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Exploring gender and climate justice:

A multiscalar analysis of gender mainstreaming in climate change adaptation, evidence from Malawi

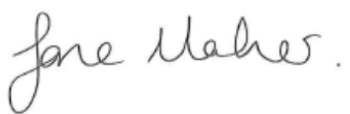
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A thesis submitted to the Geography Department, University of Dublin, Trinity College, in fulfilment of the requirements for the Doctor of Philosophy

2019

Declaration

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Abstract

Climate change impacts are differentiated between communities and individuals, and adaptive capacity is determined by underlying social and economic factors, such as gender. There is a growing emphasis on differing impacts and vulnerabilities of climate change, including a growing body of research on gender and climate change. Despite this, there remain gaps in the literature surrounding how gender is considered across scales. To rectify this, this research conducts a multiscalar analysis of climate justice issues regarding gender within climate change adaptation. It draws on a multi-method, embedded case study approach, including an intersectional lens. By examining the trickle-down of gender considerations in climate change policy from the international to the local scale, this research explores the distribution of climate change adaptation resources, based on gender mainstreaming, to communities in the Lower Shire Valley in Malawi. This research indicates that there is a clear transfer of gendered language from international to national policy, and on to subnational implementation. At local level, the findings show an observed gender balance in climate change adaptation activities in the Lower Shire Valley, however, this does not translate to women's empowerment. This research shows that women maintain a lower adaptive capacity to climate change and its impacts, as compared to other groups within the community. This thesis also provides novel insight into the differentiated understanding of vulnerability between policy-makers and communities. While policy makers view women as the most climate vulnerable, people in the Shire Valley attribute vulnerability to capability and do not see women as necessarily vulnerable. Finally, by using an intersectional lens, the research explores local experiences of climate change and access to adaptation across more diverse groups than merely a male/female divide, showing how age, household structure and land status have implications on adaptation. Finally, the research highlights the need for policy-makers to adopt more meaningful gender mainstreaming actions in climate change adaptation activities, moving beyond the application of gender balance as the key measure within policies.

Thesis Summary

Climate change is recognised as the greatest threat to societies across the world. It is already affecting millions of people, and it is predicted, that over the forthcoming decades, billions of people will experience the, largely negative, impacts of climate change. An increase in global temperatures between 2.5°C and 4°C will result in an extra 45–125 million people threatened with hunger. While climate change is a global phenomenon, it is also considered unequal and unjust. This is because, globally, emission production is unevenly dispersed, as are the effects of climate change. It is often low greenhouse gas emitting countries that are more vulnerable to climate change impacts. These countries are often found in low-income regions, particularly countries in Asia and sub-Saharan Africa, which often have a lower adaptive capacity.

Adaptive capacity is determined by underlying social and economic factors, such as gender. Therefore, climate change experiences are differentiated within, and between, communities, groups and individuals. There has been a growing emphasis on the differentiated impacts and vulnerabilities of climate change, and research on gender and climate change has been a key aspect of this. Women are often portrayed in literature as being more vulnerable to the impacts of climate change, due to their socially constructed roles and responsibilities, especially within the developing world. There has also been a noted underrepresentation of women in at all levels of climate change decision-making fora. These views have resulted in climate change policies and actions increasingly considering gender and women.

There is a gap in the literature surrounding how gender relations and considerations within climate change interact across scales. To rectify this, this research conducts a multiscale analysis of climate justice issues regarding gender within climate change adaptation. A multi-method, embedded case study approach, which drew on intersectional feminist approaches, was used to carry out this multiscale research. By examining the trickle-down of gender considerations in climate change policy from the international to the local, this research explored the distribution of climate change adaptation resources, based on gender mainstreaming, to communities in the Lower Shire Valley in Malawi.

Malawi was chosen as country of focus for this research due to its high climate vulnerability and due to evidence of high flows of finance for climate change adaptation based on this climate vulnerability. Within Malawi, the Lower Shire Valley was determined as the most suitable region to conduct subnational and local analysis due to the region's higher than national average climate vulnerability and finance flows. This research contributed, complemented, and

extended the knowledge in the field of climate justice and climate change adaptation by highlighting barriers and pitfalls of current practices of gender mainstreaming in climate change adaptation across international, national, subnational and local scales.

The findings show that there has been an observable improvement in the discussions of gender issues within the climate change policy domain across scales. This research indicates that there is a clear trickle-down of gendered language from international policy to national policy, and on to subnational implementation. All the national policies that were analysed showed the use of gendered language, directly informed by and mirroring the guiding international policies. There was also an observed gender balance in climate change adaptation activities in the Lower Shire Valley. However, the use of gender considerations did not translate to the empowerment of women. Furthermore, women often have a lower adaptive capacity to climate change and its impacts, as compared to other groups within the community.

Local level data and analysis provided new findings on perceptions of vulnerability to climate change and the role of traditional leaders in the distribution of climate change adaptation. The findings show that there is a disparity between the understanding of vulnerability between policy-makers and communities. Policy-makers view women as the most climate vulnerable group based on their assigned roles and responsibilities, while the people in the Lower Shire Valley attribute vulnerability based on capabilities. The research also presented novel empirical evidence of the power of traditional leaders within climate change distribution in the Lower Shire Valley. The research noted the common practice of redistribution of resources by traditional leaders. This highlights the limitations of participatory approaches and a resistance by traditional leaders to change existing norms, particularly in light of the influence of external value systems. Finally, through use of an intersectional lens, the research could explore local experiences of climate change and access to adaptation across more diverse groups than merely a male/female divide. It shows how age, household structure and land status have implications on access to adaptation.

There are notable key barriers affecting successful gender mainstreaming in climate change adaptation. These include the failure to create implementation and reporting mechanisms, a contradiction of norms presented in policies to those at local level in the location of implementation, a lack of leadership on dealing with gender equality, and a lack of nuanced examination of gender relations in the areas of implementation. As a result, the research highlights the need for policy-makers and practitioners to adopt more meaningful gender mainstreaming actions in climate change adaptation activities, moving beyond the application of gender balance as the key measure within policies.

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List of Abbreviations

ASWAp – Agriculture Sector Wide Approach

AU/NEPAD – African Union and New Partnership for Africa’s Development

BPfA – Beijing Platform for Action

BPfA+20 – 20 years since Beijing Platform for Action

CAADP – Comprehensive Africa Agriculture Development Programme

CCA – Climate Change Adaptation

CEDAW - Convention on the Elimination of all Forms of Discrimination Against Women

COP – Conference of Parties

CSO – Civil Society Organisation

DRM – Disaster Risk Management

EU – European Union

FAO – Food and Agriculture Organisation

FGDs – Focus Group Discussions

FHH – Female Headed Households

FISP – Food Input Subsidy Program

FPE – Feminist Political Ecology

INGO – International non-Governmental Organisation

IOM – International Organisation for Migration

IPCC – Intergovernmental Panel on Climate Change

IUCN/WEDO – International Union for Conservation of Nature and Women’s Environment and Development Organisation

GDP – Gross Domestic Product

GFP – Gender Focal Point

ha – Hectare

HFA – The Hyogo Framework for Action

HIV/AIDs – Human Immunodeficiency Virus Infection and Acquired Immune Deficiency Syndrome

LDC – Least Developed Countries

LGBTQ – Lesbian, Gay, Bisexual, Transgender and Queer community

MDGs – Millennium Development Goals

MGDS II – Malawi’s Second Growth and Development Strategy

MVAC – Malawi’s Vulnerability Assessment Committee

NAPA – National Adaptation Programme of Action

NDC – Nationally Determined Contributions

NGM – National Gender Machinery

NGO – non-Governmental Organisation

OHCHR – Office of the United Nations High Commissioner for Human Rights

UN – United Nations

UNDP – United Nations Development Programme

UNFCCC – United Nations Framework Convention on Climate Change

UNISDR – United Nations International Strategy for Disaster Reduction

RQ – Research Questions

SDGs – Sustainable Development Goals

SDSN – Sustainable Development Solutions Network

SFDRR – Sendai Framework for Disaster Risk Reduction

SSA – sub-Saharan Africa

TA – Traditional Authority

VDC – Village Development Committee

WASH – Water, Sanitation and Hygiene

WEAI – The Women’s Empowerment in Agriculture Index

1. Introduction

1.1. Climate change and adaptation

Climate change is recognised as the greatest threat to societies across the world. It is already affecting millions of people, and it is predicted that over the forthcoming decades billions of people will face water and food shortages and greater risks to health and life as a result of climate change (UNFCCC, 2006). It has the potential to reshape our views of a healthy environment and the basis of prosperous human life and society (Brandstedt & Bergman, 2013). Climate change is resultant from the emission of carbon dioxide, along with other greenhouse gases, into the atmosphere (IPCC, 2014). The main source of these greenhouse gas emissions is the production and consumption of fossil fuels, along with contributing factors such as industrial activity, agriculture, land use changes and deforestation (Posner & Weisbach, 2010). The Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (2014) confirms that human activity is forcing climate change, and that it is occurring at a faster rate than previously reported. This has implications on the rate of global temperature rise, sea-level rise and ocean acidification, all of which have implications for human prosperity. Due to the atmospheric change in global temperature, many will face harsher conditions such as an increase in extreme weather events and food shortages. An increase of between 2.5°C and 4°C will result in an extra 45 – 125 million people threatened with hunger (Caney, 2008). It is predicted that by 2100 the impact of climate change on maize crop yields within 4°C temperature rise scenarios ranges between –20 and –45 percent (FAO, 2016). Climate change has been described as an “all-enveloping crisis: every social formation, and every dimension of social life, is profoundly affected” (Goodman, 2009, p. 509).

Although it is predicted to have impacts across the world, climate change is an unjust phenomenon (Page, 2006; Caney, 2005). Globally, emission production is unevenly dispersed, and the effects of climate change are unevenly distributed. It is often low greenhouse gas emitting countries which are more vulnerable to climate change. These countries are often found in low-income regions, such as countries in Asia and sub-Saharan Africa (SSA), which have a lower adaptive capacity (Cameron, et al., 2013; Posner

& Weisbach, 2010). Adaptive capacity is defined in this research as the ability of a system to adapt or adjust to climate change (Smit & Wandel, 2006). The acknowledgment for the need for adaptation as a mechanism for tackling climate change has been cemented in recent years (Adger, et al., 2005), as the intensification of impacts has been felt.

Climate change adaptation (CCA) refers to the process of adjustment to both actual and projected climate change impacts, as well as to moderate or avoid harm and exploit beneficial opportunities (IPCC, 2014). Examples of adaptation include livelihoods diversification, climate smart agriculture, water conservation projects and disaster management (Barrett, 2013). CCA is considered a mechanism to redress climate vulnerability, improve adaptive capacity and resilience. The key objectives of CCA are to reduce vulnerability to climate change impacts and to promote the resilience of a system to cope with experienced or projected impacts (Moreno & Shaw, 2018; Nelson, et al., 2007). Vulnerability to climate change is understood as the predisposition to be adversely affected by climate change. It encompasses sensitivity to harm and lack of capacity to adapt (IPCC, 2014). Resilience is often considered the opposite to vulnerability (Bahadur, et al., 2010) and considered the capacity to prepare for and respond to disturbances, which are not always predicted or foreseen (Chandler & Coaffee, 2017). The capacity to adapt to climate change is considered as being determined by the underlying social and economic weaknesses of a system, which also determine vulnerability to climate change in the first place (Ayers, 2011).

1.2. Climate change adaptation and gender

There is a growing body of research examining the differentiated impacts and vulnerability of climate change amongst countries, societies, communities and individuals. As part of this body of research, gender has increasingly become interlinked with climate change in academic and policy spheres (Jerneck, 2018a; Wong, 2016; Gabrielsson, 2015; Arora-Jonsson, 2011; Nielsen & Reenberg, 2010). A common theme in this research is centred on viewing women as being more vulnerable to climate change (Terry, 2009; Momsen, 2004; Dankelman, 2002; Denton, 2002; Dikito-Wachtmeister, 2000). Rural women are considered particularly at risk to negative climate change impacts

due to their productive and reproductive roles, particularly as household food producers, which closely links them to natural resources (Jost, et al., 2016; Kakota, et al., 2011).

As a result, gender mainstreaming has been increasingly recognised in policies and decisions made under the United Nations Framework Convention on Climate Change (UNFCCC) to leverage co-benefits of gender equality and climate action (UN Women, 2016; Burns & Patouris, 2014). Gender mainstreaming is defined by the United Nations (1997, p. 2) as:

“mainstreaming [of] a gender perspective is the process of assessing the implications for women and men of any planned action, including legislation, policies or programmes, in all areas and at all levels. It is a strategy for making women’s as well as men’s concerns and experiences an integral dimension of design, implementation, monitoring and evaluation of policies and programmes in all political, economic and societal spheres so that women and men benefit equally and inequality is not perpetuated. The ultimate goal is to achieve gender equality”.

Gender equality is understood throughout this thesis as the equal rights, responsibilities and opportunities of women and men (girls and boys) in all aspects of CCA. This includes their rights, responsibilities and opportunities in the decision-making process of CCA across scales; the equal access to finance, resources and inputs; and the acknowledgement of the intersectional gender relations throughout all CCA policies, processes and actions across scales.

The policy practice of gender mainstreaming became widely used after the Beijing Platform for Action (BPfA) was developed during the Fourth Conference on Women held in Beijing in 1995. Since BPfA was agreed, there has been an unprecedented uptake of gender mainstreaming within numerous sectors over the last twenty years (Alston, 2014). Despite this, some scholars claim (Meier & Celis, 2011; Moser, 2005) that there has been little substantive change in practice and argue that gender mainstreaming lacks clarity (Moser, 2005) or direction for achieving gender equality (Meier & Celis, 2011). Feminist critiques have also suggested that gender mainstreaming has been decoupled from its initial transformative potential for creating gender equality and has become routine bureaucratic process that does little to address the embedded social and cultural barriers women face (Meier & Celis, 2011; Prügl, 2010; Wittman, 2010), which in the context of

climate change, can restrict women's full and equal participation in decision-making processes, plans and actions (Denton, 2002).

Despite criticism, there is widespread reluctance to disregard gender mainstreaming (Lessa & Rocha, 2011). In 2015, twenty years after the BPfA was implemented (BpfA+20), the commitment to gender mainstreaming was reaffirmed by global leaders (UN Women, 2015). Gender mainstreaming is still considered an imperative policy strategy for social change. Moreover, the discussions of gender mainstreaming in climate change policy and practice has increased over the last ten years. It has been suggested that key barriers of gender mainstreaming can be unmasked within the climate change and CCA space, and in times of rebuilding or adapting to climate change, there can be a recommitment to the transformative nature intended in the BPfA (Alston, 2014). Correspondingly, there has been a noted increased commitment to language of gender mainstreaming within UNFCCC actions (UNFCCC, 2015a).

The following section explores the research rationale of this research by exploring the specific research questions and situating the project within climate justice.

1.3. Research rationale

As the central focus of this research explores differentiated vulnerabilities of climate change, the distribution of and access to CCA, and gender equality, it was determined to situate the research within the field of climate justice. Climate justice is a complex concept with numerous meanings. Climate justice literature is largely focused on theoretical debates surrounding rights and ethics. The concept is applied throughout academia, advocacy and activism as a result of the increasing acknowledgement of inequalities in causing climate change, differentiated adaptive capacities (Barrett, 2013; Fussler, 2010) and the increased incidence of climate related events. This includes climate-related disasters experienced in recent years, largely in the Global South. There are numerous types of justice which are drawn upon in the broad field of climate justice; this thesis is concerned with issues of distributive, procedural and remedial justice. Distributive justice is concerned with the distributions of benefits and burdens of climate

change among groups and individuals (Johansson-Stenman & Konow, 2010). Procedural justice is the normative judgement of fairness in the participation of decision-making processes (Svarstad, et al., 2011). Remedial justice, or remedial action, demands respects for rights and the just compensation for the infringement of rights (Ikeme, 2003).

Discussions of climate justice have often been restricted to individual scales in isolation from one another, without a comparison or a discussion of how these interact. This includes discussions about international policies and negotiations, (Albin, 2001; Fermann, 1997) and the hyperlocal analysis of households in climate vulnerable countries (Kakota, et al. 2015; Dulal, et al., 2010). However, there have been efforts to strengthen links and research between scales by conducting empirical multiscalar research to test and measure climate justice. This is reflected in research conducted by Barrett (2014; 2013; 2012) who viewed finance for CCA as one means of creating a tangible and measurable proxy for analysing climate justice across international, national, subnational and local scales. Under the UNFCCC, developed states are required to provide finance for CCA as compensation to climate vulnerable regions (Paavola & Adger, 2006), and can therefore be used as a proxy for analysing climate justice. In theory, CCA should not only be assigned to climate vulnerable regions but to those most impacted by climate change within these regions (Wong, 2016; Barrett, 2014). The attention to women's climate vulnerability has created a growing emphasis on gender mainstreaming considerations within UNFCCC decisions, policies and agreement. However, the relationship between CCA and gender across scales remains an under-researched area.

To rectify this, following Barrett's multiscalar approach, my research, drawing on the scales of international, national, subnational and local, examines how gender mainstreaming considerations formed in international policies are being interpreted and implemented in Malawi. Malawi was chosen as a case study location due to its comparatively high global climate vulnerability (Maplecroft, 2015) and relatively high levels of climate finance flowing to the country based on vulnerability (Barrett, 2014; 2013). Within Malawi, the Lower Shire Valley was determined as the focus of subnational and local data collection based on national and academic evidence indicating higher than national average levels of climate vulnerability (Barrett, 2013; Government of Malawi, 2006). A multiscalar analysis allows us to capture more holistically the social, political and

economic processes that shape societal impacts of climate change and its governance (Betsill & Bulkeley, 2006). This is especially relevant when exploring issues of gender and CCA, as gender relations are socially, spatially and culturally diverse across scales and place (Donkersloot, 2012). This research complements and extends existing knowledge in the field of climate justice and CCA by contributing a multiscale gender analysis of CCA and providing empirical research to highlight barriers and pitfalls of gender mainstreaming across these scales. This research is focused on four key questions set out in Table 1.

Table 1: Research Questions

Research Questions	
RQ1	To what extent do gender considerations in international climate change policy influence gender mainstreaming in CCA policies at national scale in Malawi?
RQ2	How are CCA resources distributed at subnational scale influenced by gender mainstreaming in the Lower Shire Valley, Malawi?
RQ3	Are there differentiated experiences of climate change (based on gender, age and other social identifiers) in the Lower Shire Valley?
RQ4	How do different groups (based on gender, age and other social identifiers) in the Lower Shire Valley access CCA resources?

There is a need to conduct this research because, while academic exploration has investigated the gendered experience of climate change, there remains a key gap in empirical knowledge on the understanding of gender considerations in policy, the influence gender policies have across scales and their potential impact at local scale in climate vulnerable communities.

Furthermore, this research took place at a time where crucial new policies, agreements and agendas were developed with the goal of advancing towards sustainable development. In 2015, numerous agreements and policies were formed, including: The Paris Agreement, a global action plan to mitigate and adapt to climate change was agreed at the twenty-first Conference of Parties (COP21); the Sustainable Development Goals (SDGs) of the 2030 Agenda; and the Sendai Framework for Disaster Risk Reduction (SFDRR).

The inclusion of key disaster policies was determined appropriate within the context of this research for a number of reasons. Firstly, the increase of extreme weather events resulted in a more apparent climate-disaster nexus. As with the noted increase in attention to adaptation, there has also been an increased acknowledgement of the need for disaster risk management (DRM). Numerous scholars have called on the integration of DRM and CCA within policy approaches (Djalante & Thomalla, 2012; Schipper, 2009; Mitchell & van Aalst, 2008). UNISDR, the United Nations Office for Disaster Risk Reduction (2018, p. 13) defines DRM as “the application of disaster risk reduction policies, process and actions to prevent new risk, reduce existing disaster risk and manage residual risk, contributing to the strengthening of resilience”. Both climate risk and disaster risk are context specific, they are experienced in places and times, in ways that are shaped by local patterns (UNISDR, 2018). Secondly, during the time of data collection, Malawi, and specifically the Lower Shire Valley, had undergone two consecutive climate related disasters: extensive flooding in 2015 and an ongoing drought in 2016. Therefore, CCA and DRM are highly interlinked, often discussed and used interchangeably, or treated as one entity by relevant actors in Malawi. While this research has a central focus on gender mainstreaming within CCA actions, the climate-disaster nexus is acknowledged throughout and referenced at various points within this thesis.

This research contributes to the knowledge and progress of debates on gender and climate change, by analysing CCA policies and actions across scales through a gender-sensitive lens to give a well-rounded insight to this current policy action.

