO – online)
8. Nelson Kondowe (M&E – LICO – online)
9. Wanangwa Kanyenda (FO – LICO – online)

GCU attended virtually

10. Professor Tahseen Jafry
11. Dr. Michael Mikulewicz, Senior Research Fellow
12. Jemina Gordon-Duff, (Deputy Director, International Climate Change, Scottish Government)

The research project was led by the Centre for Climate Justice Glasgow Caledonian University in partnership with Mzuzu University (MZUNI) and Life Concern Organisation (LICO) as implementing partners. The meeting started at exactly 09:15 AM up to 12:30 PM Central Africa Time (CAT) and opened with the word of prayer from Blessing Matola (RA – MZUNI).

Professor Wells Singini, Director of research at MZUNI gave the welcoming remarks and officially opened the workshop which proceeded with Professor Tahseen Jafry, Director of The Centre for Climate Justice Glasgow Caledonian University making her remarks and also introduced the GCU team. Professor Wells Singini thanked the Scottish Government for financial support to this project and many other projects in Malawi. He also expressed his gratitude for GCU to choose MZUNI and LICO as implementing partners in Malawi and hoping for strong and continued relationship for more developmental projects in Malawi. Furthermore, professor Wells said presentation of the study findings is not the end of the project but the beginning for new ideas and strategies to address challenges people are facing. In addition He said this has been the first time in Malawi to have a study which combined three major components namely; Climate Change, Gender Based Violence, and

Mental Health. Concluding his opening remarks he congratulated all stakeholders for coming and encouraged them to fully participate throughout the deliberations.

Professor Tahseen Jafry, Director of The Centre for Climate Justice Glasgow Caledonian University in her remarks acknowledged the good work that the project team has done to reach this far. She said the Malawi team (MZUNI and LICO) have done an exceptional job. Professor Tahseen further appreciated the Government of Malawi for the commitment and support for developmental projects like this study. She added that the purpose of the workshop was to share the study findings with the stakeholders and to get the recommendations from them which would make the way forward. Her remarks ushered the gathering into presentation which was done by various individuals which was done jointly.

Project Presentations

The first presentation on scope and project context was made by Professor Tahseen Jafry and was based on the impacts of climate change on GBV and Mental Health. She eluded that little evidence is available on the extent to which climate change is having an impact on GBV, leading to mental health issues.

Project objectives

The project had three objectives which guided the project as follows;

1. Develop a deeper understanding of the inter-relationships between climate change, gender based violence and mental health and climate justice via a rapid review of literature and field work to evidence insights and understanding.
2. Conduct a stakeholder mapping exercise including social actors and institutional analysis to identify; (a) approaches to grass roots support for women (b) suggestions on what needs to be done to support recovery, build resilience, cope with impacts and improve mental health and wellbeing of women.
3. Conduct participatory of development of support service provision to recover via grass roots women's work (identifying and refining of approaches and uptake pathways as identified).
- 4.

Project Methodology; Overall approach

Dr Michael Mikulewicz who was the project coordinator made a presentation on methodology. He started his presentation by giving the project guiding question; “*What is the relationship between climate change, Gender Based Violence and Mental Health?*”. In his presentation he narrated that primary data was searched from both academic and non-academic sources. During the project queries were made including combinations of climate change, gender based violence, mental health and climate justice. Data base search included; ABI Inform, Google scholar, Science Direct, Web of Knowledge among others.

The study/project was implemented in Traditional Authority (T/A) Mwakhunikila (Chinyolo, Mzokoto, Phwezi and Mkombezi) and Traditional Authority (T/A) Chapinduka (Tcharo, Chipunga and Msuku). 213 women participated in community survey under specified theme questions including; participant background, climate change impacts, mental health implications and gender based violence. Forty six (46) survey respondents participated in the one-to-one interviews on the following questions, participant background, local gender based violence and mental health issues, personal experience of GBV and mental health issues.

Overview of database

- Mental health and well-being are strongly associated with socio-economic status and gender; namely being a woman or girl.
- Women who experience gender-based violence after extreme weather events are more likely to suffer from poor mental health or experience post-traumatic stress.
- Many women feel overloaded or overburdened with the demands placed on their time which are being exacerbated by climate change-induced pressures.
- Climate change impacts can place a burden on family life which can increase the risk of gender-based violence.
- Women are commonly responsible for the health and well-being of others (spouses, children and the elderly). Climate change can increase this burden and stress.
- Historically, violence against women is underreported. Women often do not raise issues of violence directly, and instead they are recorded by support services observing such behaviour.