1.4. Thesis structure

The remainder of this thesis is divided into seven chapters. The next chapter provides a conceptual basis on which the research stands, examining relevant literature on climate justice, gender, adaptation, vulnerability, relevant feminist theories and concepts of governance and power. Chapter Three presents an overview of Malawi, the case study site for the national and subnational elements of this research. Chapter Four outlines the methodological framework drawn upon during this research, including data collection methods and analysis tools. Thereafter, empirical results are presented and

examined over the following three chapters, each answering a specific research question. Chapter Five outlines the main findings from the gender analysis of international and national climate change policies. Chapter Six presents the key results from national and subnational key actor interviews from various sectors including donors, government, non-governmental organisations (NGOs) and traditional community leaders. In Chapter Seven, the key findings that emerged from local scale data collection such as key community challenges, local perspectives on climate vulnerability and adaptation are presented. Chapter Seven also includes an exploration of empowerment within a climate change context. In Chapter Eight, emergent themes from across the empirical analysis are explored more deeply within the context of justice and empowerment theories and policy implications. Finally, Chapter Nine concludes the thesis by summarising the contribution that this thesis makes to academic and policy debates and identifies areas of future research to further extend the understanding of gender and adaptation to climate change.

2. Literature Review

2.1. Introduction

This chapter presents the conceptual framework used in this research to set the basis for the following chapters and the justification for the empirical research conducted. The chapter provides the state of knowledge in the fields of climate justice in the context of CCA and gender to date, and highlight gaps in this literature. The chapter is divided into five sections. Firstly, the chapter situates this research within the context of climate justice. Secondly, feminist theoretical frameworks relevant for this research, specifically intersectionality, are explored. Thirdly, key climate change narratives such as vulnerability and resilience. Research on climate change adaptation is then explored. Finally, a discussion on governance and climate change, which explores notions of scale and power is presented.

2.2. Climate justice

Climate justice is a multivalent concept without one fixed definition. It consists of a complex body of theories, and has been applied across academia, activism and advocacy. It involves novel global issues spanning over long time periods, large spatial scales, and scientific uncertainty (Roser, et al., 2015). The concept first evolved from broader global justice activism, which combined grassroots environmentalism with a growing concern for climate change (Jenkins, 2018; Goodman, 2009). Unlike the origins of the environmental justice movement, which are firmly located in local struggles, climate justice has predominantly engaged at the international level (Jenkins, 2018; Bulkeley, et al., 2013).

One of the first enunciations of climate justice was at the United Nations World Summit on Sustainable Development in 2002, where 27 principles of climate justice were developed (Goodman, 2009). These principles sought to assign the responsibility of causing climate change to the Global North, transnational companies and the fossil fuel

industry. The principles also called for the elimination of greenhouse gas production by phasing out fossil fuels and reducing the dependency on extractive industries. The principles also sought to gain better protection and representation in decision making for those most vulnerable in the Global South, specifically referring to indigenous peoples, those living in poverty, women and youth groups. Since then, issues of justice, equity and legitimacy within a climate change context have grown extensively among civil society, academia, policy and practitioners.

Over the last two decades, scholarly research within climate justice has conceptualised responses to climate change in terms of rights, responsibilities, procedures and distributional outcomes (Bailey, 2017; Holland, 2017; Bulkeley, et al., 2013; Caney, 2010). Those advocating for distributive justice are concerned with assigning the rights and responsibilities, the advantages and burdens associated with climate change (Bulkeley, et al., 2013; Paavola & Adger, 2006). Distributive justice can be considered synonymous with fairness in “the distribution of social and economic benefits and burdens among a group of individuals” (Johansson-Stenman & Konow, 2010, p. 151). Advocates for procedural justice consider the inclusion, participation and distribution of power in the process of climate change action (Bulkeley, et al., 2013; Paavola & Adger, 2006). Within the theoretical framing of adaptation, procedural justice is concerned with “how and by whom decisions on adaptive responses are made” (Thomas & Twyman, 2005, p. 116).

Climate justice scholar Henry Shue (1992) states that considering climate justice within climate policy is unavoidable, and necessary for any international agreement. However, some scholars highlight the complexity of the interaction between the theoretical, moral and political philosophical justice approaches to climate justice and the empirical approach of social and natural climate scientists (Roser, et al., 2015; Schlosberg & Collins, 2014; Bulkeley, et al., 2013). As a result, there have been criticisms of climate justice. Some consider it a struggling concept due to the complexity of climate change (Jenkins, 2018), the limited interdisciplinary engagement and lack of understanding between social and natural scientists. Nonetheless, academic studies have aimed to bridge the gap of the philosophical and the practical by focusing on pragmatic questions of the applicability of justice concepts when responding to climate change and attempting

to build global governance structures for managing climate change (Schlosberg & Collins, 2014). There have been analyses of justice in various aspects of climate change issues and sectors: ecological justice (Schlosberg & Collins, 2014); intergenerational justice, the safeguarding of resources, health, and sustainable livelihoods for future generations (Schuppert, 2011; Gardiner, 2006; Page, 1999); energy justice (Jenkins, 2018); global cities and urban adaptation (Bulkeley, et al., 2013), disaster management (Byrnes, 2014); climate justice within national conversations (Bailey, 2017) and the agency of vulnerable groups in decision-making (Running, 2015). There have been few empirical investigations to analyse the implementation of actions to achieve climate justice. One example is the research conducted by Barrett (2014; 2013; 2012) in which climate change adaptation (CCA) and its corresponding finance were viewed as a proxy measurement of climate justice. There remain gaps within the exploration of gender in climate justice, especially in relation to the gender implications of climate policy (Pearse, 2017), which this research aims to contribute to.

Whether empirical or theoretical, much of the scholarly literature to date determines that climate change impacts are a violation of human rights (Bell, 2013; Gardiner, 2011; Caney, 2010; Caney, 2005; Shue, 1999) and “fundamentally an ethical issue” (Gardiner, 2011, p. 3). The human rights and ethical perspective of climate change impacts has gained momentum in recent years, and this is seen in the culmination of the ‘people-centred’ international climate change agreement, the Paris Agreement, agreed in 2015 (Huyer, 2016; MRFCJ, 2015). However, dealing with climate change within this framework is not without its challenges. Gardiner and Hartzell-Nichols (2012) bring together three major challenges to ethical action. Firstly, the transboundary and truly global nature of climate change, which implies that once greenhouse gases are emitted, they can affect climate systems anywhere. Secondly, the inequality of climate change, such as its intergenerational considerations, meaning that greenhouse gas emissions exist in the atmosphere for generations and will contribute to negative effects for centuries to come. Hence, our actions today have the potential to negatively impact the lives of future generations, who are not able to engage in current decision-making structures on climate change (Shue, 2014). Thirdly, there is a lack of theoretical tools in international justice, intergenerational justice and the relationship between humans and nature to achieve

ethical action in climate change. Some of the key ethical issues surrounding climate justice are discussed in the following sections.

2.2.1. Transboundary climate change and assigning responsibility

Assigning responsibility for climate change, initially, appears a simple task. The debate was originally cast from a Global North-South perspective. The argument held that developed countries have the greatest responsibility for causing climate change, through current and historic greenhouse gas emissions, while developing countries are the least responsible for emissions, but are often the most vulnerable to its impacts (Bulkeley, et al., 2013; Ayers, 2011). However, the question of responsibility on this global scale is contentious for two reasons, as described by Jenkins (2018). Firstly, continued insufficient action is increasing the potential for profound loss from climate impacts globally, resulting in national adaptive resilience being more critical. Secondly, the increasing emissions and the shift in emission production has put pressure on countries already facing continued human development challenges. When considering middle income and emerging economic powers such as China and India, both of which have had rapidly increasing emissions over the last twenty years, assigning responsibility becomes a more complex process (Bulkeley, et al., 2013).

Within the argument of assigning responsibility, wealthier, developed nations which have led us to our current rate of climate change through historical greenhouse gas emissions since industrialisation, bear causal responsibility for climate change and should pay for these transgressions (Schlosberg & Collins, 2014). This is known as the polluter pays principle. In this principle, it is expected that those who contributed to pollution should bear the cost of mitigation and adaptation measures. Even within this principle, there has been a noted lack of pro-environmental behaviour, such as the reduction in emissions. This is argued to be due to the intangible nature of climate change (Adger, et al., 2017), due to its abstract and uncertain nature.

Climate change is considered to lack the characteristics of a standard moral problem or a clear case of ethical responsibility (Jamieson, 2011), this makes assigning responsibility more difficult. While the causal links between human activity and climate change are now widely accepted and agreed upon (IPCC, 2014), there have been debates

for numerous decades by several activists, policy-makers, lobbyists and scientists who dismiss this causal link (Biber, 2009). This has considerably slowed down progress within decision-making processes and the assigning of responsibility.

Henry Shue (2014; 1999; 1980) studied responsibility for climate change at international level and stated that powerful nations have manipulated international agreements and institutions to violate their duties with respect to climate change. Initially, climate agreements such as the Kyoto Protocol, determined a level of responsibility for developed countries to do more. This was articulated in the common but differentiated responsibilities of developed and developing states. Some scholars have argued that developed countries' responsibility for climate change has been weakened in recent climate agreements, specifically the 2015 Paris Agreement (Cléménçon, 2016). The Paris Agreement, it was argued, let "the developed world largely off the hook" for historically and accumulated emissions, and has placed further pressure on developing countries (Cléménçon, 2016, p. 4).

2.2.2. Examining inequality

Central to the climate justice movement is the idea that climate change is interlinked with social justice concerns, including civil and economic rights, gender equality and the rights of indigenous people. This arises from the belief that climate change disproportionately affects marginalised communities who have limited representation in governance structures (Kluttz & Walter, 2018). The distribution of climate change impacts has been described as a double inequality (Barrett, 2013; Fussel, 2010). Fussel (2010) describes this double inequality in which developing nations have little responsibility in causing climate change, but are often more vulnerable to the impacts, and have a low ability to adapt to its effects. This inequality is compounded by the restraint in economic development through traditional industrialised processes (Barrett, 2013), placed on developing nations through international governance structures and agreements such as the Paris Agreement. Beyond examining inequality from a Global North-South perspective, different levels of inequality to climate change can be seen within nations. Inequality is often constructed based on intersecting social categories such as race, gender, age and class (Eriksen, et al., 2015a). An example of

evident inequality within climatic disaster events were vividly seen in the aftermath of Hurricane Katrina, where low-income African-American citizens, who had limited adaptive capacity and support, were left stranded in the city, while wealthy white citizens, who had better access to infrastructures and resources, could flee to safety and protect their assets (Byrnes, 2014; Elliott & Pais, 2006). Hurricane Katrina provided evidence that structural inequalities resulting from racism can determine who is most affected by climate change (Cuomo, 2011). Climate change has also exacerbated other pre-existing inequalities, such as gender inequality.

2.3. Gender and climate change: Relevant feminist theories

Gender refers to the socially acquired notions of masculinity and femininity by which men and women are identified (Momsen, 2004). Gender identities are not simple binary constructions, they are flexible and can vary across timescales, places and power structures (Alston, 2013; Momsen, 2004). Notions of gender are grounded in cultural and political contexts. Gender relations, the socially constructed relations between men and women, and gender roles, the household and employment duties socially assigned to men and women, are crosscut by class, race, ethnicity, religion and age (Momsen, 2004). This section outlines key feminist theories identified as important when considering the societal impacts of climate change.

2.3.1. *Gender and poverty*

Evidence suggests that vulnerability to climate change impacts, as well as resilience and adaptive capacity, are intrinsically linked to poverty (Babul, 2016; Cuomo, 2011; Cannon, 2002). Poorer people are excluded from access to services and social networks due to unequal social relations of power and representation. The feminisation of poverty was a term coined in the 1970's (Pearce, 1978). It became widely discussed within the development narrative in the 1990s, after the Fourth United Nations (UN) Conference on Women, held in Beijing in 1995. It was determined as an important concept within gender and development as poverty is experienced differently by men and

women (Bentley, 2004). The factors which have contributed to the uptake of the feminisation of poverty concept are gender disparities in rights, entitlements, informalisation and feminisation of labour, the erosion of kin-based support networks and, especially, the growing number of female headed households in the developing world (Chant, 2003). Other factors contributing to the narrative of feminisation of poverty are economic access and activity, life expectancy, literacy, education, political representation and health (Bentley, 2004). While the concept gained momentum within development literature, it has been widely critiqued (Chant 2016a; 2009; 2003; 1997). Chant (2009) suggests that one problem with the assumption of female poverty is the consistent use of income as a key indicator of gendered poverty gaps. This fails to capture the dimensions of poverty that appear to be most meaningful to women. A study by Murphy (2015) argues that the drivers of poverty are complex and multifaceted. When analysing the gender dimensions of poverty, there is a need to focus on the broader social structures that impact gender relations, rather than on women alone (Murphy, 2015).

The Beijing Platform for Action (BPfA) was agreed upon during the Fourth UN Conference on Women in 1995. The BPfA aimed to be transformative, and to serve as a space for coalitions and alliances to create networks of solidarity amongst actors and sectors (Cornwall & Edwards, 2010). It called on governments and organisations to fully commit to gender equality and the empowerment of women by addressing the issue through a whole organisation response across all activities. It received commitments from 189 UN member states to achieve gender equality (Cornwall & Edwards, 2015). The BPfA was widely supported by feminist activists and women's networks, as despite twenty years passing since the First UN Conference on Women in 1975, there had been no significant progress in the disadvantaged position of women (Alston, 2014). One of the critical areas of BPfA was the eradication of women's "persistent and increasing burden of poverty" (United Nations, 1995, p. 4). Since then, women and girls have received unprecedented visibility in development discussions, and the quest for women's empowerment and equality has become a vital component of anti-poverty initiatives (Chant, 2016b). Twenty years after the BPfA, however, the extent of poverty gaps between men and women remains to be determined or supported by global, robust, sex-disaggregated statistics of poverty (Bradshaw, et al., 2017).

Within the BPfA, gender mainstreaming was identified as the most important instrument to reach the ambitious goals laid out to address the 12 critical areas identified to achieve gender equality. As a result, gender mainstreaming as a policy action gained strong support. In 1997, the UN established that gender mainstreaming was to be used in all policies and programmes in the UN system (Moser, 2005). The most commonly used definition was set out by the UN Economic and Social Council in 1997:

“Mainstreaming a gender perspective is the process of assessing the implications for women and men of any planned action, including legislation, policies or programmes, in all areas and at all levels. It is a strategy for making women's as well as men's concerns and experiences an integral dimension of the design, implementation, monitoring and evaluation of policies and programmes in all political, economic, and societal spheres so that women and men benefit equally and inequality is not perpetuated. The ultimate goal is to achieve gender equality.” (United Nations , 1997, p. 28).

The United Nations (2002) further stipulated that mainstreaming should position gender equality issues at the centre of analyses, decisions, plans, budgets, and institutional structures and processes. To achieve this, explicit and systematic attention to gender perspectives in all areas was required (United Nations, 2002). In a process of global diffusion over the decade following BPfA, governments, Civil Society Organisations (CSOs) and NGOs adopted gender mainstreaming terminology and practices (Alston, 2014; Moser, 2005; True & Mintrom, 2001). This resulted in the establishment of gender machinery, a coordination body to ensure gender mainstreaming activities and monitor outcomes (Manjoo, 2005), to advance gender and the cause of women in most countries, even those with poor gender equality records (Alston, 2014; True & Mintrom, 2001). Moser (2005) describes the four stages of gender mainstreaming as; firstly, embracing the terminology of gender mainstreaming; secondly, gender mainstreaming included in policy; thirdly, implementing gender mainstreaming in practice; and finally, evaluating the outcomes of gender mainstreamed policies.

Despite the unprecedented uptake of gender mainstreaming within numerous sectors and arenas (Cornwall & Edwards, 2010), there has been limited substantive change witnessed in the past twenty years (Milward, et al., 2015). This has led to gender

mainstreaming facing serious critiques from feminist scholars and activists. The key criticisms of gender mainstreaming are the lack of clarity and direction as to what gender mainstreaming means in practice (Moser, 2005), what gender equality should entail (Meier & Celis, 2011), and who is responsible for achieving gender equality commitments (Payne, 2011; Mukhopadhyay, 2004). Feminist critiques have suggested that gender mainstreaming has been co-opted and de-coupled from its initial transformative potential, and can be used to reinforce institutionalised patriarchy, which does little to address the embedded social and cultural barriers women often face (Meier & Celis, 2011; Prügl, 2010). Moreover, gender mainstreaming has been criticised for becoming a routine process in bureaucracy, and described as a box ticking exercise (Wittman, 2010). In addition, Mukhopadhyay (2004) states there is an absence of professional and political accountability within international institutions with regards to gender mainstreaming. Although gender machineries and gender focal points, a role responsible for the implementation of gender mainstreaming in substantive programmes of an organisation (United Nations, 2018), within institutions have been established, they often have weak influencing power (Kusakabe, 2005).

While gender mainstreaming has received considerable criticism in the twenty years since BPfA was first implemented, there is a widespread reluctance to disregard gender mainstreaming and its transformative potential (Lessa & Rocha, 2011). It remains widely supported within international organisations and gender considerations in project proposals is a necessity for most donor bodies. Gender mainstreaming is still considered by many academics, policymakers and NGOs as an imperative policy strategy for social change. Alston (2014) suggests that key criticisms of gender mainstreaming can be tackled within climate change policies, especially in post-disaster environments, as they create “the possibility of either a cementing of existing inequalities or significant transformation in gender equality” (Alston, 2014, p. 291). When considering gender mainstreaming within the CCA space, Alston (2014) claims that transnational organisations can play a crucial role in changing perceptions of gender mainstreaming at national and local levels. This is due to the unique interaction and greater connection between local and global actors working on climate change.

Consequently, within this thesis gender mainstreaming is not considered a failed policy strategy. Rather, the current practice of gender mainstreaming in CCA policy and implementation is explored from its international formation to its local implementation. Doing this will allow this research to explore whether climate change policy has the potential to greatly contribute to gender equality in climate vulnerable regions which Alston (2014) suggests.

2.3.2. *Ecofeminism and feminist political ecology*

Since the 1980's, there has been an interest in gender and women's connection, or vulnerability, to the environment and environmental change (Warren, 2014). The focus of this connection has been critiqued and has evolved. In the 1980's, thoughts of ecofeminism, or feminist environmental philosophy, focused on women-nature connections and understood nature to be a feminist issue because of the patriarchal treatment of both nature and women (i.e. male domination of women and environmental systems) (Warren, 2014). In addition, women's involvement in grassroots environmental activism and social movements, such as the Chipko movement in India in the 1970's (Shiva, 1988) was seen as proof of women's natural closeness to nature and awareness of environmental issues as compared to men (Momsen, 2004). The characteristics of ecofeminist philosophy are: exploring the connections between the unjustified dominations of women and nature; critiquing male-biased western canonical views of women and nature, and; creating alternatives and solutions to such male-biased views (Warren, 2014). Ecofeminist scholars have examined masculinity, misogyny, patriarchy and racism behind cultures that have enabled eco-destructive and oppressive forms of development (Cuomo, 2011). The theory has put forward a view that women are the primary users and managers of environmental resources at local level, and are victims of environmental degradation through mismanagement by commercial and male dominated usage (Leach, 2007). It was in this backdrop that the perception of women as saviours of the environment emerged. As a result, organisations such as Women, Environment and Development, along with development agencies, often focused on a somewhat static concept of women's roles that portrayed women as a homogenous

group, and to an extent, made men's connections with the environment invisible (Leach, 2007).

Many gender and environmental scholars insist on locating themselves outside the realm of ecofeminism (Momsen, 2004). The 1990's saw some scholars question the natural connections between women and the non-human environment presented in ecofeminism (Rocheleau, et al., 1996; Jackson, 1993; Agarwal, 1992). Leach (2007) stressed concerns that the arguments presented in ecofeminism regarding women's special relationship with the environment drew on stereotypes concerning female farming systems, including natural connections to nature, and a natural extension of their roles as carers. This body of critical work addressed concerns that development projects and programmes which mobilised women, usually through women's groups, to address environmental issues often increased the burden for women and failed to conserve the environment (Leach, 2007). Research in the 1990's also indicated that focusing on women as a homogenous group often marginalised the interests and concerns of women not represented in community groups (Green, et al., 1998; Jackson, 1993). This school of thought suggested that ecofeminism, and the projects implemented as a result, "ran the risk of giving women responsibility for saving the environment without addressing whether they had the resources or capacity to do so" (Leach, 2007, p. 72).

Often, social scientists working within development find ecofeminist views obstructive and prefer a feminist political ecology (FPE) approach. This approach treats gender as a critical variable in shaping access and control of resources, and interacts with class, caste, race and ethnicity to shape ecological change (Momsen, 2004). Recognising these differences amongst women and men undermines the notion of homogeneity of position and interest, and forces questions to be asked about hierarchies and distributional issues within societies (Leach, 2007). Jackson (1998) argues that FPE is a better framework to understand environmental issues as it is not a static concept like ecofeminism, which ignores the agency of men and women. FPE was heralded as a promising sub-field of political ecology in the 1990's after the landmark publication *Feminist Political Ecology* in 1996. In this work, Rocheleau et al. (1996) invited political ecologists, grounded in studying poverty, social justice and the politics of environmental degradation and conversation, to include gender relations and extend their

considerations of scale to include the household (Elmhirst, 2011). Rocheleau et al. (1996) also treated gender as a critical variable that affects access and control of resources. It was argued that social constructs, including gender, interact to influence ecological change, and noted the different struggles of men and women to create sustainable development. Since the emergence of FPE, the focus of literature has shifted from women–nature to gender–environment connections, with an emphasis on context and identity (Leach, 2007).

However, Elmhirst (2011) notes that FPE has failed to mature and take root as a sub-field of political ecology, despite the promise which it held in the 1990s. She acknowledges that although many scholars have produced work that could be labelled as FPE, many do not as the feminist label often carries unhelpful connotations (Elmhirst, 2011). This has resulted in unwanted political meanings, particularly in the Global South, where postcolonial critiques and conservatism complicate the understanding and intentions of feminism. Additionally, Mollett and Faira (2013) liken FPE to ecofeminism as it has a tendency for a narrow reading of gender with a focus on sexual differences, gender roles and patriarchy. Furthermore, it has been argued that FPE “rarely moves beyond class/nature as entangled formations of gendered subjectivity” (Mollett & Faria, 2013, p. 117). Mollett and Faira (2013) also state that development literature discursively states the Global South as “different” or “inferior” and as a result call for race, racism and racialisation to be explicitly stated as central to FPE due to the geographic trend for FPE to focus on this area.

With gender increasingly viewed as a technical problem, to be fixed with a series of tools and techniques rather than acknowledged as a source of oppression, there are concerns that gender has lost its critical and politicised edge in development policy and natural resource management (Mollett & Faria, 2013; Elmhirst, 2011).

2.3.3. Intersectionality

Feminist scholarship has been criticised for presenting women as homogenous groups, by developing a binary view of western women and the ‘other’ (Momsen, 2004). Much of the literature on the gender-climate nexus to date has focused on women only. Although not necessarily aligned to theories of ecofeminism or FPE, this literature can

ultimately face the same criticisms as these theories. Recently, within the feminist movement and in academia, including research on climate change, there has been a noted increase in engagement with intersectional feminism, which aims to move past the homogenous views of gender inequality presented to date. Intersectionality, a theory coined by Kimberlé Crenshaw (1989), originally examined the distinct layers of discrimination African-American women faced in the work place and legal system. It was concerned with forms of injustice that emerged when identities of race, class and gender intersect and interact. It has since evolved within feminist theory and is grounded in an understanding of power and knowledge production (Kaijser & Kronsell, 2014). Intersectionality adopts a distinctive stance and dynamic approach where systems of race, gender and class converge (MacKinnon, 2013; Davies, 2008). By taking account of the social and cultural dynamics, policies and regulations in place, discriminatory stereotypes and power and politics, a clearer picture of oppression appears. The intersectional theory understands that social categorisations often serve as grounds for inclusion or exclusion (Kaijser & Kronsell, 2014). By using an intersectional lens to conduct this research, the aim is to move from a binary analysis based on sex, and considers the context of each case being examined (Aylward, 2010).

The empirical application of intersectionality has been debated due to the context specific nature and difficulty in developing a clear methodological framework (Kaijser & Kronsell, 2014; Cho, et al., 2013; Davies, 2008). However, it is argued here that to understand and to analyse the distribution of CCA, an intersectional framework is necessary to assess power relations and institutional practices that influence access to CCA from the international to local level. Scholarly intersectional analysis works on the basis that climate vulnerability is shaped by the intersections of social norms, responsibilities, politics, power and environmental conditions. Recent climate change and social impact research have opted to use an intersectional lens (van Aelst & Holvoet, 2016; Eriksen, et al., 2015b; Osborne, 2015; Kaijser & Kronsell, 2014), as vulnerability to climate change emerges from the ability to access resources across time, space and between actors (Eriksen, et al., 2015b).

While there has been progress in the awareness of how intersecting social identifiers can cumulate and affect how one experiences climate change impacts and

vulnerability, the scholarly outputs remain confined within narrow binary constructs and remain largely focused on women. For example, Alaimo (2009) highlights how the gendered perspectives of climate change to date have failed to acknowledge how sexual orientation may result in marginalisation and heightened vulnerability to climate change. In addition, issues of race and class have been explored (Byrnes, 2014; Mollett & Faria, 2013; Elliott & Pais, 2006). However, it is contended that these social identities remain largely studied in silos, and how these intersections of constructs interact remain largely unexplored.

By using an intersectional lens, this research can contribute to the strengthening of knowledge towards more just climate change actions, through the acknowledgement of differentiated experiences based not only on gender, but also on other social constructs.

2.4. Gender and climate justice

Gender inequality in climate change has been a growing area of interest within climate justice over the past decade (Wong, 2016; Gabrielsson, 2015; Arora-Jonsson, 2011; Nielsen & Reenberg, 2010; Terry, 2009). Alston (2013, p. 352) claims that climate change and increased environmental catastrophes have brought the question of “why is it that women are so disadvantaged in this space and why is it that women are so critically vulnerable?” to the fore. To date, gendered research has, for a large part, emphasised the climate vulnerability of rural women (Jost, et al., 2016; Alston, 2013). Within the climate-gender nexus, there is evidence which suggests that women face greater challenges during climate related disasters as a result of ingrained gender inequalities (Enarson, 2000). A report by the International Union for Conservation of Nature and Women’s Environment and Development Organisation (IUCN/WEDO) finds that women and children are 14 times more likely to die than men during climate related disasters (Brody, et al., 2008). An example of this is demonstrated in an Oxfam study (2005) from Indonesia and Sri Lanka which indicated that more women died during the 2004 tsunami. Oxfam suggested that this resulted from women being more likely to protect children, and that

men had more skills, such as swimming and tree-climbing, which increased their survival rates during the event. This also demonstrates that existing social roles can increase inequalities and susceptibility to harm (Cuomo, 2011). Kakota et al (2011) noted that labour-intensive social roles responsibilities traditionally assigned to women in rural Malawi, such as collecting firewood and water, are greatly impacted by changes in climate and this results in an increase in labour time and physical strain.

Gender and climate change has also been explored in other contexts, such as the patriarchal dominance of climate action. The perception of inherent connections between patriarchy and climate change is based on a view that considers current political and socioeconomic structures as results of Western capitalist patriarchy which has dominated and exploited women and nature (Shiva, 1988). This perception of patriarchal dominance of climate action can also be determined as the reason climate change has largely been understood as a technical issue, which should be addressed through technological innovation, and has caused of the exclusion of women in decision-making processes. In their paper, Boyd (2002) explores the masculine biases of climate mitigation, using evidence from a mitigation project in Bolivia, which shows that the project built upon Western modes of development. This project opted to prefer technology and market-orientated governance, which reinforced gender inequalities. As a result of the project, employment and participation in programme meetings and workshops increased for men, while efforts to include women failed (Boyd, 2002). Within an American context, Alaimo (2009) explored the impact of hyper-masculinity on Environment Protection Agency climate discourse and policy action. Hyper-masculinity can be understood as the hardening of the environmental policy through technical, diplomatic and military solutions (MacGregor, 2010). Alaimo (2009) found that acknowledging gender within the current structure had the potential to entrench gender polarities and failed to acknowledge the root of vulnerability. A critique of geoengineering, the deliberate human intervention in the climate system, by Buck et al. (2014) aligns geoengineering with the theoretical view of masculinity, put forward by Ortner (1974), as dominant of and in control of nature. Other feminist researchers have outlined how current masculine climate governance structures have specifically marginalised people from the Global South and LGBTQ people (Pearse, 2017). Masculine climate governance structures, it is

argued, persistently fail to acknowledge different experiences and limited representation in decision-making structures.

2.4.1. *Women as vulnerable to climate change: a narrative of climate change vulnerability and resilience*

Within gender and climate change research there has been a tendency to present women as vulnerable to climate change due to their roles and responsibilities and their limited representation within decision-making structures (Terry, 2009; Momsen, 2004; Dankelman, 2002; Denton, 2002; Dikito-Wachtmeister, 2000). The IPCC (2014, p. 5) defines vulnerability as:

“the propensity or predisposition to be adversely affected ... [it] encompasses a variety of concepts and elements including sensitivity or susceptibility to harm and lack of capacity to cope and adapt.”

Vulnerability to climate change is conceptualised in various ways, which include factors such as wealth, social status and gender (Otto, et al., 2017; Yadav & Lal, 2017; Füssel, 2007; O'Brien, et al., 2004). The concept of vulnerability has become a powerful analytical tool for describing states of susceptibility to harm, powerlessness and marginality of both physical and social systems, and for guiding normative analysis of actions to enhance well-being through the reduction of risk (Alaimo, 2009; Adger, 2006). Vulnerability can also be understood to be a measure of the capacity of individuals to respond to hazards, referring to the capacity to preserve the structure of systems (Bahadur, et al., 2010). In any definition of vulnerability in relation to environmental change, the key parameters are: the stress to which a system is exposed; its sensitivity and its adaptive capacity (Adger, 2006).

Everyone is vulnerable to climate change to varying degrees. For some, the impacts of climate change may be beneficial, but predominantly the impacts are projected to be harmful, particularly impacting the developing world negatively (Arora-Jonsson, 2011; Leary, et al., 2008). Vulnerability varies from place to place, with different vulnerabilities noted between rural and urban areas. It is widely acknowledged that rural areas, especially in developing countries, face a multitude of climate change impacts,

especially related to agricultural productivity and poverty (Dasgupta, et al., 2014; Cuomo, 2011). Vulnerability is compounded by limited resources, poor infrastructure and weak or ineffective systems of governance (Ayers, 2011). For example, in developing countries, the economic effects of weather-related shocks can reach up to a quarter of GDP and result in thousands of premature deaths (Paavola & Adger, 2006; Guranko, 2003). It is those most dependent on agriculture and natural resource-based livelihoods that bear the greatest risk of loss as a result of climate change (Guranko, 2003). Vulnerability analyses are designed to identify the most vulnerable populations and determine adaptive actions to reduce their vulnerability to stress while promoting sustainability (Nelson, et al., 2007).

There has been a tendency to view women as vulnerable within research on gender and climate change, particularly focusing on women's limited participation in climate decision-making and negotiations (Terry, 2009; Momsen, 2004; Dankelman, 2002; Denton, 2002; Dikito-Wachtmeister, 2000). Research has also been conducted analysing context specific gendered vulnerabilities to climate change at local level (Jost, et al., 2016; Kakota, et al., 2011; Jones & Boyd, 2011). More recently, scholars discussing gender and climate change have become more conscious of the normative effect of focusing on women as vulnerable to climate change (Pearse, 2017). In her paper, Arora-Jonsson (2011) discusses how the narrative of women as virtuous in the Global North, and vulnerable in the Global South, can deflect attention from power relations and institutional inequalities at all levels of climate change by reinforcing gendered assumptions. Bee (2014) argues, that women are neither victims nor virtuous, rather, their perceptions and actions result from their socio-political, environmental and economic contexts. The emphasis on women's vulnerability draws attention to supposed weaknesses or limitations, and this reinforces and compounds gender inequalities (Bee, 2014). The oversimplification of vulnerability can also isolate marginalised men and other social groups (Cornwall, 2003). When viewing marginalised groups, which women are often considered, as vulnerable, it can "obfuscate the agency, knowledge and resilience" of these groups, limiting the potential for positive change (Cuomo, 2011, p. 695). Vulnerability, resilience and CCA have become dominant within narratives of local level climate action (Barrett, 2012).

There is a commonality between vulnerability and resilience narratives, generally suggesting resilience as the opposing value to vulnerability (Bahadur, et al., 2010; Adger, 2006). Within policies, both vulnerability and resilience terminology are used regularly. Most geography literature agrees that the relationship is not linear nor entirely independent (Weichselgartner & Kelman, 2015), and it is argued that their points of convergence are more numerous than their points of divergence (Adger, 2006). Use of the term resilience has risen rapidly over the last decade to become a key term in international policy and academic debates, often replacing the language of vulnerability (Chandler & Coaffee, 2017; Weichselgartner & Kelman, 2015). Resilience is commonly used to signify the ability to return quickly to a previous, and good, condition (Bahadur, et al., 2010). For example, UNISDR (2018, p. 12) defines resilience as:

“the ability of a system, community or society that is exposed to hazards to resist, absorb, accommodate and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions. It means the ability to ‘bounce’ or ‘spring back’ from a shock. Developing resilience and/or coping capacities contributes to reducing disaster risk.”

In academia, resilience thinking has multiple and diverse meanings, traversing several disciplines and communities of practice, including psychology, ecology, genetics, structural engineering and corporate strategy (Bahadur, et al., 2010). In geography, literature on resilience offers perspectives through the field of natural hazards, including climate change. This aims to give an understanding of how societies deal with the changes and disturbances caused by extreme environmental events (Weichselgartner & Kelman, 2015). Similarly, in social sciences resilience is largely discussed in the context of social and ecological systems. Resilience is often defined in international relations as “capacity to prepare for, to respond to, or to bounce back from, problems or perturbations and disturbances, which cannot necessarily be predicted or foreseen in advance” (Chandler & Coaffee, 2017, p. 4). Resilience is articulated into three broad approaches by Chandler & Coaffee (2017). Firstly, a homeostatic approach, one that seeks to return to a pre-existing equilibrium, or bouncing back, enabling a smooth and efficient return to functioning after a disaster or setback. This approach aims to recognise problems, respond to, and recover from them with minimum disruption. Secondly, an autopoietic approach, in which

bouncing back is not the aim of resilience, rather growth and development is. In this approach, resilience is not about returning to the equilibrium but is a process of ongoing transformation, which is likened to bouncing forward. The final approach to resilience put forward by Chandler & Coaffee (2017) is more concerned with rethinking contextual possibilities in the present, with a focus on developing resilience through micro-politics using reflexive approaches. This approach aims to engage with communities to develop new ideas, new tools and skills-sets to include in policy.

The concept of resilience is not without its critics. Rothe (2017, p. 171) states “resilience seems to be everything – ideology, discourse, governmentality, strategy or assemblage – yet it is anything but a coherent or fixed program”. Chandler and Coaffee (2017) suggest that resilience has resulted in a world where “clarity is less possible and separations between threats and objects to be secured, between insider and outsider, human and nature, problems and solutions, past and future, seem less stable than before” (Chandler & Coaffee, 2017, p. 4). Advocates of resilience claim that less precision enables a more open and fluid approach, which is more iterative and sensitive to feedback (Chandler & Coaffee, 2017). Some scholars suggest an inherent danger of the elasticity and flexibility of the concept is that resilience becomes an empty signifier, and its meaning can be tailored to justify actions that do not demonstrate results (Rothe, 2017; Weichselgartner & Kelman, 2015). Others state that while resilience may be important to support and maintain a desirable state, it may also maintain an undesirable state, making recovery or transformation difficult (Weichselgartner & Kelman, 2015). Furthermore, as with many concepts, resilience is defined by external forces from academia, international organisations and government, and the responsibility is placed on communities to adapt to the logic of these external influences (Weichselgartner & Kelman, 2015; Welsh, 2013).

Compared to vulnerability studies, women’s resilience to climate change and disasters is less well documented (Moreno & Shaw, 2018). Additionally, both gender and resilience in relation to climate change are under-explored (Moreno & Shaw, 2018). Some suggest that working on gender and resilience in climate change and disasters can produce pathways to long-term changes in gender equality and female empowerment, as these events can disrupt processes and structures and provide opportunities to rebuild more equal systems (Moreno & Shaw, 2018; Alston, 2014; Bradshaw, 2013).

2.5. Climate change adaptation

The key objective of most CCA actions is the reduction in vulnerability (Nelson, et al., 2007) or the capacity to be resilient, leading to positive functioning after a disturbance (Moreno & Shaw, 2018). The capacity to adapt to climate change is considered by Ayers (2011) as determined by the underlying social and economic weakness of a system, which also determines the vulnerability to climate change in the first place. It is a standard practice for societies to undergo change, adjusting their activities and locations to take advantage of new opportunities. That said, adaptation is often imposed on societies due to undesirable events (Leary, et al., 2008; Nelson, et al., 2007). CCA is defined by the IPCC (2014) as the process of adjustment to climate change impacts, actual and projected, and to moderate and avoid harm or the exploitation of beneficial opportunities. CCA aims to address essential requirements to combat the level of global warming we have already committed to (Gardiner, 2011). The realisation of the necessity for CCA has been acknowledged in recent years as the frequency and magnitude of climate-related events has increased (Eriksen, et al., 2015a; Jennings, 2011). As discussed, those who are most vulnerable to the impacts of climate change are often the poor and marginalised, living in low income areas, and for these communities, adaptation is a necessity, not an option (Kaijser & Kronsell, 2014; Boko, et al., 2007).

While adaptation is the process of adjustment, the definition of adaptive capacity is contested among scholars. Some consider it the ability of a system to adjust to climate change (Smit & Wandel, 2006). Others consider adaptive capacity as the improvement of capacity, resulting in the reduction of vulnerability to the impacts of climate change (Bahadur, et al., 2010), and some scholars view adaptive capacity as a synonym of resilience (Berkes, 2007; Nelson, et al., 2007; Osbahr, 2007). Finally, other scholars view resilience as one tool in the arsenal to achieving adaptive capacity (Folke, 2006). Adaptive capacity has also increasingly become a topic within climate justice debates, to develop more just communities.

As with vulnerability and resilience to climate change, adaptive capacity varies among places, scales, communities and individuals. Evidence illustrates that women's and

men's adaptation practices vary and are specific to their socioeconomic and cultural contexts (Pearse, 2017; Bee, 2014). Resources and support inputs required for resilience are found to be socially differentiated by gender (Othniel Yila & Resurreccion, 2014). Research by Deressa et al. (2009) indicates that male-headed household adapt more readily to climate change. There are many reasons why women are often viewed as having limited adaptive capacity to climate change, including limited livelihood opportunities due to their roles as household and family carers (Jones & Boyd, 2011), greater dependence on environmental resources (Kakota, et al., 2011), less access to education, skills and training (Oxfam, 2005) and restricted rights, such as limited land rights (Deressa, et al., 2009). While Pearse (2017), using examples from Sugden et al. (2014) and Djoudi and Brockhaus (2011), show that with increased economic autonomy and opportunities for income-generating activities, women can increase their adaptive capacity. However, there remains an underrepresentation of gender issues in CCA, especially in terms of distribution and justice (Jerneck, 2018a).

Within this thesis, various types of adaptation are considered, particularly during the presentation of empirical findings. Firstly, formal adaptation, which is defined as any adaptation action supported by government or development initiatives. This can include inputs received, new projects developed, disaster management, new infrastructure, or new agricultural practices. Secondly, informal adaptation is considered as any adaptation practice that is not supported by government or development organisations; these practices embrace both new actions and traditional coping strategies that communities use to adapt to environmental changes. This can include traditional agriculture practices, changes in food usage and consumption, new livelihood activities, or migration. Finally, this research considers maladaptation activities that could be harmful to the environment, communities or individuals, and which, ultimately do not reduce vulnerability to climate change, but potentially contribute to negative outcomes. This can include environmentally harmful activities such as deforestation (Antwi-Agyei, et al., 2018) and over-fishing, as well as high risk activities, such as transactional sex (Stoebenau, et al., 2016; Pascoe, et al., 2015) and engaging in illegal activities.

2.5.1. Finance for CCA and remedial justice

From CCA multiple social dilemmas arise which involve issues of morals and justice, including questions of who gains and benefits from adaptation strategies, and the legitimacy of collective and governance responses (Adger, et al., 2017). Distributive justice is unlikely to be sufficient when considering CCA. As a result, procedural justice is needed to underpin legitimacy and determine the decision-makers on adaptation, as well as who accesses adaptation (Paavola & Adger, 2006). As stated by Bulkeley et al. (2013) developing a just approach for CCA poses a different set of questions as compared to those of mitigation. This is primarily because adaptation raises questions about the rights and access of vulnerable communities and individuals to CCA, which is considered a private good that only the recipient directly benefits from (Barrett, 2012). The benefits of mitigation on the other hand are systematic, and can be felt across large spatial and temporal scales (Barrett, 2012), and considered a public good (Hasson, et al., 2010).

This research views finance for CCA as a beneficial tool to measure remedial justice for those most impacted by climate change. Remedial justice, or remedial action, demands respect for rights and the just compensation for infringement of these rights (Ikeme, 2003). Within the context of CCA, remedial justice recognises states causing climate change are responsible for just compensation to remedy the damage caused to climate vulnerable regions or states (Adger, et al., 2006; Baer, 2006; Paterson, 2001; Albin, 2001). The distribution of finance for CCA across scales and actors provides insights into remedial efforts from international processes to local level implementation.