- The impacts of drought on women's health and well-being cannot be examined in isolation.
- There is a link between the rise in gender-based violence within the context of economic and social stress and slow-moving climate change impacts.
- There is a considerable lack of data relating to the relationship between post-disaster mental health and gender-based violence.

Knowledge gaps and Priorities for further research

Professor Tahseen in her presentation also highlighted on further areas for research that can be considered by professional researchers.

- The direct and indirect impacts of climate change and mental health in developing countries.
- Little research that explores the inter-relationship between climate change, mental health and gender-based violence.
- Risk factors that could be compounded by climate change.

On the marital status of the respondents she mentioned that the majority 75% were married, 12% widows, 9% divorced and 4% single, with average number of 4 children per household. The presentation also revealed that the majority of respondents 88% mentioned that their main dairy activities are household work, 86% farming and 61% small scale businesses.

Impact of climate change on participants lives

Participants responded to this question mentioning stress, emotional impacts, experience of violence, food insecurity, loss of income or employment, feeling sad, damaged housing, decreased yields, sickness and health issues, injury/loss of livestock and loss of family or loved ones. A good number of participants 78% mentioned stress followed by 72% emotional impact and loss of family or loved ones with 23% being the last of the respondents among other impacts.

Impact of climate change on women's mental health

From the analysis of the study findings 86% of the respondents said weather changes affected their mental health and wellbeing whereas only 2% mentioned that coping strategies including getting used to it is part of their new life style but with struggles among other impacts. Respondents mentioned a number of example of how climate impact affects women's mental health including; loss of inner peace and freedom, loss of a child during disaster, less food resulting into tension at home, shock and trauma following floods, suicidal thoughts/attempts, social stigma due to inability to feed the family, anxiety and depression, effects of food insecurity on children including guilty.

Climate change and GBV

In his presentation Dr Michael Mikulewicz said Climate change is an indirect driver of GBV, as it compounds existing issues of violence and increases the likelihood of new instances of violence

The majority 65% of the respondents had mentioned that they were aware of GBV in their community and they said verbal, physical including sexual and financial are among forms of abuse. 52% of the respondents admitted that they were experiencing and have ever experienced physical violence personally whereas 21% eluded that were aware of physical violence in the community. In general participants presented their facts on violence in the community as a result of financial hardship and excessive alcohol consumption.

Research Findings: Stakeholder analysis

Dr Griphin Baxter Chirambo took the flow later and shared on stakeholder analysis. In his aforementioned statement he said various stakeholders were identified under three categories namely; Government, NGOs and Faith Based Organisations. An analysis template was used to assess the mapped stakeholders and understand the “who”, “what”, “when”, “why”, “how”, and “where” for effective stakeholder management. A total of 49 relevant entities were identified. Furthermore, he added that these entities have a vibrant network and all work for a common goal in contributing to the development of the nation by providing solutions to people's problems.

Research Findings: Participants' recommendations

Peter Gondwe made a presentation on participants' recommendations on financial and material support. The interviewed participants offered number of potential solutions necessary for safeguarding their mental health and preventing various forms of Gender Based Violence (GBV). Half of the participants indicated strong need for capital to launch or expand their small business and farming activities. Many explained that investing in women's income generating activities can make them more financial independent from their husbands. Men are not only frequently failing to secure sufficient income for the household but also withhold funds for their own expenses. Women wish to generate the necessary income themselves in the absence of husbands support. Alternatively, working for themselves is often offering paid domestic or agricultural labor, which returns little money, increase dependence on the wealthier members of the community, and is very precarious and insecure, in general. There is the need to secure external support in terms of direct payments, ensuring water access, and support for school fees, food aid, and offering loans e.g. village banks. Financial and material support reflect the widely accepted view among women interviewed that poverty and food insecurity (both exacerbated by climate change impacts) that lead to fighting, abuse and violence, as well as impacts on mental health at household level. Alcoholism and masculinist cultural norms are other examples; participants indicated that food security in particular as precipitating factor for GBV as mentioned by one of the participant.

In addition to financial and material measures to combat poverty and food insecurity, several participants saw a need for counselling at individual and household level which include support for the victims of violence, marriage and family counselling and mental health support. Forty six (46) interviewees elected to attend an individual counselling session with a mental health nurse after their conversation with the research team member which indicates a strong desire and need for mental health services in the communities. Likewise ensuring sufficient food is available, sheltering children from witnessing or experiencing violence in the household, listening to children and talking to them about difficult issues such as domestic abuse in an honest manner, civic education on GBV to prevent them from replicating this behavior as some of the recommendations participants gave pertaining to support for children.