Finance for CCA can take the form of private investment, multilateral and bilateral climate related aid, South-South transfers, carbon markets and official climate finance (Forstater, 2012). There have been international efforts made under the UNFCCC to create mechanisms to remedy climate change impacts through compensation. Under the UNFCCC there have been numerous financial commitments, such as those included in the Copenhagen Accord (2009). During the Cancun Adaptation Framework (2010), the international community adopted the Green Climate Fund, and in 2011 it became recognised as the designated operating mechanism for compensation, or remedial justice, between high and low income countries (UNFCCC, 2018). The development of institutional mechanisms for distributing climate finance is considered a key component

of an effective global climate action plan (Vanderheiden, 2015). Within the Paris Agreement (2015), Parties confirmed the Green Climate Fund and the Global Environmental Facility as the operating financial entities of the Agreement (UNFCCC, 2018). Global climate finance flows were reported as \$383 billion in 2016 (Buchner, et al., 2017). However, developed countries has consistently fallen short of their obligations to provide adequate funding to climate vulnerable countries, and about 10 percent of climate finance flows are reported to be for adaptation, with developed nations favouring support of mitigation finance to offset their emissions (Schalatek, 2016).

Within climate justice scholarship, examinations have been conducted on compensation given by developed states to address the inequalities of climate change in developing countries (Barrett, 2014; Barrett, 2013; Barrett, 2012; Ciplet, et al., 2013). In theory, finance for CCA should be assigned to the most climate vulnerable communities and those most affected by climate change impacts within these communities (Wong, 2016). Although questions can be raised about what countries are most vulnerable and who decides this (Mace, 2006), the crux of climate justice is that the most climate vulnerable people receive the essential assistance they need to ensure their survival and wellbeing. Barrett (2012) examined this across scales by creating a climate justice framework that identified the distribution paths of justice, using climate finance as a proxy, to reveal whether the most climate vulnerable states are receiving adequate assistance. In addition, the study examined if this finance is being distributed to the most climate vulnerable districts and communities within those countries. The actualisation of climate justice depends on CCA finance lessening climate vulnerabilities for local communities (Barrett, 2012).

Local level assessment can provide greater knowledge on vulnerability reduction as compared to an analysis at international and national level (Barrett, 2013). As climate vulnerability is differentiated between place, space and social groups, if CCA finance is a means to measure climate justice, there is a need to understand the access of different groups to that finance in climate vulnerable communities. There has been limited research to assess the climate risk reduction of poor, marginalized and climate vulnerable communities (Barrett, 2013). This research, therefore, examines the distribution of CCA based on current practices of gender mainstreaming and aims to contribute to the

understanding of access within climate vulnerable areas. When examining the distributive, procedural and remedial justice issues regarding CCA, the multi-scalar, multi-sector and multi-actor nature of the issue must be acknowledged. As a result, the next section examines the governance structures involved in CCA.

2.6. Governance and climate change adaptation

It is argued that the abstract, intangible nature of climate change dampens reactions and fails to activate our moral intuitions to govern climate change successfully (Adger, et al., 2017). This is attributed to the lack of causal connections in relation to the complex, large-scale and contemporary hazards that climate poses, which limits moral accountability (Adger, et al., 2017). In this research, governance is used to describe to the range of institutions, and their interactions, involved in CCA (Huiteima, et al., 2016). Climate change governance involves multiscale actors, specifically ranging across the international, supranational, regional, national, subnational and local scales. Multiscale governance can be understood in a narrow context of governance shared between local, national and international governmental institutions, or, in a broader context which considers traditional state actors but also a more diverse range of actors and institutions (Kern & Bulkeley, 2009). As a result of the wide range of actors involved in driving the debate on climate justice, including scholars, non-state actors, grassroots activists, and highly climate vulnerable state actors, a broad understanding of multiscale governance is adopted in this thesis.

Adaptation to climate change is governed by international environmental law, including actions, decisions and policies made by the UNFCCC (Paavola & Adger, 2006). Adaptation issues have become a central aspect of UNFCCC proceedings, and within sustainable development mechanisms adaptation, and risk reduction are increasingly incorporated within development actions and aid (Schlosberg & Collins, 2014). As such, there is difficulty in separating CCA and non-climate related development interventions because climate vulnerability is often determined by social and economic weaknesses, such as access to resources, land tenure, health and education (Ayers, 2011). CCA governance is also critiqued for lacking a clearly agreed common goal or mission. It aims

to protect diverse social goals, such as health, resilience of infrastructure, climate smart agriculture and the preservation of livelihoods. It therefore encompasses the protection of 'everything', which may lead to confusion and misunderstanding of project actions (Huiteima, et al., 2016), as impacts, experiences and approaches vary among stakeholders.

Many suggest that subnational governments represent a critical scale in climate change governance as CCA is generally addressed at this jurisdiction (Huiteima, et al., 2016). In this thesis, subnational is used to refer to municipal or district level governance actors. There is evidence from Betsill and Bulkeley (2006) that shows urban subnational governments responding to predefined policies from national and international forum but also taking the initiative to refine and define local adaptation strategies. With that said, there is criticism that adaptation has failed to involve local communities (Orlove, 2009). Jennings (2011) suggests that adaptation serves political interests, as how CCA is defined and implemented is decided by those in power with diverse interests (Eguavoen, et al., 2013). Both Jennings (2011) and Eguavoen et al. (2013) argue that current CCA governance structures fail to include the local communities in which they aim to assist. This is also captured in examples from development and disaster studies which recognise that climate change governance is failing to adequately address the needs of the most vulnerable (Ayers, et al., 2010). Eguavoen et al. (2013) argue that donor and government CCA interventions remain technocratic and politically conservative, without acknowledging the social and political frameworks, interest of actors, perceptions, priorities and bargaining power of affected people across scales (Eguavoen, et al., 2013). Scale and power are therefore important concepts to acknowledge throughout this research.

2.6.1. Scale

In this thesis, it is argued that, to date, research on gender and climate change has taken place in isolated scales, and has not recognised the value of a multiscale approach. Feminist scholarship over the last two decades has critiqued gender in the international climate landscape, namely women's participation in climate decision-making and negotiations (Terry, 2009; Momsen, 2004; Dankelman, 2002; Denton, 2002; Dikito-Wachtmeister, 2000). There has also been research conducted analysing context specific

gendered vulnerabilities to climate change at local level (Jost, et al., 2016; Kakota, et al., 2011; Jones & Boyd, 2011), and more recently, insight into the gender dimensions of CCA at the local level (Jerneck, 2018a; van Aelst & Holvoet, 2016; Wong, 2016). However, there is a gap in scholarship in an empirical analysis of gender dimensions in CCA across scales, and this research aims to contribute new insights into this space by conducting a multiscale analysis.

The discussion of scale is an important one within the gender-disaster-adaptation nexus. Within geography, despite insight from empirical and theoretical research, there remains debate surrounding what scale means, and how it should be operationalised (Marston, et al., 2005). The ambiguity and imprecision of the concept of scale remains a persistent issue (Landauer, et al., 2018). Despite criticism, it has become accepted within human geography that scale is not a fixed or given category, rather, it is a fluid and contingent, socially and politically constructed concept (Moore, 2008; Bulkeley, 2005). In this research, scale is defined as “the spatial, temporal, quantitative, or analytical dimensions used to measure and study any phenomenon, and levels are the units of analysis that are located at different positions on a scale” (Cash, et al., 2006, p. 2).

Connections between scales are inherent in complex arrangements that emerge within environmental governance (Landauer, et al., 2018), as climate change is a global issue with local ramifications that are context specific. However, its transboundary nature requires a multiscale approach (Jerneck, 2018a). The discussion of scale is not only necessary for examining the interactions between hierarchical actors in CCA, but also temporal and spatial scales, which can be affected by societies’ current practices regarding climate change (Landauer, et al., 2018; Jerneck, 2018a; Adger, et al. 2005). This research argues, in line with Adger et al. (2005), that for CCA to be sustainable, there is a need to evaluate CCA across spatial, temporal and hierarchical scales. Furthermore, this research argues that scale is also an important element within gender analysis, as the choice of how to address gender inequalities are ultimately handled within a jurisdiction and reflects the interest and power of actors in decision-making positions.

This research examines how gender mainstreaming evolves within and across scales. Stott and Huq (2014) argue that to mainstream CCA in policies and development activities, knowledge sharing between stakeholders can inform effective policy. This

ensures emerging policies benefit vulnerable communities. Stott and Huq (2014) find that reciprocal communications can encourage smooth knowledge flows between stakeholders in achieving widespread comprehension and effective mainstreaming of CCA. However, Adger et al. (2005) discuss how adaptation actions are not autonomous, but are, in fact, constrained across and within scales by institutional processes such as regulatory structures and social norms.

Like CCA, gender relations are often constrained by processes, practices, beliefs and social norms, with those in power influencing the extent to which gender mainstreaming is included within policy and its implementation. Therefore, it is necessary to explore patterns of power.

2.6.2. Power and empowerment

In thinking about the politics of scales, hierarchies and networks, concepts of power become relevant to examine, as it draws attention to the power and control some maintain, while disempowering others (Bulkeley, 2005). As observed in Moore (2008), scales operate as geographical hierarchies of everyday power relations. Research on scale by Taylor (1982) references the global as the ultimate scale and the only one that matters. This is increasingly the case in the context of globalisation, where the local or community scale can be seen to have less power and importance within current structures. Neoliberal structures have ensured that the Global North has dominant economic and political powers and, especially important for the context of this research, maintained this dominance in climate negotiations and decision-making practices. Research conducted by Gordon (2007) argues that climate change negotiations appear as another forum that increases the powerlessness of poor nations, while other research suggests the smaller, poorer, nations can form allegiances to increase their power and participation capacity within global governance structures. An example of this is the Alliance of Small Island States, one of the most vocal participants within the UNFCCC negotiations (Betzold, 2010). Gardiner (2006) discusses this as the unification of the spatially fragmented to act as a single agent.

Aside from climate negotiations, power also comes into play throughout other aspects of climate change. Within the context of this research concepts of power are

important, especially at the local scale. This is because the introduction of CCA within any context will affect, and be affected by, social relations, governance and resource distribution. Eriksen et al. (2015b) criticise much of the literature on CCA for situating itself within the analyses of earth system processes, rather than in societies and political economies. They suggest that this research masks the social-political causes of risk and vulnerability. Nightingale (2017) argues that in the absence of enforcement mechanisms, institutional strategies, such as adaptation decisions under the UNFCCC, cannot adequately guarantee positive adaptation outcomes. This is also highlighted in Nagel's (2005) view that global justice is not possible within the contemporary multilateral systems as actual justice can only be achieved within a sovereign state and therefore international institutions do not have the power to enforce laws.

While under-researched in CCA explicitly, gender and power is a commonly-used social structural theory coined by Connell (1987). Gender and power have been examined extensively within the field of development, including in examinations of public health interventions (Wingood & DiClemente, 2000), poverty analysis of female headed households (Chant, 1997) and attaining development goals (Johnsson-Latham, 2010).

Power and vulnerability are intrinsically linked because it those within powerful decision-making positions who determine vulnerability and the appropriate CCA response. CCA can perpetuate, rather than alleviate, differential vulnerability at the local level (Nagoda & Nightingale, 2017). It is also argued that political processes can determine what is positive adaptation for some but considered maladaptation to others (Eriksen, et al., 2015b). As such, CCA must be discussed as part of the dynamics of society rather than a technical adjustment, which allows for recognition of issues such as inequality and social justice (Eriksen, et al., 2015b). Individuals and groups are subjected by cultural and hegemonic practices that shape how society views them; this often manifested in inequalities based on gender, class and race others (Eriksen, et al., 2015b).

Participatory processes in development are increasingly used as means to empower people through full participation. In many countries, CCA policies and plans are participatory and are intended to build the resilience and adaptive capacity of communities. However, these efforts are plagued by exclusion of the most marginalised, and unequal power relations are at the core of this (Nagoda & Nightingale, 2017). Women

have often been overlooked, even in contexts where participatory processes have been applied (Cornwall, 2003). Wong (2016) suggests that although participatory CCA plans aim to empower women by promoting women's leadership in formalised local governance, it is often found that women connected to authoritative figures are those most likely to be nominated, and do not form representative samples of the marginalised within society. These examples highlight that current participatory processes in development and climate change programming fail to be truly participatory.

In this research empowerment is understood as the "processes by which those who have been denied the ability to make choices acquire such an ability" (Kabeer, 1999, p. 437). This is particularly important for choices pertaining to individuals' adaptive capacity and resilience in a climate change context. Exploring empowerment in climate change originated in discussions about the lack of political representation of women in governance structures (Denton, 2002; Villagrasa, 2002). Other research has highlighted lower participation of women in adaptation and mitigation projects at community level in the Global South (Peach Brown, 2011; Ahmed & Fajber, 2009; Boyd, 2002). Speaking on the topic, Alston (2013) aligns women's vulnerability to culturally oppressive regimes of power which form and contribute to inequity, gender blind policies and practice.

Kabeer (1999) presented the juxtaposition between the metaphysical concept of empowerment and the practical, results-based world of development policy, in which empowerment has been increasingly situated (Chant, 2016a; Cornwall & Edwards, 2010). Despite there being an uncertainty around a clear definition of empowerment (Hennink, et al., 2012), there has been a preoccupation with the measurement of empowerment within development. Numerous indicators and indices have been developed to quantify empowerment using different variables, across timescales, spaces, between different actors and against specific interventions (Kabeer, 1999). This research draws on two well-established empowerment frameworks: the Women's Empowerment in Agriculture Index (Alkire, et al., 2012) and the resource-agency-achievement framework (Kabeer, 1999).

The Women's Empowerment in Agriculture Index (WEAI) was used during the development of surveys used to collect data for this research. Alkire et al. (2012) developed the index to measure the empowerment of women in the agricultural sector. It is an important framework to draw upon when examining empowerment in rural

settings, where agriculture is the main source of livelihood and the predominant adaptation strategy. It analyses empowerment in areas such as how groups interact, engage and achieve within the context of agriculture. Alkire et al. (2012) indicate that measures of empowerment agency should be considered within five domains: production; resources; income; leadership; and time. Using the production and resources domains, access to decision-making particularly in surrounding agricultural production, land and credit can be explored. The income domain examines control over the use of income and expenditures. The leadership domain is used to examine the membership of groups and comfort to speak to in the community. Finally, the time domain is used to explore the allocation of time spent on productive and domestic tasks.

There are flaws in limiting the analysis of empowerment to visible forms of agency (O'Hara & Clement, 2018). The WEAI measures empowerment based on the greater individual control over income and decision-making, drawing on quantitative methods (O'Hara & Clement, 2018). A key criticism of WEAI has been an over-reliance on quantitative work, limiting the capacity for nuance to emerge (Quisumbing & Meinzen-Dick, 2016). As a result, it was determined to draw on both WEAI to develop household surveys, and Kabeer's (1999) resource-agency-achievement framework, to aide with qualitative analysis and interpretation of results.

The resources-agency-achievement framework developed by Kabeer (1999) has become a commonly cited reference within the exploration of the measurement of empowerment (Alkire, et al., 2013; Cornwall & Edwards, 2010). Kabeer is critical of empowerment analyses, claiming that it often extracts women from their relational context that shapes their social and economic lives (Cornwall & Edwards, 2010; Kabeer, 1999). The structure of the framework centres on the ability to exercise choice, in which there are three inter-related dimensions: resources; agency and achievement. Resources include economic, human and social resources, and how they interact. This impacts on the ability to exercise choice, as those who have access to these resources determine the rules and norms which govern distribution and exchange. Although access tells us little about the choices made, the validity of resource indicators as a measure of empowerment rests on one's agency or entitlement to that resource. Agency within the framework is determined by the ability to define one's goals and act upon them. Quite

often, agency is analysed through levels of decision-making within resource structures. Achievements relate to the measure of wellbeing outcomes. Achievements can range from basic functions such as life expectancy, to more complex measurement, including political representation, measures of domestic violence, dowries, women's emancipation through access to education and financial autonomy.

2.7. Conclusion

By presenting academic literature relevant to this research, the chapter has provided a conceptual basis for the better understanding of the empirical evidence presented in the forthcoming chapters of this thesis. This chapter has reviewed five areas of literature: climate justice; feminist theoretical frameworks; narratives of vulnerability and resilience; climate change adaptation; and governance, scale, power and empowerment. The literature presented here shows the multifaceted nature and complexity of studying the gender-climate nexus with the context of climate justice. It shows that within climate justice literature, the scholarly efforts have focused largely on theoretical and philosophical debates, though there have been recent efforts to quantify and empirically analyse systems of climate justice through measurements of climate finance for adaptation. The chapter highlights the growing emphasis on issues of gender within the climate justice narrative. While scholarly insight in this area is growing, there remain key gaps in understanding that demand further exploration. The literature to date can be criticised for its emphasis on women as a homogenous group, their vulnerability and failing to fully address gender relations in terms of the socioeconomic, political and cultural context. In a bid to move beyond this perspective, this research draws on an intersectional framework, viewing climate change through the perspective of intersecting and interlocking social constructs which can result in both male and female vulnerability and adaptability in the face of climate change. Furthermore, existing literature tends to isolate scales of analysis, with little emphasis placed on how these scales interact in efforts to mainstream gender in CCA policies and actions. It is necessary to provide a multiscale perspective to critically examine the potential impact of gender considerations in policies and how representative these policies are to the views of

climate vulnerable communities. It is suggested that such evidence is “limited, patchy, varied and highly contextual” (Goh, 2012, p. 1) and as such, it is difficult to determine the impacts on women and men in terms of assets, agency and achievement (Jerneck, 2018a). Critical geographers argue that CCA research and policy must disentangle social processes and practices, and be sensitive to intersecting inequalities that emerge during climate change impacts, disasters and responses (Jerneck, 2018a). This research aims to contribute to this gap in the literature by contributing empirical findings through a multiscale, intersectional gender analysis on CCA, with evidence from Malawi. The case study location for the research is set out in the following chapter.

3. Case study locations for data collection: The Lower Shire Valley, Malawi

3.1. Introduction

This chapter provides the background and context to the geographical focus of the research. Firstly, the chapter will explore Malawi's demographic, economic, social and cultural influencing factors. Secondly, it will investigate gender relations in Malawi at national level, village and household level. In doing this, it is essential to explore cultural and traditional practices which are commonplace in rural Malawi. Exploring gender relations in Malawi is imperative to understanding the importance of having gender inclusive policies and practices, and to aide with understanding the gender mainstreaming barriers in place. Thirdly, the chapter will explore the climatic changes that Malawi has increasingly experienced over the last two decades and how this is impacting on sustainable social and economic development. Finally, the chapter will justify the reasoning behind the specific data collection sites, the districts of the Lower Shire Valley, Chikwawa and Nsanje.

3.2. Background

Malawi was chosen as the most suitable case study location for this research because it is highly vulnerable to climate change according to the Maplecroft index (2015) on climate vulnerability. Furthermore, Barrett (2014; 2013) identified high climate vulnerability and relative high levels of CCA finance flowing to Malawi.

Malawi (Figure 1) is a landlocked country, bordered by Mozambique to the east, south and west; Tanzania to the north; Zambia to the north-west. The country has three administrative regions, Northern, Central and Southern, and consists of 28 districts. The total area is 118,484 km² of which 20% is covered by water, most notably Lake Malawi. The topography of Malawi is heterogeneous. The country is situated on the Rift Valley and in which Lake Malawi lies 475 metres above sea-level (Government of Malawi, 2002).

The altitude ranges from 40 metres above sea-level to 3,000 metres at its highest point of Mount Mulanje, Africa's third highest mountain. The plateau region lies between 1,000 – 2,000 metres above sea-level (Government of Malawi, 2002). There are two weather seasons in Malawi: the rainy season from October to April; the dry season from May to October. The dry season can be distinguished further into a cooler period (May – August) and a hot period (September – October). Annual mean temperature ranges from 12°C to 32°C. The annual mean rainfall ranges from 500 mm in valley areas to 3,000 mm in the highlands (Government of Malawi, 2002). The majority (95%) of annual precipitation falls between November and April, with the wettest month being February (Msowoya, et al., 2016). The El Niño Southern Oscillation is recognised as a major factor for summer precipitation, especially for the key rainfall period (Government of Malawi, 2002).

Malawi, formerly Nyasaland, gained independence in 1964 after 73 years under British colonial rule. In 1994, the government changed from a one-party state to a multiparty democracy and a new constitution was adopted (Government of Malawi, 2002). The capital city is Lilongwe, which is located in the Central region. There are two other notable cities, Blantyre and Mzuzu, located in the Southern and Northern regions respectively. The country is divided into four main ethnic groups – Chewa, Tumbuka, Yao and Ngoni (Clifton, et al., 2011). Malawi's population has been rapidly increasing over the last 40 years (Government of Malawi, 2002). The estimated population was 18.6 million in 2017, with a population growth rate of 2.89 percent (World Bank, 2018). Population density in 2016 was 188 inhabitants per square kilometre (United Nations, 2016). Within Malawi, 48% of the population under 15 (Government of Malawi, 2017a). In Malawi in 2015, the maternal mortality rate was reported to be 634 per 100,000 births, and the under-five mortality rate was 64 per 1,000 births (UNICEF, 2015).

Figure 1: Map of Malawi



Source: Klopper, et al. 2012

3.3. Governance

During colonial times Malawi experienced both direct and indirect rule, by means of direct state governance and indirect traditional leadership in the form of chiefs and religious leaders. This dual governance has remained in place post-independence, where the state and traditional leaders work together for the common good of communities.

Since independence, Malawi has been heavily reliant on aid. This has influenced governance in Malawi through the actions and presence of donors, international development organisations, non-governmental organisations (NGO) and civil society organisations (CSO).

3.3.1. Government

Malawi is a democratic country, with the most recent elections taking place in 2014. In 1994, the country underwent devolution, mandated in the new constitution to promote community involvement in democracy, policy and decision-making. The objective of devolution was to empower communities to increase capacity and mobilise resources to the subnational, or district, level for development (Hussein, 2003). This was to be achieved through the delivery of public goods and services to communities, especially those in rural areas (Chiweza, 2010). The Local Government Act of 1998 set out the role of district councils within district level governance. The role of district councils was established as the legitimate centres of implementation and delivery of services at the local level (Chiweza, 2010). Despite the devolution process to create a decentralised government, there are no regional level offices, and all communications travel directly from relative central ministries to local level district councils (Commonwealth Local Government Forum, 2017). Some key setbacks to successful decentralisation are noted by Chiweza (2010) as resistance to change, staffing problems at district and sub-district levels, limited donor funding to district development, and limited knowledge and dialogue of decentralisation and limited downward accountability. As it stands, central government remains the key decision and policy-making force. The current Government is led by President Peter Mutharika and 18 ministers. At present, there are 35 local authorities; 28 district councils; four city councils; two municipal councils; and one town council.

Malawi is a peaceful and stable country, although not free from political scandal and corruption. Over the past decade, corruption in Malawi has been reported as “entrenched, systematic and getting worse” (Strasser, 2016, p. 309). The biggest financial scandal in recent years in Malawi took place in 2013 and is commonly known as Cashgate. The scandal came to light when civil servants were found with high levels of cash in their

homes and vehicles. An independent audit found that Cashgate funds were used to support the electoral campaigns of the then president, Joyce Banda. It was estimated that more than \$45 million was stolen for the support of Banda's electoral campaign (Strasser, 2016). This scandal provoked donors to revoke budgetary aid to the sum of \$150 million annually from Malawi. In 2016, President Mutharika stated that the economy was still struggling to "heal from the wounds of plunder of public finances" in the famous Cashgate and that "the consequences would still be felt in the next decade" (Nyasa Times, 2016).

3.3.2. Traditional leaders

In Malawi, as in much of Africa, traditional leadership co-exists with modern political structures. The role of traditional leaders was harnessed in colonial times. During that era, traditional leaders were tasked with maintaining law and order, overseeing general welfare and collecting taxes (Muriaas, et al., 2017; Eggen, 2011). The role of traditional leaders has been legislated for in Malawi since 1933, when colonial administrators passed the District Administration (Native) Ordinance Act. After independence, the new ruling party, the Malawi Congress Party, reduced the power of traditional leaders. However, compared to other African nations these reductions were not extensive (Eggen, 2011). Malawi's first President, Kamuzu Banda, ensured that traditional leaders were part of the government structure and a subordinate to him. This limited the power of traditional leaders to oppose any state-led actions which could harm their village and 'subjects' during Kamuzu Banda's rule (1964 - 1994). Following the peaceful removal of President Banda from power in 1994, Malawians voted for multi-party democracy. This brought a resurgence of traditional leadership and chieftaincy. Although new legislation reduced the formal functions of traditional leaders, the *de facto* operations of chiefs continued. The importance of traditional leaders is highlighted by Eggen (2011, p. 319) who states that more than "24,000 traditional justice forums...act as traditional courts...chiefs not only settle civil disputes but also act as judges in cases of petty crime...and even more serious crimes". Today, traditional leaders are regarded as public authorities at the local level. They have an important role in the village life, with power to control land, inputs and resources, and to resolve disputes (Hussein, 2010).

The current structure of traditional leadership consists of three tiers: Traditional Authority (TA), the group village headman, and the village chief. Traditional Authorities oversee administrative sub-units of districts, called Traditional Authority areas, and group headmen and chiefs are accountable to them. These traditional leaders can be considered gatekeepers between the government, development organisations and citizens. The government relies on chiefs to maintain registers of residents, and find those eligible for government interventions. In addition, traditional leaders are the gatekeepers to foreign aid, not only approving interventions for a given area but also determining which individuals receive interventions (Eggen, 2011). Rural citizens have little agency to access government or other organisations outside of traditional leadership channels. This demonstrates the true power of traditional authorities within rural villages in Malawi.

3.3.3. Donors and development organisations

Cashgate, and the resulting revocation of foreign aid, had a huge impact on Malawi's economy. Malawi is extremely reliant on donor support, with 40% of government expenditure being donor funded (Arndt, et al., 2015). Poverty is persistent in Malawi, with half of the population living below the poverty line (Mwanakatwe & Bhatia, 2017). It is one of the poorest countries in SSA, with a per capita GDP of \$272 (Government of Malawi, 2015a). It ranks 170th out of 185 countries on the Human Development Index, an indicator that combines life expectancy, education and income as a measure of development (UNDP, 2016).

For the period of 2004 – 2011, Malawi received US\$5.3 billion in foreign aid (De & Becker, 2015). World Bank (2018b) data shows that in 2016 the net official development assistance Malawi received was US\$1.2 billion. The most active donors providing aid to Malawi are the World Bank, United Kingdom, Norway, Australia, the African Development Bank, Germany, Japan and US (Knack, et al., 2011). Ireland, through Irish Aid, is also an active donor, with Malawi being a key partner country. Ireland's total bilateral assistance to Malawi in 2016 totalled €19.5 million (Irish Aid, 2016). De and Becker (2015) carried out a review of aid in Malawi and its sub-national distribution. This showed that for the period of 2004 – 2011, the per capita educational aid expenditure was approximately \$4, while the per capita health and water aid expenditure was \$8. In addition, the study found

that rural areas received twice as many per capita dollars of aid as urban areas. However, proportionally, most areas receiving no aid were also in rural areas (De & Becker, 2015). Within rural distribution of aid, there is a strong emphasis on supporting agricultural productivity.

3.4. Agriculture

Malawi is a largely rural country and approximately 85 percent of the country live in rural areas. Agriculture is the primary industry in the country. The 2015 Annual Economic Report states that agriculture accounts for 30 percent of GDP, and for over 80 percent of national export earnings (Government of Malawi, 2016c; Chinsinga, 2014). The main crops grown are maize, rice, cassava, sweet potato, white potato and legumes. The main cash crops are tea, tobacco, cotton, sugarcane and coffee. In large areas of Malawi, maize is the staple crop, and for many smallholder farmers it is the only crop grown.

The government recognises the importance of the agricultural sector and this is emphasised within the country's long and medium-term strategies: Vision 2020 and Malawi Growth and Development II. Over the past decade, the government has allocated over 10 percent of the annual budget to the Ministry of Agriculture, Irrigation and Water Development (Government of Malawi, 2016c). This budget allocation is in line with the regional agreement, Comprehensive Africa Agriculture Development Programme (CAADP), the African regional agricultural agreement to which Malawi is a signatory. The overarching goal of CAADP is to reconfigure the way agricultural development issues, policies, and investments are formulated and implemented. CAADP was inspired by the underdeveloped nature of the agricultural sector and decades of slow-moving growth in African agriculture after the implementation of the structural adjustment programmes in the 1980's (Chinsinga, 2014). However, despite Malawi's recent investments in agriculture, agricultural productivity is far below its potential, with an average economic growth of approximately four percent per year since 1968 (Government of Malawi, 2016c; Tcale, 2009).

Some of the key issues attributed to the stagnation of agriculture in Malawi are low technological uptake, poor soil quality, small farm size, weak capacity of the public extension systems and weak gender relations. One of the major limitations to Malawian agricultural production is the limited uptake of new technology. Most smallholder farmers use traditional farming practices with little mechanical assistance other than a hand-held hoe. This makes agricultural activities laborious and time-consuming. In addition to this, rain-fed agriculture is the mainstay in Malawi, despite the potential for irrigation. Over 90 percent of total land cultivated is dependent on rainfall alone (Msowoya, et al., 2016). It is estimated by the government that over 400,000 hectares of land could potentially be irrigated, but despite this only 104,000 hectares had been irrigated by 2014 (Government of Malawi, 2016c). Relying on rain-fed agriculture has caused increasing problems in recent years as rainfall patterns have become increasingly unpredictable.

Another limiting factor of the productivity of the Malawian agricultural system is farm size. Most smallholder farms are less than one hectare in size (Government of Malawi, 2016c), and in 2007, it was estimated that approximately 1.8 million farmers work on less than one hectare (Msowoya, et al., 2016). Pressure on land is at its highest in the Southern region where landholding size can be as low as 0.1 hectare (Msowoya, et al., 2016). Landholding size will continue to reduce as families divide up land for inheritance, and land is lost due to persistent flooding and displacement. In addition to this, soil degradation is critical, Smaling (1998) showed that Malawi's soil loses high levels of nitrogen, phosphorous and potassium annually.

Finally, other reasons causing low productivity within agriculture in Malawi include the weak capacity of governmental extension services, the training or education of agricultural supports. The average extension worker to farmer ratio is 1:2,500 compared to the recommended 1:750 (New Partnership for Africa's Development, 2012). Malawi's reliance on a few crops is another limiting factor. Maize is the staple crop, cultivated on up to 97 percent of farms, and often cultivated alone (Msowoya, et al., 2016). Increased climate related disasters, namely floods and droughts, resulting in the loss of agricultural yields also contribute to Malawi's poor agricultural performance. Finally, gender inequality, which results in women facing constraints in access to land

rights, inputs and services, negatively impacts on agricultural productivity. This will be discussed further in this chapter.

3.4.1. Agriculture policies and programmes

The government has put in place numerous policies, programmes and projects to increase agricultural productivity, crop yields and community resilience. The most relevant are explored here, these are: the Farm Input Subsidy Program; the National Agricultural Policy; and the Agriculture Sector Wide Approach.

The Farm Input Subsidy Program (FISP) is a large-scale subsidy programme that was introduced by the Government of Malawi in 2005, despite the resistance of donors and fiscal conservatives (Arndt, et al., 2015; Chinsinga, 2014). The aim of the programme is to promote household food security and enhance rural incomes through subsidising farm inputs, including seed and fertiliser (Lunduka, et al., 2013). At the local level, the programme aims to target vulnerable households, providing two vouchers entitling them to 100 kilograms of maize fertiliser, and two kilograms of hybrid maize seed or four kilograms of composite maize seed at subsidy rate of up to 90 percent (Lunduka, et al., 2013; Chibwana & Fisher, 2011). Beneficiary selection is carried out by traditional leaders and members of village development committees (VDC). Since its inception, FISP has targeted approximately 1.5 million rural smallholders. The main cost components of FISP are fertiliser, seeds, transport and logistics (Arndt, et al., 2015). Donor contributions towards the programme usually finance seed and logistics, this accounts for up to 15 percent of FISP's total annual cost (Dorward & Chirwa, 2011). The programme is largely funded through the national budget. In 2005/06, the program accounted for 5.6 percent of the national budget, this increased to 6.5 percent in 2010/11 (Lunduka, et al., 2013). As 10 percent of the national budget is assigned to agriculture, a large percentage of this is assigned to FISP and indicates the scale and importance of FISP within the agricultural sector in Malawi. The programme is extremely dependent on international seed and fertiliser prices. This results in the Government having limited control over the cost-benefit ratio, which Lunduka et al. (2013) demonstrated as varying greatly between 2005/06 and 2008/09.

Donors, from the outset, were critical of FISP due to its ad hoc nature. It was stated that the programme lacked clear planning, management and an exit strategy, and therefore would not be sustainable in the long-term (Chinsinga, 2014). Donors argued that a medium-term plan was required to set out the goals and objectives, and an implementation plan which could form the basis of an exit strategy (Chinsinga, 2014; Dorward & Chirwa, 2011). In addition, it was felt that a medium-term plan would be beneficial to focus on other agricultural issues, as a large share of the agriculture budget is spent on FISP. As a result, other areas, such as investment in research, extension services, irrigation and trade are consistently underdeveloped (Arndt, et al., 2015; Chinsinga, 2014).

The method of selection leads to inconsistencies within the beneficiary selection and distribution process, as traditional and VDCs do not consistently apply the same criteria. Indeed, Arndt et al. (2015) state that beneficiaries, on average, receive less than the intended 100 kilograms of fertiliser, as distributing inputs more broadly across communities is commonplace. Studies have repeatedly shown that resource-poor farmers are less likely to receive subsidies. Chibwana and Fisher (2011) found that despite the requirement that vulnerable households are targeted for the subsidy, poor households were less likely to receive the vouchers than rich households. This is further corroborated by Arndt et al. (2015) who indicated that well-off farmers, who would have purchased fertiliser commercially without subsidies, received vouchers, thereby distorting affecting the market. Furthermore, young female-headed households are less likely to receive complete subsidy packets as compared to older male-headed households (Chibwana & Fisher, 2011). Nevertheless, FISP had been successful in moving farm households toward food self-sufficiency. In the first year of FISP, 2005, it was estimated that the maize harvest more than doubled, resulting in a surplus of 510,000 metric tons above the national requirement. For the 2011/12 cropping season, the surplus was 1.2 million metric tons (Lunduka, et al., 2013). However, the 2016/17 Malawi Vulnerability Assessment Committee (MVAC) reported that, after two consecutive years of climate related disasters (floods in 2015 and drought in 2016), 375,393 metric tons of food assistance would be required to combat food insecurity in affected districts (Government of Malawi, 2016b). This indicates the challenges in applying the FISP approach to generate food self-sufficiency, in light of climate related disasters.

Until recently, the agricultural sector had been guided by sub-sectoral policies, such as FISP, which concentrated on subsidising inputs only. However, in 2016 the government developed a National Agriculture Policy. This policy aims to act as a “comprehensive policy...to address current challenges and attend to future challenges facing the sector” (Government of Malawi, 2016c, p. ix). The National Agriculture Policy intends to be a transformative policy and an overarching governing strategy linking and updating sub-sectoral policies. Where both FISP and the Agriculture Sector Wide Approach (ASWAp) have been criticised, the National Agriculture Policy intends to focus on medium and long-term strategies. In addition, the National Agriculture Policy has strategies for the commercialisation of the agricultural sector.

The ASWAp was described by the Government of Malawi in 2010 as the “national agricultural development and food security strategy” (Government of Malawi, 2010, p. 2). In the National Agriculture Policy, ASWAp is defined as “a harmonised investment framework...through which development partners pool resources to support the sector” (Government of Malawi, 2016c, p. xii). Developed between 2007 and 2009, the ASWAp is the result of recommendations from the Agricultural Development Programme, set up in 2006 by the World Bank and the Government of Norway, due to concerns over FISP (Chinsinga, 2014). ASWAp directly reinforces the objective of the Malawi Growth and Development Strategy II (MGDS II) of reducing poverty and transforming the economy (Mapila, et al., 2012). It has three focus areas: food security and risk management; commercial agriculture, agro-processing, and market development; and sustainable agricultural land and water management (Government of Malawi, 2016c). With these focus areas, the ASWAp can be described as a more rounded approach to the agriculture sector, as compared to FISP. Furthermore, this strategy has included gender mainstreaming considerations, along with an outline for the necessity of HIV and AIDS considerations. The ASWAp was described by key stakeholders in Chinsinga’s (2014) research as responding to and mirroring the CAADP agenda.

3.5. Climate change

Malawi is highly vulnerable to the impacts of climate change. The average annual temperature in Malawi has increased by 0.9°C from 1960 to 2006 (Irish Aid, 2017). Malawi's climate vulnerability manifests itself in various forms, including increases in short and long-term temperature, shifts in seasonal rainfall, increases in extreme weather events such as storms, floods and drought, changes in ecosystems and the reduction of goods and services provided by ecosystems (Government of Malawi, 2016b). These impacts, particularly prolonged dry spells, drought, intense rainfall and flash floods, have increased in number and intensity over the last two decades, and have adversely affected food security, water security and the sustainable development of livelihoods (Government of Malawi, 2012a). It is projected that annual temperatures will increase between 1.1°C and 3.0°C by 2060 (Irish Aid, 2017). The 2015 and 2016 weather patterns were markedly unpredictable, resulting in large scale crop failure and food insecurity.

In 2015, floods affected 15 out of the 28 districts in Malawi, affecting about 1.1 million people, displacing approximately 230,000 and killing 176 (Government of Malawi, 2015a). The rainfall experienced was the highest level since records began and was considered a "one in 500-year event" (Government of Malawi, 2015b, p. 1). In 2016, due to El Niño, a fluctuation in the earth's climate system resulting from a warming of sea surface temperatures, Malawi experienced further unpredictable weather patterns. The hazards experienced included prolonged dry spells across the country. The MVAC assessed the situation and found that the intense dry spell lasted for a period of between four and seven weeks, affecting the Central and Southern regions in particular (Government of Malawi, 2016a). The Central and Southern regions also experienced erratic rainfall, and floods were recorded in the Northern region. In addition, the MVAC found that the onset of planting rains was delayed by three weeks in the Central region and by four weeks in the Southern region (Government of Malawi, 2016a).

These consecutive weather related disasters profoundly impacted on Malawi's prosperity. It was estimated that damage incurred by the Government of Malawi during the 2015 floods was US\$335 million and reconstruction costs were US\$494 million (Government of Malawi, 2015a). Furthermore, the MVAC reported that 6.5 million people were food insecure and in need of food assistance in 2016 (Government of Malawi, 2016a). The 2016/17 Food Insecurity Response Plan calculated that over US\$395 million

was required to address current food insecurity (Government of Malawi, 2016d). The negative impacts of climate change are visibly hindering the welfare of citizens and the potential for sustainable development. It is also estimated that the projected direct costs from climate change will be the equivalent of losing at least five percent of GDP annually (Government of Malawi, 2016b).

In terms of contribution to climate change, Malawi's greenhouse gas emissions are minimal compared to high emitting, wealthy nations. Within Malawi, the major industries emitting greenhouse gases are forestry (78 percent), Agriculture (16 percent), energy (4 percent) and waste (2 percent). In 2013, Malawi contributed negligible quantities of Carbon Dioxide (0.1 metric tons per capita) comparative to developed nations, such as Ireland (7.9 metric tons per capita) (World Bank, 2016). This minimal contribution to global greenhouse gas emissions is one strand of the inequality of climate change. As is often the case, countries emitting the least feel the effects of climate change the most. As a party to the UNFCCC, Malawi has agreed to move towards a green economy. One step towards sustainable development was the production of the Nationally Determined Contribution (NDC), which outlines mitigation and adaptation strategies on an unconditional and conditional basis. A conditional basis is determined as what the country can achieve in terms of mitigation and adaptation, with international assistance, by means of climate finance and development aid.

3.6. Gender in Malawi

Gender is at the core of how society functions in Malawi, especially in rural areas. The country has two lineage patterns: patrilineal and matrilineal. Under the patrilineal structure, descent and residence is patrilocal; when married, a woman leaves her home to reside in her husband's home and/or village. Within matrilineal areas, the man moves and resides in his wife's home and/or village. Generally, in both societies, women are treated as secondary to men, and decisions are made mostly by men with little agency provided to women, whether within a matrilineal or patrilineal system (White, 2007). Within Malawi, the Central and Southern regions are predominantly matrilineal, while in the Northern region, patrilineal cultures are dominant (Berge, et al., 2014). White (2007)

argues that women within a patrilineal society are often more secure as husbands feel more obliged to take care of their wives and children. Within matrilineal societies, the husband does not have the same responsibility to care for wife and children, as it is the wife's male relatives who bear this responsibility (White, 2007).

There are gendered discrepancies between statutory and customary laws which have a negative impact on gender relations. An example of this can be seen in property rights. The Malawian Constitution, in Article 24, recognises that men and women have the same land rights, however, customary norms result in women accessing land through male relatives (FAO, 2011). These gender relations within rural Malawi, as with much of the Global South, are often determined by Western values as restrictive and unequal (Dixon, 2011). However, research shows that colonialism had a key influencing role on gender relations within the region. This is evidenced by Davison (1993, p. 407) who stated that "the beginning of the British intrusion into the territory...acts as a historical benchmark documenting major changes that have affected gender relations of production in southern Malawi" through missionary and capitalist activities that eroded women's traditional control of resources.

Nonetheless, evidence shows that women are disadvantaged in Malawi, in almost all sectors, as compared to their male counterparts. Malawi's Gender Inequality Index, which measures disparities between women and men in three basic areas of human development – health, knowledge and standard of living, is 0.619, where a score of 0 represents full equality and 1 represents total inequality. This can be compared to Ireland's score of 0.109 (UNDP, 2018). Most notably, disparities can be seen in agriculture, food security, literacy, employment, income, and poverty levels (see Table 2). This largely results from social and cultural attitudes which are entrenched in day to day life, at all levels. Women generally have little access to positions of power and decision-making. Currently, there are 32 women elected in parliament (16.7% of seats available), a reduction from its peak of 43 elected women (22.3%) in 2009 (O'Neil, et al., 2016). At local level, although efforts have been made to increase women's participation, men still far outweigh women in positions of power. Positions of power and decision-making are open to a narrow group of women bound at national level by education, career and class, and

at local level by marital status, religious beliefs and family connections (O'Neil, et al., 2016).