In addition, some participants suggested that planting more trees to limit flooding and reduce erosion, capacity building and training on climate change adaptation, support activities by men, as well as to help men to stop excessive drinking as some of the recommendations.

Discussion and Reflections

This section was led by Prof Tahseen Jafry Principal Investigator. At this point presenters gave chance to the audience (invited guests) to ask questions and give recommendations based on the project findings as presented. The following were the questions and responses;

What screening tools were used on mental health issues?

In response to this question Michael Mikulewicz said we did not use any specific screening tools; it was very open to the participants in terms of how they talk about these things. The report will have the set of questions that were asked in terms of the surveys and interviews. There were different types of questions on mental health, climate change and GBV issues. We did not follow any specific screening tool because it could not really the scope of the project. It was exploratory in nature. We kept it open to see what we can get.

In addition, Professor Tahseen Jafry said just to underpin [that], in terms of screening for mental health issues, before us entering into a new domain of this research it [the research] could easily fall into a number of umbrella of categories: the psychiatric issues and psychosocial issues. What we wanted to do was to remain open minded [about] what information we are going to get back and how will we categorise it rather than pre-empting any design from the onset.

From the presentation, 5% of the participants had suicidal ideations, were there any interventions that were done; sending them or referring them to district hospital just for the assessment?

Dr Grifpin Baxster Chirambo responded: The 5% suicidal issues were identified by the mental health nurse and then the people were referred for counselling services at the district hospital. The counselling is ongoing because we felt it cannot just be a one thing off. Rumphu district is handling that. I know they cannot have a full capacity but being a district hospital, they have the avenues where to take the client to if they have some problems.

I know GBV mostly affect women and the focus of that was on point, but I want to find out if any research was done as to how women are affected by climate change, and they are then perpetrators of abuse due to the impact and how they are affected by climate change? And the stress that comes out of it, does it cause them to be perpetrators of abuse in one way?

Michael Mikulewicz in his responds said the only indication that we found is on mothers can take out their anger on children because they are being subject to GBV itself and they might lose control and the children are at the end of that. There are more but that is the only one that we documented but we were not focusing on the anger.

The Issues of climate justice are not coming out clearly.

Professor Tahseen Jafry responded; on climate justice and how this project relates to the injustice aspect. What we have presented so far are main findings. In our report what we are going to do and what we have been working on is how the issues have been portrayed relate to peoples' right to a decent quality of life. We are relating this to human rights framework and what those frameworks look like currently in Malawi. And developing a narrative and dialogue around that very aspect because at the end of the day this is about sustainable development goals and ensuring that everyone, particularly the poorest and most vulnerable people in the society, have a right to a decent quality of life and protection from wellbeing. Much of what has come out does speak out that particularly women are not feeling safe, are vulnerable and are experiencing many of these issues.

I want to find out the stakeholders you were consulting, was the Malawi police consulted? Because they have victim support unit. Were they part of the term that was consulted?

Peter Gondwe responded: We involved all stakeholders in the district because before we started the research, we had to engage the District Commissioner, District health officer, the police, forest district officer and all other relevant key stakeholders. And they had their own inputs into the research project. After that we went again to the communities to meet the Tradition authorities, T/A Mwankhunikila and T/A Chapinduka, and the Area Development Committees (ADCs) were involved and all structures of child protection.

You say there is an indirect link [between GBV and climate change] but still the examples given are not showing that linkage. I feel like they are general examples. For example, someone was saying she prepared food late and the husband was abusive, calling her a prostitute. I feel like the examples that should be given should relate to climate change and GBV?

Professor Tahseen Jafry responded: some of the quotes are hard to digest and read but that connectivity and [that] change in climate and how it is manifesting on women experiences and how [women] are feeling, the evidence and the quotes will have to speak for themselves and that's the challenges of doing research of this nature. It's not a quantitative insight, it's our job to interpret qualitative data set and reflect on what it is telling us. And using that to come out with thoughts and ideas to go forward.

Micheal Mikulewicz responded [that] some of the quotes doesn't necessarily link the incidences of violence to climate change. The reason is, that there is an indirect link between them. For example, theoretically speaking from the quote, there can be multiple factors, one of them can be climate change, food insecurity, loss of income or loss of crops created by climate change. We were not trying to quantify that this was caused by climate change, this was a high-level exploratory study that seeks to make these links. It is not our participants' job to make the links between GBV and climate change but us as researchers and analysts. The participants spoke of GBV and climate change separately which is fair enough. Because it was up to us to make those connections which we did find.