Table 2: Situation analysis of gender (Government of Malawi, 2012b; UNDP, 2018)

<i>Population: Women 51%; Men 49%</i>
<i>Gender Inequality Index 2015: 0.614</i>
<i>Literacy levels: Women 59%; Men 69%</i>
<i>Composition of agricultural labour force: 70% are women</i>
<i>Access to extension services: Women 14%; Men 18%</i>
<i>Poverty prevalence: FHH: 59%; MHH: 51%</i>
<i>Proportion of care-giving for the sick: Women are 80%</i>
<i>Prevalence of HIV among aged 15 – 49 years: Women 13%; Men: 8%</i>
<i>Gender Based Violence victims: 90% are women</i>

As seen in Table 2, women comprise of 70% of the agricultural labour force, and produce 80% of the household food supply (Government of Malawi, 2012b). Their importance in the agricultural sector cannot be over-emphasised. However, women face persistent constraints inhibiting their agricultural production potential, including limited access to land tenure rights, agricultural inputs and resources, as well as limited access to finance and subsidises provided by development agencies and the government.

Since independence in 1964, customary land tenure regimes have undergone changes and as a result women's access to land has been reduced. Post-colonial land reform took place in the 1960's, with the aim of modernising land tenure. This was especially prominent in areas producing tobacco, due to the commercialisation potential of such cash crops (Giovarelli, et al., 2013; Kaarhus, 2010). Land reform aimed to establish village and land boundaries and land rights for families or individuals (Giovarelli, et al., 2013). The land reform took place largely through traditional leaders and male members of villages. Traditionally men were tasked with representing the family on land issues, this resulted in land tenure certificates being provided to the patriarch of households (Kaarhus, 2010). Today, it is estimated that 36.6 percent of individual agricultural landholders are female, and the average landholding size is lower for female headed households (FHH) (0.803 ha) than male headed households (MHH) (1.031 ha) (Government of Malawi, 2017a; Government of Malawi, 2012b). The limited access to

land rights has resulted in limited agency for women to make agricultural related decisions. As extension services and inputs are often supplied based on a register of land, the results in men more easily accessing available resources. Evidence shows that food security can be positively affected by increasing the land rights of women as greater security of tenure positively impacts on agricultural investment and decision making (Giovarelli, et al., 2013).

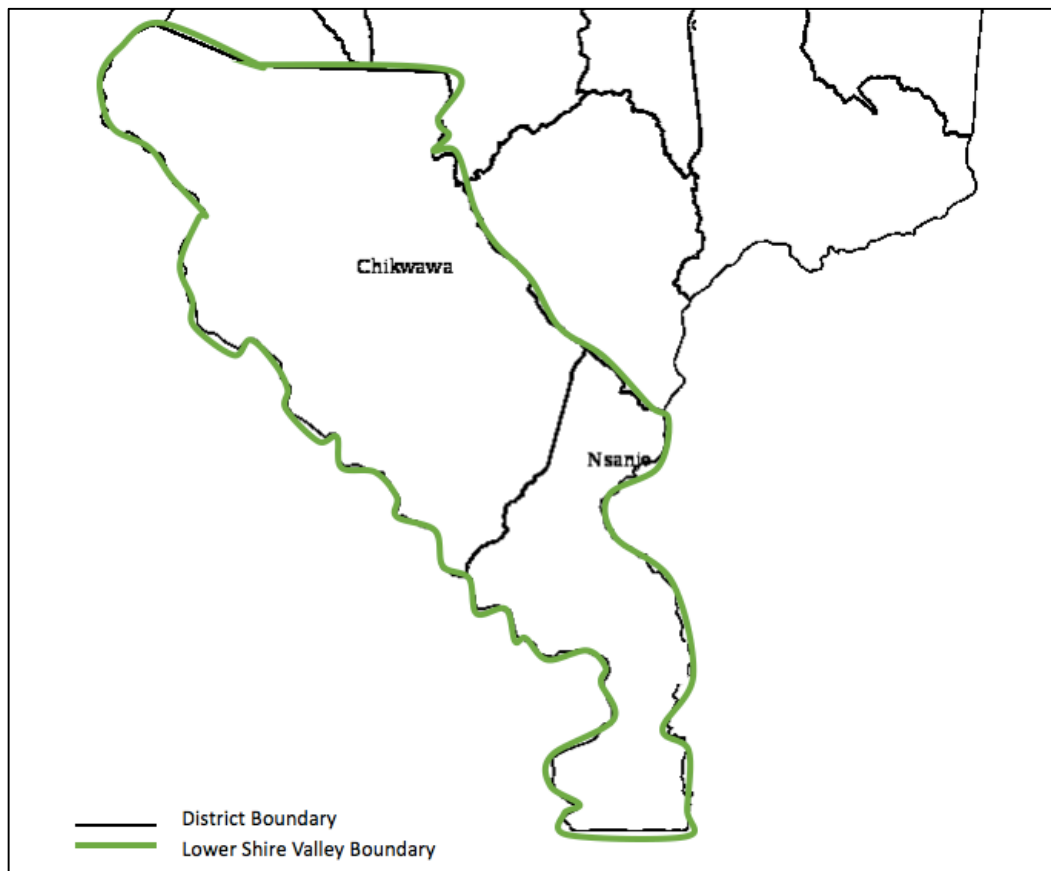
In addition to restrictive land rights which affect women's role as farmers, they also face limited access to other economic activities. It should be noted that both men and women face limited access to decent economic activities in rural areas. However, women are burdened with a triple role of being responsible for household chores, agricultural activities and caring for family, which results in fewer opportunities than men to engage in income generating activities. A recent study found that 63 percent of women, compared to 81 percent of men, are employed (Government of Malawi, 2017a), with women more likely to be employed in agriculture (44%) and unskilled labour (25%). Women also have less access to markets, as men tend to dominate the latter stages of cash crop production, such as the processing and sale of crops (Kaarhus, 2010). This ensures that men have control over income generated from the sale of crops. Furthermore, markets are often far away and women's triple role and cultural constraints can prevent them from travelling to markets (Government of Malawi, 2012b).

There are other gender related issues that can negatively affect women in Malawian society. One such issue is polygamy, which is practiced in some areas. Women living in rural areas report higher rates (14%) of polygamous marriages, compared to women in urban areas (5%) (Government of Malawi, 2017a). Kaarhus (2010) conducted interviews with rural women in Malawi who stated that husbands can remarry without consulting their wife; this usually occurs after harvest when cash crops have been sold. Women felt that this was primarily a disadvantage because scarce resources had to be shared between more households.

3.7. The Lower Shire Valley

The study area for this research was focused on the Lower Shire Valley, which lies at the southern tip of Malawi, and consists of two administrative districts: Chikwawa and Nsanje (Figure 2).

Figure 2: Map of the Lower Shire Valley: consisting of two districts Chikwawa and Nsanje



The justification to concentrate local scale research within this area was informed by the policy and literature review stages of the project. Government documents provided insight into high climate vulnerability and household food insecurity within the region, while academic research provided insight into the levels of CCA finance flowing to these areas. The two districts, Chikwawa and Nsanje, rank in the highest range of climate vulnerability in the National Adaptation Programme of Action (NAPA) (Government of Malawi, 2006) and high proportions of the households in the districts (above 70%)

experience high levels of food insecurity (Government of Malawi, 2012a). In addition, Barrett's (2013) research identified the districts of the Lower Shire Valley as having higher levels of climate vulnerability and corresponding high levels of climate finance.

In the Lower Shire Valley, livelihoods are sustained, generally, by subsistence farming, livestock rearing and casual labour (*ganyu*), all of which are highly vulnerable to climatic stresses (Adeloye, et al., 2015). The poverty rates are amongst the highest in the country, and the National Statistics Office (2012) reports that over 80 percent of people living in Chikwawa and Nsanje live on less than 0.4USD per day (National Statistic Office, 2012). The population density is high in the Lower Shire Valley, in line with national figures, approximately 200 people per square kilometre (World Bank, 2017a). In 2018, the population, based on projections from the 2008 census, was estimated to be 886,975 (Chikwawa: 583,461 and Nsanje: 303,514).

The region is one of the most vulnerable to the impacts of climate change and resulting disasters. Floods and droughts are common occurrences and account for 80 and 70 percent of disaster related mortality and economic losses, respectively (Adeloye, et al., 2015). As part of the Shire River Basin, flooding occurs regularly in the region during the rainy season. It impacts thousands of households each year and keeps much of the population in disaster recovery mode (World Bank, 2014). The intensity of flooding has increased in recent years, particularly along the Shire River (Lumumba-Mijoni & Izadkhah, 2009).

Finally, the national statistics pertaining gender relations in Malawi (Table 2), particularly in education and access to land are representative of the experiences of women in Lower Shire Valley. While the Southern region has been found have more of a matrilineal culture, it is noted that the district of Chikwawa and Nsanje function largely under a patrilineal lineage system (Berge, et al., 2014).

These contextual details of the case study site for national, subnational and local scales are important for the data collection and analysis methods adopted. The methodological framework is explored in the next chapter.

4. Methodology

Creating a firm methodological framework is an essential phase in every research project. A methodology should be functional and reliable (O'Leary, 2014). This chapter presents the suite of tools used for data collection and analysis to achieve the research objectives of this project. The first section presents the methodological framework for this research. The second section explores the case study approach adopted. The third section considers the data collection and analysis techniques, and the final section discusses the ethics of the project and researcher reflections.

4.1. Methodological framework

4.1.1. *Project design*

To meet its research objectives, this research aimed to have relevance at the local scale in Malawi while also having significance at the national, regional and international scale. At the local scale, climate change is impacting people differently depending on geography and a wide range of socioeconomic factors. Meanwhile, the governance of policy and financing for adaptation are predominantly organised externally, ranging from international organisations and governments. It has been argued that, in such complex contexts, research using mixed-methods can provide a better understanding of research problems than using a single approach (Creswell & Plano Clark, 2007). A mixed-method research project is one that employs quantitative and qualitative approaches in a single study (O'Leary, 2014). Key forms of qualitative data collection are interviews, focus group discussions and documentary content analysis. Quantitative methods apply a positivist approach to social research (Creswell, 2009) and tend to include numerical and statistical analyses. In quantitative social research, there is a strong need to test hypotheses, create replicability, and to quantify results (O'Leary, 2014; Porter & Carter, 2000). Key quantitative tools for social research include questionnaires, surveys and indicators. As a result, and in order to present a rounded view of gender considerations in CCA policy, implementation, access and impact across scales, a phased, multi-method research design was developed. This included a systematic literature and policy review, interviews

with key actors, focus group discussions (FGDs) and surveys with local stakeholders in Malawi. To answer the research questions set out in chapter one (see Table 3 for summary) this project drew on a wide range of data collection tools.

Table 3: Research questions and relevant case study subunit

Case subunit	RQ	The case: flows of gender mainstreaming in CCA
(A)/(B)	RQ1	To what extent do gender considerations in international climate change policy influence gender mainstreaming in CCA policies at national scale in Malawi?
(B)	RQ2	How are CCA resources distributed at subnational scale influenced by gender mainstreaming in the Lower Shire Valley, Malawi?
(C)	RQ3	Are there differentiated experiences of climate change (based on gender, age and other social identifiers) in the Lower Shire Valley?
	RQ4	How do different groups (based on gender, age and other social identifiers) in the Lower Shire Valley access CCA?

Firstly, an extensive review of academic and grey literature was conducted prior to planning data collection activities. This focused on the impact of climate change within developing countries, gender and climate change and CCA. Literature was sourced through online journals, the Trinity College Dublin library, and through governmental, non-governmental and civil society organisations. Methodological tools used to conduct similar research were identified through bibliographical search engines, such as Web of Knowledge and Scopus. Once identified, these tools were examined by their key findings revealed and the associated methodological challenges. This foundational stage of the project facilitated the refinement of research questions and objectives. The literature review further helped to identify and develop the methodological tools used during data collection and analysis.

Secondly, qualitative content analysis was used during the coding stage of the policy review to allow for interpretation and reflective thought on gender considerations in relevant policies. Thirdly, qualitative semi-structured interviews were employed to gain greater understanding of national and subnational actors in Malawi. Fourthly, at the local level FGDs were conducted with various community groups. Finally, surveys were

developed to gain a wider perspective of climate change and gender issues and challenges within the case study area. The use of surveys was determined as important due to their ability to gather large numbers of responses on the same questions posed during FGDs, hence allowing the researcher to gain better insight to a whole village perspective.

In order to bound the complexity of this topic and to gain in-depth insight into the differences on how gender is addressed within CCA across scale, a case study approach was adopted. Case studies explore a single entity by collecting detailed information and building a holistic understanding through prolonged engagement (O'Leary, 2014; Creswell, 2009). Case studies are frequently used by scholars researching CCA, vulnerability and development (Cameron, et al., 2015; Rice, et al., 2015; Kakota, et al., 2015; Barrett, 2013; Osbahar, et al., 2008). They encourage high conceptual validity and understanding relevant in an individual context, which is often lost in quantitative research (Creswell, 2009).

4.2. The case study approach

A case study is not a single data collection method itself, rather, it is a choice of research focus that is examined from different angles (Thomas, 2011). It is defined by Yin (2014, p. 16) as:

“an empirical inquiry that investigates a contemporary phenomenon (“the case”) in depth and within its real-world context, especially when the boundaries between phenomenon and context may not be clearly evident”

A case can include the study of individuals, organisations, processes, programmes, institutions and events (Yin, 2014). Case studies facilitate the exploration of a phenomenon within its context using a variety of data sources, allowing for a multifaceted review (Baxter & Jack, 2008). They allow people to define how and why they experience and/or are impacted by the research topic; this provides insight that quantitative methods alone cannot identify (George and Bennet, 2005). Furthermore, case study analysis can examine a number of causal mechanisms, and uncover new and intervening

variables that were not predetermined (George & Bennet, 2005). Ragin (2007) justifies the “small N” approach in case examination as using a small number of cases allows the researcher to explore historical, social and cultural variables in detail. This is something that cannot be achieved with quantitative methods alone, as a large statistically significant sample size is required.

Yin (2014) discusses the situations in which the case study method is appropriate. The first of these situations is when research questions are exploratory or descriptive, asking “what is happening or has happened?” or “how or why did something happen?” (2014, p.5). The second situation when applying the case study method is appropriate is when studying a phenomenon within a real-world context, as data collection in natural settings is favoured. The third situation when case studies can be used is when conducting evaluations.

It should be noted that the case study approach is not without its limitations. Hodkinson and Hodkinson (2001) present some of key drawbacks of the case study method; they can be time consuming, expensive to carry out and they lack the ability to be generalised on a broader scale. For this research, the case study addressed descriptive research questions, asking how gender is addressed in CCA policy and what the differentiated experiences of climate change are at the local level in Malawi. Descriptive questions allow for an inductive approach through which new theory can emerge. In doing this, new thinking can be generated that has a validity that does not depend solely on the case from which it is drawn. Further, Hodkinson and Hodkinson (2001, p.12) discuss how case studies can “ring true” in other settings, especially in revealing “some of the over-simplifications upon which some policies... [and] practices are based”. As such, this case study aims to feed into and inform CCA policy at national and international level, allowing for comparisons in different countries and regions.

Within this research, the case selected was the practice of gender mainstreaming in CCA policies across scales in Malawi. This case was selected because, in recent years, the global consensus has recognised that gender equality in CCA is essential and maximises the efficacy of interventions. Furthermore, research carried out by Burns and Patouris (2014) indicated that considerable progress had been made in the inclusion of gender considerations in UNFCCC decisions. Case studies can be carried out in numerous

different ways, such as single or multiple cases, as well as through holistic or embedded units of analysis (Yin, 2014). For this research, an embedded, single case design was determined as the most appropriate case study to use, outlined in Figure 3. An embedded case study is one that contains more than one sub-unit of analysis (Yin, 2014). Table 3 presents how each research questions is targeted at a particular case study sub-unit. Embedded case studies analyse how sub-units connect and enable the researcher to explore the case and its associated attributes fully (Thomas, 2011; Baxter & Jack, 2008). In addition, embedded case studies complement the integration of mixed-method approaches (Yin, 2014).

Figure 3: Embedded case study design

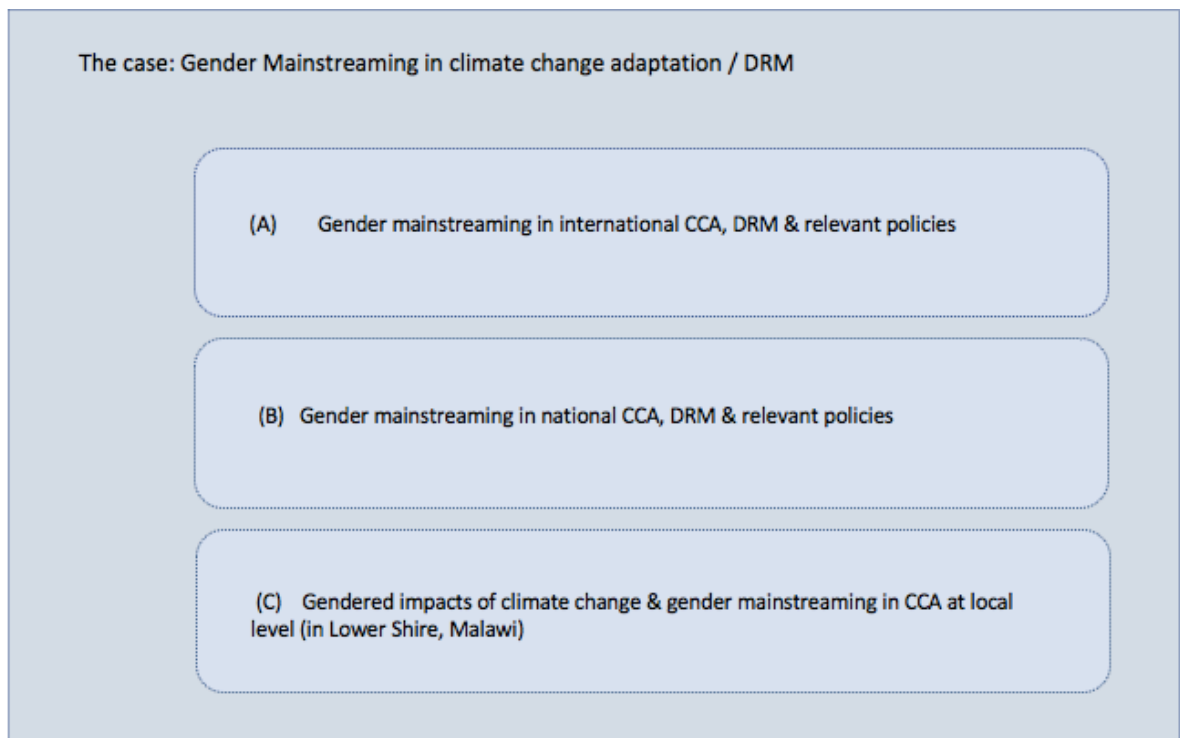


Figure 3 presents the different embedded layers of analysis required to answer the research objectives of this study. Firstly, as necessary with every case study, the contextual conditions of the case were explored. This was achieved through the systematic academic and grey literature review stage. Secondly, the case itself was defined as the analysis of the current practices of gender mainstreaming in CCA. Thirdly, there were three embedded units analysed: (A) gender mainstreaming practices in international CCA and relevant policies; (B) gender mainstreaming in national CCA and

relevant policies (also included in this unit of analysis was the perceptions and views of national and subnational key actors engaged in national policy formation and implementation); (C) the gender mainstreaming effects of current CCA practices at local level. The specific research questions (RQs) employed to conduct this case study and address the gaps in the identified literature through the literature review phase can be seen in Table 3. The different data sources and collection tools used are discussed below.

4.2.1. *Fieldwork*

Fieldwork was a critical stage of this research. England (1994, p. 81) defines fieldwork as “those research methods where the researcher directly confronts those who are researched”. A considerable amount of data (national and subnational interviews, local level FGDs and household surveys) was collected during two trips to Malawi over the periods of September and October 2015, and April to July 2016. Malawi was chosen as a suitable focus for this case study because it is highly vulnerable to climate change according to the Maplecroft (2015) index on climate vulnerability. Furthermore, research conducted by Barrett (2014; 2013) indicated high flows of CCA finance flowing to Malawi based on climate vulnerability, reinforcing its suitability for selection for this study.

The following section presents the methodological tools, including the specific sampling tools employed during fieldwork, as well as the other data collection methods required to carry out the embedded case study and answer the research questions of this project.

4.3. Data collection, sampling and analysis

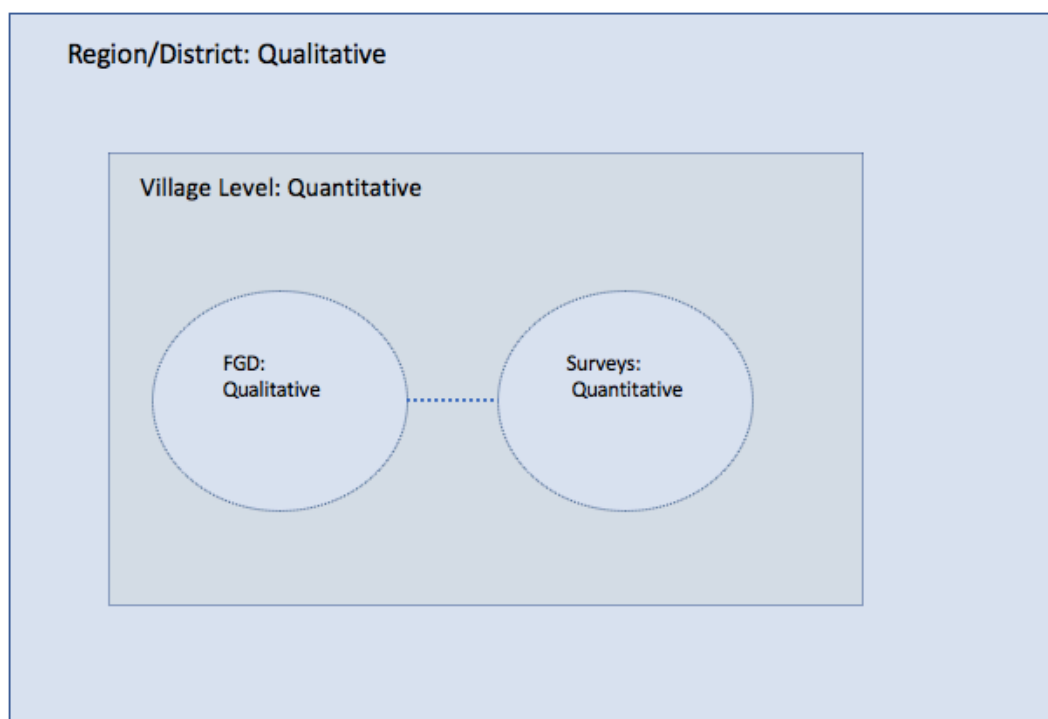
4.3.1. *Sampling framework: identifying data collection locations*

Developing an appropriate sampling framework for data collection at the local scale was a critical element of the project planning stage. As this research is largely qualitative, obtaining a large sample size was not critical for credibility. However, when using surveys, sample size and significance are important. It is acknowledged that carrying out satisfactory sampling in rural or developing regions is complex. Bulmer (1983)

discussed the paradox of sample design for developing regions. Quite often, there is limited access to a registry or census of citizens, and where it does exist, it can often be unreliable. Hence, random sampling cannot be carried out with accuracy. This research drew upon a mixed-method sampling strategy that incorporates both quantitative (probability) and qualitative (purposive) sampling techniques, as outlined in Figure 4. Mixed-method sampling strategy is described by Teddlie & Yu (2007, p. 83):

“Probability sampling frames are usually formally laid out and represent a distribution with a large number of observations. Purposive sampling frames...are typically informal ones based on expert judgement of the researcher or some available resource by the researcher”

Figure 4: Mixed-method sampling framework



The outline of this sampling framework can be seen in Table 4. At the subnational scale, the Lower Shire Valley was determined by qualitative sampling as a suitable area to conduct data collection. This was informed through the policy and literature review phase, which indicated a political interest based on high vulnerability to climate change and food insecurity (Government of Malawi, 2012a; 2006). Finally, previous academic research conducted by Barrett (2014; 2013) presented the Lower Shire Valley as receiving higher than national average rates of CCA finance.

Table 4: Case study location sites justification

<i>Subnational</i>	CCA finance (mean 17.5)		Climate Vulnerability (mean 6.89)	Climate vulnerability	House hold food insecurity
<i>Sampling Unit: Lower Shire Valley</i>	Chikwawa	26	7.9	Severe	75%
	Nsanje	36	7.9	Severe	78%
<i>Local</i>	Traditional Authority 1		Traditional Authority 2	Traditional Authority 3	
<i>Sampling Unit: Lower Shire Valley</i>	Chikwawa	Makhuwira	Kasisi	Ngabu	
	Nsanje	Mlolo	Malemia	Mbenje	

(Source: Barrett 2014; 2013; Government of Malawi 2012; 2006)

As suggested would be the case by Bulmer (1983), Chikwawa and Nsanje had unreliable and outdated census records, so accessing population figures and locations was not possible. Hence, it was decided to use traditional authority areas, an administrative sub-unit of the district under the leadership of traditional leaders, as the most reliable way to determine specific areas to conduct data collection at local scale. To do this, the research drew upon a quantitative sampling framework of a random stratified selection of six traditional authorities within the two districts (Table 4). Figures 5 and 6 shows the district maps with selected traditional authorities for the two districts of the Lower Shire Valley. Sampling methods employed for specific data collection tools will be explored in the following sections.

Figure 5: Chikwawa district and TA areas

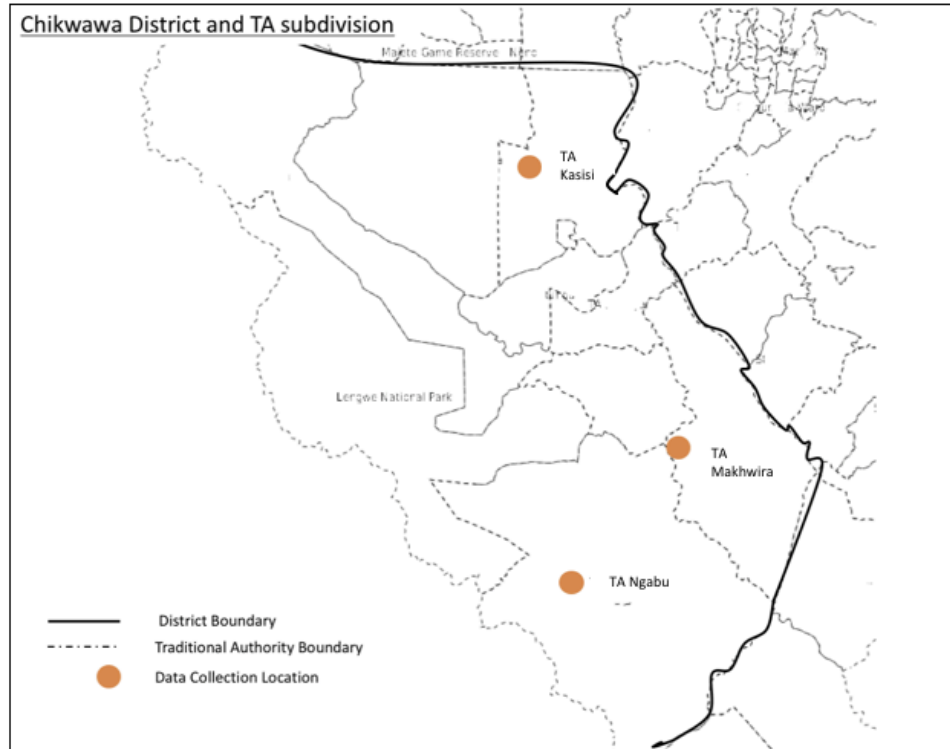
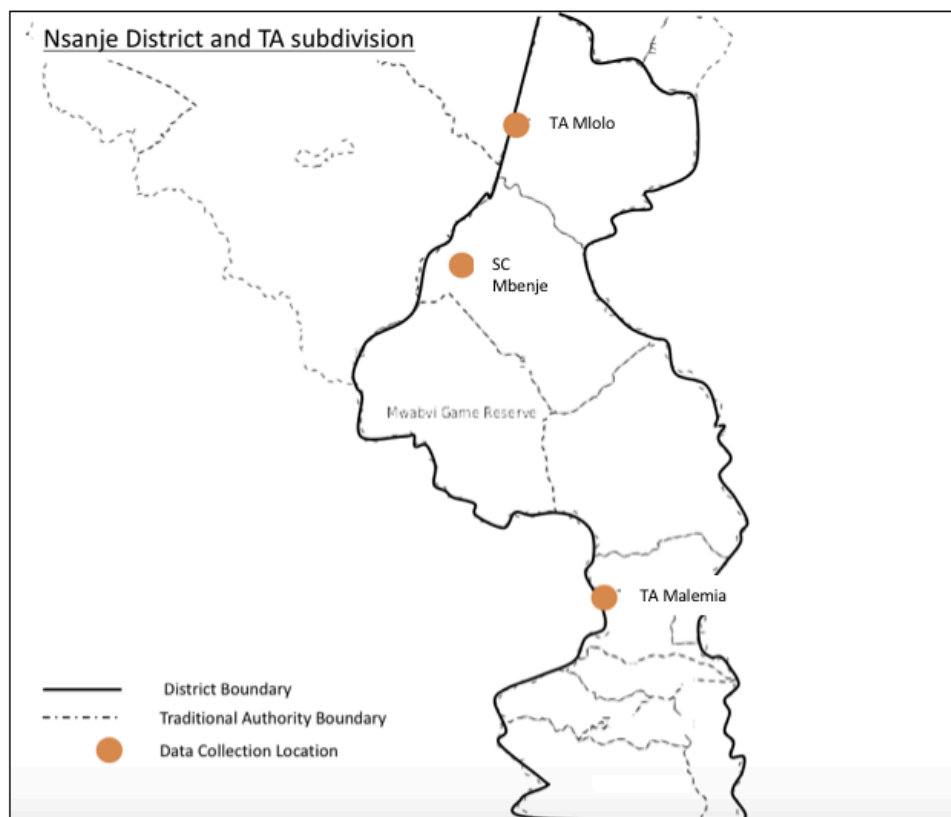


Figure 6: Nsanje district and TA areas



4.3.2. *Content analysis and coding: policy review*

The first stage of empirical working encompassed a gender analysis of relevant international and national policies over time, answering RQ1. This enabled an in-depth understanding of the current gender considerations employed at various scales, and the progress of gender mainstreaming in CCA policies to date. This phase aided in the development of the semi-structured interviews and FGDs question schedules. This policy review phase employed the methodological tool of content analysis.

Content analysis is a systematic and replicable technique for compressing and interpreting words and texts into content categories, based on explicitly set guidelines, known as codes (O'Leary, 2014; Stemler, 2001). It is used to review content rich documents and publications to display and describe the focus of individuals, groups or institutions (Weber, 1990). Furthermore, it is a useful tool for examining trends and patterns in documents, such as policy papers, and to determine trends over time and shifts in ideas (Stemler, 2001). Content analysis is often assumed to be a simple word frequency count, however, what makes this technique rich and meaningful is the use of codes. Codes are categories of words and terms of similar connotation (Weber, 1990). In recent years, with a growing emphasis on gender mainstreaming in political and social forums, content analysis has been used to assess the progress and impact of the integration of the gender dimension on public policy formulation. An example of this is EQUAPOL, a European Union FP-5 funded project, which assessed the integration of gender in policy-making in eight member state countries (Braithwaite, 2006).

This stage of the research built on work conducted by Burns and Patouris (2014) which presented all gendered discussions and decisions made under the UNFCCC negotiations prior to the COP20 meeting held in Lima, Peru in 2014. The gendered content analysis of policies consisted of three phases. In the first phase, documentary collation was conducted using the UNFCCC and other online resources such as UN agencies' and Government of Malawi departmental websites. The period of interest was defined as from 1995, year of the Beijing Platform, where gender mainstreaming was determined as the most important mechanism to empower women in all sectors, until 2016, the year fieldwork was conducted. Policies and decisions published post-2016 were not included in this analysis, as their content did not influence policy implementation, or stakeholder

perceptions of gender during data collection in Malawi. A list of the international and national reviewed policies within the content analysis are listed in Table 5 and have been grouped into the three key topic areas; development, climate change and DRM.

Table 5: International and national policies reviewed

International Policies		National Policies	
1	Development Policies - The Millennium Declaration - The Millennium Development Goals (MDGs) - Agenda 2030 - The Sustainable Development Goals (SDGs) -	1	Governing Strategies - Vision 2020 (1998) - Malawi Growth & Development Strategy II (MDGSII) (2011) - National Gender Policy (2015)
2	Climate Change Policies - The Kyoto Protocol - UNFCCC Decisions - The Paris Agreement	2	Climate Change Policies - Malawi's National Adaptation Programmes of Action (NAPA) (2006) - Malawi's [Intended] Nationally Determined Contributions ([I]NDC) (2015) - Climate Change Policy (2012) - Climate Change Management Policy (2016) -
3	Disaster Risk Management (DRM) - The Sendai Framework for Disaster Risk Reduction (SFDRR) - The Hyogo Framework for Action (HFA)	3	Disaster Risk Management (DRM) - Disaster Risk Management Policy (2015)

At international level, the gender analysis focused on UNFCCC decisions and mandates, the Kyoto Protocol and the Paris Agreement. By analysing these agreements, along with various UNFCCC decisions, this research provided an overview of the progress of gender mainstreaming between 1997 and 2015. Ten national policies were reviewed from Malawi, spanning the last 20 years. These include the country's long-term development policy, Vision 2020 (1998); the medium-term development policy, the second Malawi Growth and Development Strategy (MGDS II) (2011); and the national gender policy (2015). Several national climate specific policies were also reviewed. The research also considered two national UNFCCC documents: Malawi's National Adaptation

Programme for Action (NAPA) (2006) and the Nationally Determined Contributions (NDC) (2015). The National Climate Change Policy from 2012 and its 2016 successor, the National Climate Change Management Policy, were also analysed. Finally, the National Disaster Risk Management Policy (2015) was analysed.

The second phase of the gendered content analysis was an assessment of the gender language used within the reviewed policy documents. To systematically analyse gender within various policies on different scales, a ranking structure was developed to score the level of gender integration. Each policy was assigned a ranking based on key word searches and content analysis. The key words used were: 'gender', 'woman'/'women', 'vulnerable'/'vulnerability', 'social'/'socially'. Other social categories were also considered relevant, as their inclusion within policy lends to a more holistic, socially sound, and intersectional policy. From this, a ranking was assigned to the document that determined the level of gender mainstreaming within the document. This ranking scheme and code explanations are outlined in Table 6. The codes 1 to 4 were adapted from Burns and Patouris (2014), while code 5 has been included to rank the use of intersectional language, in acknowledgment that vulnerability to climate change is not only defined by sex or gender, but rather a wide range of social identifiers such as age, class, race and ethnicity. For a policy to be fully inclusive, these social identifiers should be acknowledged.

Table 6: Gender analysis ranking scheme

Ranking	Meaning	Elaboration
1	Gender Blind	Document does not recognise distinction between sexes
2	Gender included in text (Women as 'Vulnerable Group')	Refers to gender (often reports women as vulnerable). No reference to gender in action plan or implementation
3	Gender Balance	Refers to gender. Makes some call for increased participation of women in project implementation
4	Gender Sensitive	Document mandates the integration of gender norms, roles, and relations in the development of actions, policy, and implementation
5	Intersectional	Document recognise gender inequality in addition to other forms of social discrimination

(adapted from Burns & Patouris, 2014)

It is acknowledged that this ranking process only delivers a surface-level analysis, and does not provide an in-depth review of implementation strategies or actions of policies. As a result, the third phase of the gender analysis evaluated the processes, plans and actions outlined to achieve the stated gender considerations in policies. This evaluation drew on the resources, agency and achievement framework for gender equality discussed by Kabeer (1999), and Denney (2016) in the context of sustainable policies. The evaluation used thematic analysis to examine the gender considerations made within the objectives, finance, implementation, capacity, and transparency sections of policies. A reflection on the implications of the inclusion and exclusion of gender considerations provides a greater insight into the broader impact of each policy reviewed.

4.3.3. *Semi-structured interviews*

It is widely accepted that interviews are one of the most reliable methods for ascertaining opinions, motivations, perceptions and attitudes (Yin, 2014; Kvale & Brinkmann, 2009; Bell, 2006). Interviews allow participants to share their perceptions on complex, value-laden issues while also allowing highly personalised data to be obtained (Gray, 2004). Semi-structured interviews use open-ended questions that enable an interviewer to follow up, clarify, investigate and probe responses further to gain knowledge-rich data (Bell, 2006). Semi-structured interviews with key stakeholders can give insight into the inner workings of organisations, groups and individuals. Four key stages were involved in carrying out semi structured interviews for this research. Firstly, developing a topic guide; secondly, selecting respondents; thirdly, undertaking the interviews; and finally, developing an interpretive framework to understand interview content in a more conceptual way to uncover trends and key themes (Gaskell, 2000).

Semi-structured interviews were conducted with relevant stakeholders working on climate change and disaster issues in Malawi in order to answer RQ2. Interviews were designed to gain insight into stakeholders' practical knowledge of gender and climate change issues, their perceptions of gender relations, and how these perceptions impact on the implementation of gender considerations within CCA activities. To understand gender relations between the national and subnational scales, a total of 25 interviews

were conducted with stakeholders across the national (12) and subnational (13) scales. Malawi's state functions through a decentralised government, so while policy is formed at the national scale, implementation takes place at the subnational, or district, scale. Therefore, understanding how gender is viewed and communicated through these scales is imperative to gaining knowledge on the flow of gender mainstreaming. Interview participants represented key actor groups, including donors, government, international non-governmental organisations (INGO), national non-governmental organisations (NGO), civil society organisations (CSO) and senior traditional leaders (TA). A list of the participants is outlined in Table 7. Also presented in Table 7 is the identifiers of each participant, assigned during transcribing, where signifier 'N' indicates a national level actor and signifier 'D' indicates a subnational, or district, level actor. While a gender balance in interview participants was sought, this proved difficult and men were predominantly interviewed, making up 75 percent of national and 85 percent of subnational interviewees. This imbalance may have implications on gender bias in the research results and its emergent themes. To temper this possibility, the sex of participants is noted in Table 7 and across the empirical results.

Table 7: Outline of national and subnational interviewees and identifier codes

Code	Organisation Type	Sex	Code	Organisation Type	Sex
N/NGO_1	CSO	F	D/GOV_1	Government	M
N/NGO_2	INGO	F	D/GOV_2	Government	M
N/NGO_3	INGO	M	D/GOV_3	Government	M
N/NGO_8	INGO	M	D/GOV_4	Government	M
N/NGO_4	NGO	F	D/GOV_5	Government	M
N/NGO_5	NGO	M	D/GOV_6	Government	M
N/NGO_6	NGO	M	D/GOV_7	Government	M
N/NGO_7	NGO	M	D/NGO_1	NGO	F
N/GOV_1	Government	M	D/NGO_2	CSO	M
N/GOV_2	Government	M	D/NGO_3	NGO	M
N/Donor_1	Donor	M	D/NGO_4	NGO	F
N/Don_2	Donor	M	D/TA_1	Senior Chief	M

	D/TA_2	Senior Chief	M
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Participants were chosen through identification of active stakeholders in CCA during the content analysis phase, and through observation of organisations working with communities in the Lower Shire Valley. Techniques of snowballing and opportunistic meetings were also drawn on to gain access to interviewees. All interviews were conducted in person, in Malawi during the two periods of fieldwork in September 2015 and April – July 2016. Drawing on interview guidelines from Kvale and Brinkmann (2009) and the identification of themes from literature and policy review phases, an interview schedule was developed to guide interviews. An overview of the schedule is presented Table 8 (the interview schedule is presented in full in Appendix A). It should be noted that although this schedule was followed during all interviews at national and subnational scale to ensure a level of comparability, interviews were kept conversational to obtain data rich responses, discussions and clarifications (Bell, 2006; Davies, 1999). All interviews were recorded, excluding two national level actors who requested not to be. Recording the interviews allowed for full engagement in the discussion, to obtain the desired data-rich responses. In these incidences where interviews were not recorded, notes were taken and this was considered during analysis.

Table 8: Interview schedule

<i>Semi-structure interview topic guide</i>	
1	Introduction; organisations, affiliation and position – ice-breakers and position identification of interviewee
2	Identification of major challenges in Malawi – section to discuss interviewees of key challenges in Malawi (e.g. poverty, climate change, literacy, health). Specifically challenges for communities in Lower Shire Valley.
3	Views of climate change and disasters – specifically discussing their views of climate change in Malawi, and specifically in Lower Shire Valley. Their views on the impact of climate change and who they determine as vulnerable groups.
4	The role of CCA – Questions surrounding CCA activities conducted in Lower Shire Valley, who are leaders in this, the progress and challenges of implementing CCA.
5	The influence of international policies such as Paris Agreement, NDC on climate action – Questions on international policies, their use and influence in CCA activities.
6	Views of gender and climate change – obtaining views and perceptions of gender, achieving gender equality, their understanding gender mainstreaming in CCA.