Professor Tahseen Jafry responded [that] it is important to remember we are entering into a new domain of this research globally because it's so difficult to do. What I am hearing from different parts of the world is that there is climate change resulting to mental health crisis and we are trying globally to get the sense to the extent in which it is manifesting. There will be ups and downs, lessons learned along the way. It will help us modify, adjust and reflect on approach and improve approaches to doing this as we go forward as we received more feedback.

How was sampling of women done?

Peter Gondwe responded [that] the participants were identified by the ADC through the local chiefs. We were targeting households that were mostly affected by the disasters. So, they identified those households and gave them to me and we did the shortlisting.

There are community structures within the communities like the victim support unit, community protection officers and other structures within the communities. Did you find out from them if they are able to access the services? If no, why not?

Dr Griphin Baxter Chirambo responded: these people were informed however it transpired that most women articulated that they had not received the services from the fellow community members much that they were in need of support despite that, the communities have these structures. If you see on the results 58% of the participants lack support and this lack of support is not just from the government and NGOs but also the community.

A question on the recommendation counselling services to children. I would like to understand how is a child defined? And how the counselling services are being conducted?

DR Griphin Baxter Chirambo responded: In terms of mental health, a child can also get counselling services that's why we have child and adolescent mental health services. Take note, that much that we have a child but once has been affected and traumatized this child also needs to be counselled. So, we have experts in fields who are able to do counselling to children.

My question is related on the interviews, I wanted if you would have also interviewed men because some of the complaints or issues that were coming in were related to social norms and roles that women have. So, we are getting information from the women side. If could have also included men to find out, what is it happening because in terms of interventions you cannot target one group you have to target both groups.

Professor Tahseen Jafry responded: agreed to research of this nature need to incur both genders. This was a small project and it did not have huge amount of funding. We had to be very specific and focus what we could do with the budget available to get insights of what is

actually on the ground. Now that we've got this underway, it will provide us with the basis to look at this in more of a holistic sense, wider reach, a wider range of stakeholders and participants both men and women; men are also feeling the heavy impact.

Recommendations from stakeholders

- Establish more research on issues of climate change and GBV but also we need to do more research on men and climate change to find issues surrounding the recent rise of GBV cases. I would also want to inform the house that there is a committee called Climate Change and Mental Health Core Team which comprises of various departments some of them include; Lilongwe University of Agriculture and Natural Resources (LUANAR), Malawi University of Science and Technology (MUST), water department, the academia and the ministry of health.
- Create/build more resilient structures in the communities which would cushion them during disasters. We also need to look into what the communities are already doing on issues affecting them.
- Advocate for collaboration and mainstreaming of activities with Civil Society Organisations (CSO) in their areas of focus.
- The study should continue because it can help to prevent premature death due to rising mental health issues.
- Offering of capacity building to community structures to enable them provide counselling services at community level and refer clients to district hospital for continued counselling where applicable.

Closing remarks

Prof Tahseen Jafry in her closing remarks thanked the audience for their active participation and contributions. She narrated that even though the study was done in the Northern part of Malawi, the findings are for the whole Malawi including African countries and other parts of the world who can also take the findings into consideration for their respective countries. In addition, Prof Tahseen said that what she is getting from the discussions is a bottom up approach of developing the use of coping strategies and what the community is already doing. She also appreciated the establishment of the Climate change and mental health core committee by the government and expressed her gratitude for the committee.

Prof Tahseen Jafry gave her appreciation to the ministry of health and all stakeholders present. Much appreciation to Peter (LICO), Baxter (MZUNI) for spear heading this project on the ground and extended her appreciation to the GCU team for working hard and collaboratively to make this a success. She concluded by saying the project has ended but we need to discuss in the near future on how to move ahead.

Dr Michael Udedi made his remarks by appreciating the Scottish Government for the financial support to conduct this study. Udedi extended his appreciation to Mzuzu University and Life Concern Organisation for implementing the project activities. Likewise, the Government will take into consideration the findings of the study in planning for disasters.

Dr Griffin Baxter Chirambo thanked the audience for sparing their time to participate in the meeting. He said this is the end of the project but not the end of the issues/problems.

Kingston Chirwa closed the meeting with the word of prayer.

[END OF WORKSHOP]