4.3.4. *Focus group discussions*

Focus group discussions (FGDs) are similar to semi-structured interviews, as they rely on interaction and provide a forum for participants to share and discuss their views and experiences (Bell, 2006; Morgan, 1996). FGDs do not aim to reach a general group consensus, rather their aim is to extract as much information as possible (Morgan and Krueger, 1993). The extent of consensus or conflict among participants can provide additional insight and data (Morgan & Krueger, 1993). Through planned themes, activities and their resulting discussions, a comprehensive understanding of communities can be built through tapping into interpersonal communications that can highlight cultural values and norms (Wilde, 2001; Kitzinger, 1995). Over the last two decades, development agencies and scholars have increasingly collected data using participatory approaches in attempts to gain more interpretive insights into issues (Lucas & Cornwall, 2003).

It was determined that FGDs were the most suitable method to collect rich data to understand the complexities of the climate change experience of amongst social groups in the Lower Shire Valley, answering RQ3 and RQ4 (See the FGDs schedule in Appendix B). Similar studies have successfully used FGDs to analyse the role gender plays in experiencing climate change and accessing CCA (van Aelst & Holvoet, 2016; Kakota, et al., 2011). Participatory data collection techniques were used to solicit information on climate risks, sources of livelihoods, availability of resources and gender roles. Activities utilised during FGDs were activity profiles, livelihood profiles, identification and ranking of challenges and adaptation practices. These activities were adapted from the Socio-economic and Gender Analysis Programme Field Level Guideline on Participatory Rural Appraisal (Wilde, 2001). Throughout the FGDs, participants were encouraged and prompted to discuss livelihood challenges and discuss strategies they appropriately employ to respond to those challenges (van Aelst & Holvoet, 2016). These FGDs had an emphasis on the challenges surrounding changing climate.

Conducting FGDs is not without its challenges. As FGDs take place within communities with complex power relations and status, and there is a risk that more dominant voices can override those who are reserved, or those who have differing

opinions (Bell, 2006). This is especially true in a rural, developing-world context, where tribalism and power relations are entrenched in day to day life. For this reason, homogeneity within groups, in terms of age and sex in particular, was considered when conducting FGDs. This was done in order to capitalise on shared experiences and to encourage rich discussion (Kitzinger, 1995). This was viewed as especially important in the discussion of gender issues and power relations within communities. FGDs also measured, as much as possible, various criteria such as: participant status in the community, socioeconomic status and household status. As such, FGDs were broken up into key clusters of analysis, and conducted with female, male, youth and mixed groups. The World Bank (2005) defines youth as between the ages of 15 – 24, however, due to the ethical issue of conducting research with those under 18, this research explored youths between the ages of 18 – 25. Another notable challenge of FGDs is that discussions may be affected by the power relations within the group dynamic, so the views and opinions of participants may be modified to present themselves more favourably to the group (Gavaravarapu, et al., 2009). This phenomenon of altering views and opinions to fit in with a group, along with participant interactions, was of particular interest and the driving force to conduct mixed FGDs. It was felt that relations and interactions amongst communities within the mixed FGDs would shed a more nuanced view of gender relations in the Lower Shire Valley.

Following guidelines for measuring for information saturation (Krueger & Casey, 2000), it was determined that a minimum of 16 FGDs should be conducted; four per key cluster group. Sampling for participation in FGDs used qualitative methods. The village population was divided into clusters according to sex and age categories. From these clusters, the participants in FGDs were largely drawn through opportunistic methods, i.e. people who fit the FGDs demographic were chosen based on their availability and willingness to take part. FGDs were conducted after some time had been spent in an area, allowing time to observe community networks and power relations. In total, 19 FGDs were conducted, and these are outlined, along with each group's identifier code, in Table 9. Five FGDs were conducted with male (signifier M), female (signifier F) and mixed groups (signifier Mx), while four were conducted with youth groups (signifier Y). Generally, FGDs consisted of eight to 12 participants, but occasionally reached as low as four in the case of youth FGDs. All youth FGDs conducted were with mixed groups, due to the availability

of participants between the ages of 18–25. This was the result of a consistent misunderstanding in how youth was defined within communities, where minors under the age of 18 were often selected to participate in FGDs by community contact points. However, only those between the ages of 18–25 were eligible to participate. This impacted on the possibility of conducting sex-disaggregated youth FGDs.

Table 9: Outline of FGDs and identifier codes

Code	Sex	Age	Number of participants	District	Traditional Authority Area
M/FG_1	Male	25 – 65	9	Nsanje	Mlolo
M/FG_2	Male	25 – 65	10	Chikwawa	Makhuwira
M/FG_3	Male	65+	11	Chikwawa	Makhuwira
M/FG_4	Male	25 – 65	8	Nsanje	Malemia
M/FG_5	Male	25 – 65	11	Nsanje	Mbenje
F/FG_1	Female	25 – 65	8	Nsanje	Mlolo
F/FG_2	Female	25 – 65	10	Chikwawa	Makhuwira
F/FG_3	Female	25 – 65	9	Chikwawa	Makhuwira
F/FG_4	Female	25 – 65	8	Nsanje	Mbenje
F/FG_5	Female	25 – 65	5	Nsanje	Malemia
Mx/FG_1	Mixed	25 – 65	12	Nsanje	Mlolo
Mx/FG_2	Mixed	25 – 65	12	Nsanje	Mbenje
Mx/FG_3	Mixed	25 – 65	10	Nsanje	Malemia
Mx/FG_4	Mixed	25 – 65	11	Chikwawa	Makhuwira
Mx/FG_5	Mixed	25 – 65	11	Chikwawa	Kasisi
Y/FG_1	Mixed	17 – 25	9	Nsanje	Mlolo
Y/FG_2	Mixed	18 – 22	6	Nsanje	Mbenje
Y/FG_3	Mixed	17 – 19	6	Chikwawa	Ngabu
Y/FG_4	Mixed	17 – 22	10	Chikwawa	Kasisi

4.3.5. *Household surveys*

Surveying is the process of collecting quantifiable data through asking the same questions to a range of individuals related to the research topic and objectives (O'Leary, 2014). By studying a representative sample of people, surveys aim to discover the commonality or discord between subjects (Gable, 1994). Surveys are said to be complementary in case study data collection methods because they can reduce bias and contribute to greater confidence in the generalisation of results (Vidich & Shapiro, 1955).

Survey style assessments to gather data on those vulnerability to climate change are often used (Busby, et al., 2011; Deressa, et al., 2008; Sullivan & Meigh, 2005; Adger, 1999).

A household survey was determined to be an appropriate data collection tool to complement the FGDs in answering RQ3 and RQ4. Surveys were used to gain a wider perspective of climate change and gender issues within the Lower Shire Valley. This was done to prevent a homogenous view of social groups and provide reflections on the rich data collected within the FGDs. The household survey was developed drawing on previously developed vulnerability indicators: the Climate Vulnerability Index (Sullivan & Meigh, 2005) and the Women’s Empowerment in Agriculture Index (Alkire, et al., 2012). The household survey consisted of six thematic areas, these are summarised in Table 10 (the household survey is presented in full in Appendix C)

Table 10: Thematic areas of household survey

<i>Survey thematic areas</i>	
1	Basic Information – including household characteristics, marital and family status
2	Access to services – including education, healthcare, employment
3	Agricultural activities – crops grown, access to irrigation, crop yield, sale of crops
4	Social Capital – household and community responsibilities and decision-making
5	Identifying: risks and hazards
6	Experiences and views of weather and climate change

The research planned to collect as many surveys as possible within the restrictions of time and financial capacity of the project. The sampling frame for survey participants occurred through systematic sampling, where the “*nth*” household method was enlisted to identify households (Harell & Bradley, 2009). During data collection, every second household per village was called upon, the scheme for this was identified each day within a given area. If nobody was home, or the household was unwilling to take part, the next house was asked to participate. During the period of fieldwork in the Lower Shire Valley 352 surveys (approximately 0.05% of the projected 2018 population) were collected, collated and analysed.

4.3.6. *Demographics of research participants in the Lower Shire Valley explored.*

Table 11 provides an overview of some key attributes of the community in the Lower Shire Valley, who participated in the household surveys. Some trends in data are explored in this section.

Table 11: Demographic distribution of research participants (from survey data)

	Male (n 122)				Female (n 230)			
Age brackets	18 – 25	25 - 45	45 – 65	65+	18 – 25	25 - 45	45 – 65	65+
Total	13	49	35	25	39	98	41	52
Percentage	10%	40%	29%	20%	17%	43%	18%	22%
HH status:								
<i>MHH</i>	13	49	35	25	29	56	17	38
<i>FHH</i>	0	0	0	0	7	42	24	12
<i>Other</i>					3			3
Mobility								
<i>Relocated</i>	10	35	28	17	26	63	32	39
Percentage	76%	71%	80%	68%	66%	64%	78%	75%
Education								
<i>Av. years in school</i>	8	7	5	3	5	4	5	2
<i>Percentage with no years in school</i>	0%	14%	43%	28%	23%	54%	70%	76%

Age

The age range of survey participants is presented above in Table 11. The age distribution is largely the same between male and female participants. The youth group (18 – 25), in both male and female groups has the lowest participation amongst all age groups. The age group 25 – 45 has the highest participation in both male and female groups. The only variation between age groups within male and female participation is within the age groups 45 – 65 and 65+. In the female age group 65+ has the second highest representation, while the male age group 45 – 65 has the second highest representation.

Household status

Female headed households:

18 - 25: Of the seven female headed households (FHH), three women are married and identify as heads of household. The remaining FHH identify as widowed (2); divorced (1); or separated (1). Of the identified FHH who are married, only one determined that they were the main decision-maker within the household, the remaining two women stated that decisions were made jointly or that their husband made decisions. The results show that 29 percent of this age bracket state customary homestead and 14 percent state that their lineage is patrilineal.

25 - 45: Of the 42 FHH, 13 married women identified as heads of household. The remaining FHH identify as never married (4); divorced (18); separated (3); or a wife to a polyamorous husband (1). Of the 13 married women who self-identify as heads of household, only one states that she makes all household decisions. The other female married heads of households determine that their husband makes decisions, or they are made jointly.

45 - 65: Of the 24 FHH, four married women identified as heads of household. The remaining FHH identify as divorced (19) or separated (1). All four married women who self-identify as household heads did not answer questions surrounding decision-making within the home. The majority (17) of this age group present the lineage of homestead as patrilineal or simply customary.

65+: Of the 38 FHH, two married women identified as heads of household. The remaining FHH identify as widows (33); separated (2); or never married (2). The married women who self-identify as household heads both claim that decisions are made jointly with their partner.

Mobility

It is evident from Table 11 that there is a high level of local migration within all sex and age brackets. This mobility is directly related to the severe flooding experienced within the Lower Shire Valley in 2015, with most participants reporting having relocated in the last 12 months (at the time of data collection). The mobility is higher than expected in

normal circumstances. However, there are some variations seen between sex and age brackets. More men report having relocated; 75 percent of all male participants report having moved, while 69 percent of female participants report moving location. In addition to this, when analysing the mobility within age brackets, the most mobile group are men in the 45 - 65 age bracket (80%) and women (78%). In both younger (18-25; 25-45) and older groups (65+) the reported mobility reduces.

From the FGDs, it is apparent that two different types of resettlement took place in the aftermath of the 2015 flooding disaster. Firstly, communities which had been displaced to temporary emergency settlements, but wished to return to their original homes. These communities remained in emergency settlement during data collection in 2016, over a year after the flooding event. Secondly, some members of the community had been permanently resettled in other villages or previously unhabitated areas, and were in the process of building new homes, often supported by government and NGOs. The complexity of resettling within traditional practices and customary lands has created disruption in the distribution of CCA.

4.3.7. Data analysis

The first stage of data analysis was considered to be the collation and clean-up of data collected during fieldwork. This consisted of developing a database for household survey input, transcribing all interviews and FGDs, and processing field notes.

All 25 semi-structured interviews and 19 FGDs were transcribed. The interviews were transcribed verbatim, recording expression and interviewee tone, which contributed to the reliability and depth of data. FGDs were also transcribed in full, however, as FGDs were facilitated through a research assistant, the transcripts do not consist of the direct quotes from FGDs participants, but rather a translated summary. As such, some nuance was lost during this process. FGDs were all recorded, and transcripts were checked by an independent research assistant, who was not present during FGDs. This ensured the accuracy of the transcripts. The research software package Nvivo was used to conduct conceptual and descriptive coding of transcripts (Welsh, 2002). Coding took place in two phases. The first phase was crude, using *a priori*, or deductive, codes (Stuckey, 2015) drawing on the interview schedule to sort and create initial groups within

the dataset. The second phase used emergent coding and allowed concepts and themes to evolve from the data and from emerging connections of *a priori* codes (Stuckey, 2015). Nvivo was also used to record memos, which described and defined codes to ensure consistency throughout the coding process (Saldaña, 2013).

Thematic analysis was drawn upon to further analyse all qualitative data. Thematic analysis is described by Braun and Clarke (2006, p. 80) as “a poorly demarcated and rarely-acknowledged, yet widely-used qualitative analytic method”. Thematic analysis is described as a method for identifying and analysing themes, or patterns, within data, which can produce trustworthy and insightful findings (Braun & Clarke, 2006). The method of analysis is flexible, allows for theoretical freedom and can be modified for the needs of a various studies (Nowell, et al., 2017). Thematic analysis was considered the most appropriate method to analyse data because it allowed the researcher to examine various participant perspectives, across scales, and generate unanticipated insights (King, 2004).

All surveys were stored in a database using Microsoft Excel. Analysis of survey data was conducted in Excel, where graphs and visualisations were prepared to present data clearly. The survey data was used largely to complement data derived from the FGDs, it was also used to provide a broader overview of the gender-climate situation within the Lower Shire Valley. Finally, the analysis process continued through stages of writing, discussions with supervisors and editing chapters. This is particularly true of the discussion chapter (Chapter Eight), which evolved throughout the writing of results chapters where new connections were made and explored in relation to broader theory.

4.4. Researcher reflections

The data collection and analysis methods drawn upon throughout this research, largely qualitative, leave room for subjectivity and research influence at every stage. Qualitative research, unlike quantitative research, which works to ensure neutrality, receives criticism due to this potential subjectivity (Pillow, 2003; Morgan, 1996). As such, presenting researcher reflexivity and positionality has become increasingly important in

the communication of research methods (Berger, 2015). The reflection of personal views and experiences is especially relevant when conducting research on gender in a developing world context, as personal feminist views can often conflict with traditional and cultural views in rural communities such as the Lower Shire Valley. Hence, a strategy of self-monitoring of positionality informed all stages of this research, monitoring for biases, personal beliefs and experiences that may negatively influence the datasets and quality of analysis.

4.4.1. *Reflexivity and positionality*

As a Westerner, my positioning on gender and gender equality is largely informed by Western views. Western feminism has been criticised as narrow and exclusive, ignoring the diversity of women's experiences (Dixon, 2011). From the outset, I worked to ensure Western views and bias did not negatively influence the findings of this research. In doing this, an intersectional feminist lens was employed for the research to consider diversity and reject the view of women, and 'other' societies, as homogenous groups. Intersectional theory is grounded in an understanding of power and knowledge production, it adopts a distinctive stance and dynamic approach where systems of race, gender and class converge (Kaijser & Kronsell, 2014; MacKinnon, 2013; Davies, 2008). The empirical application of intersectionality has been debated due to its context specific nature and difficulty in developing a clear methodological framework (Kaijser & Kronsell, 2014; Cho, et al., 2013; Davies, 2008). However, to understand and to analyse the distribution of CCA, an intersectional framework is necessary to assess power relations and institutional practices that influence access to adaptation throughout scales. Recent climate change and social impact research have opted to use an intersectional lens, confirming its suitability for this research (van Aelst & Holvoet, 2016; Osborne, 2015; Kaijser & Kronsell, 2014). The view of women as vulnerable was commonly noted throughout the literature and policy review phase. By drawing on an intersectional framework during fieldwork, this allowed the researcher to study climate change vulnerability in a more nuanced way. A more nuanced approach considered the interaction of other social categories, and prevented a predetermined view of women as vulnerable from clouding the scope of the fieldwork.

My geographical, cultural and physical positioning placed me as an 'outsider' within rural communities in Malawi. Numerous steps were taken to put participants at ease regarding my presence within their community. Firstly, time was spent within the village before beginning in-depth data collection. Secondly, seeking permission from village leaders to conduct the research was deemed important and therefore sought. Traditional leaders in rural Malawi are highly respected and viewed as gatekeepers to communities (Eggen, 2011). As such, if research was not approved by leaders it is likely community members would not be happy to participate. Other efforts were made not to disrupt cultural and social norms, such as wearing appropriate dress. Women in rural areas in Malawi wear traditional wrap skirts known as *chitenje*, it is not common for women to wear trousers. Hence, while conducting fieldwork at village level a *chitenje* was worn daily. This was done to respect the culture and to put participant women at ease during my presence. FGDs were conducted in informal and relaxed settings to allow for participants and researchers to interact freely.

Nonetheless, my presence as an outsider did cause some challenges throughout data collection in the Lower Shire Valley. At the time of data collection there was a notable sense of researcher fatigue within communities. This was particularly observed in areas greatly impacted by the floods in 2015, and during the heightened food insecurity of 2016. Communities had seen an influx of researchers, reporters and development workers into the area, which resulted in communities feeling less inclined to participate in research, as participation in such studies was not improving their quality of life. One man approached to participate in the research was particularly hostile and confrontational, and held the view that the community was over-researched, that aid workers and researchers arrived in the area to assess the vulnerability of the area but failed to provide necessary resources to the community to overcome this vulnerability. This has been acknowledged as a key issue within social science, however it is considered a largely unexplored phenomenon (Sukarieh & Tannock, 2012). However, Clark (2008) does find that a key reason for research fatigue is that communities feel their involvement in research has little impact on their circumstances. To address this, it was made clear that research conducted was part of an academic study and that no direct development benefits would be received for participating. In addition, the scope and potential benefits of informing policy-makers and government to improve access to adaptation was explained in full. Once this was

understood, the majority of community members agreed to participate. Any members of the community who were unhappy to participate were thanked for their time and participation ended.

4.4.2. Research ethics

This research was granted ethical approval (See Appendix D) by the School of Natural Science Ethics Committee. This section outlines some ethical issues surrounding this research. Furthermore, ethical clearance was granted in Malawi from the National Committee on Research in the Social Sciences and Humanities. This was obtained prior to conducting fieldwork.

Many potential ethical issues needed to be considered throughout this research project, as with all human based studies. This research was carried out in accordance with Trinity College Dublin's over-arching aims of ethical research principles: respect for the individual subject or population; beneficence and absence of maleficence; and justice. Every effort was made in the project planning, implementation and dissemination to ensure these principles are maintained.

Ethical research in developing countries must be rigorous and thorough in order to minimise inequalities, social and cultural differences. It was imperative that research was explained in a clear and accessible format for potential participants, to ensure an independent and informed decision on whether to participate. Furthermore, it was essential that, during fieldwork, there was an adherence to social and cultural norms of the Lower Shire Valley.

Gender is an extremely complex and sensitive matter to study. During fieldwork, a fundamental ethical consideration was how to undertake research on this topic in Malawi, a country where traditional values on issues such as gender remain in place. It was vital that both male and female participants were comfortable participating in the research and every effort was made to ensure this. During fieldwork, a male and female research facilitator were employed to assist with translations and work conducted at the community level. Research assistants acted as facilitators for fieldwork were recruited through colleagues and contact made on previous trips to Malawi.

To ensure that participants were happy, comfortable and fully informed throughout their participation, a detailed introduction of the researchers and the project was provided. This included a full discussion on consent and ensured participants were aware they could quit at any point, and that their data would not be used in analysis. It was only after this full discussion that consent forms were signed by all participants (Appendix E). It was found that most participants at the community level were illiterate and unable to sign their consent. To ensure appropriate consent, a witness was present for the discussion and outline of requirements, and the participant then verbally agreed to participate, with a witness required to sign the consent form.

Furthermore, as FGDs involved interaction and discussion with community members, additional precautions were carried out to allow for open and honest discussions. Firstly, FGDs took place in private with only participants and researchers present. Village leaders and other authoritative figures were asked not to attend or to remain outside for the duration of FGDs. Secondly, although focus groups did not discuss very personal issues, all participants' data remained anonymous and confidential. In addition to the researchers ensuring anonymity at project level, group confidentiality was discussed at the outset of FGDs. All participants of the focus group were encouraged to keep information shared among the group and respect confidentiality.

The results and key findings, answering individual researcher questions are presented in the following three chapters. Each of these chapter focuses on a sub-unit of the embedded case study in response to a specific research question.

5. Gender analysis of international and national CCA policy

5.1. Introduction

This chapter analyses the extent to which gender considerations in international policy have influenced gender mainstreaming in CCA policies and actions in Malawi, answering RQ1: To what extent do gender considerations in international climate change policy influence gender mainstreaming in CCA policies at national scale in Malawi? To do this, the evolution of gender considerations in key policy areas will be examined over time. It is important to note that clear progress has been made in the inclusion of gender considerations at the international scale within the new policies adopted in 2015, while many national scale strategies remain influenced by policy published in before 2015. It is imperative to understand how gender is addressed within these most recent policies, compared to their predecessors. This chapter is broken down as follows: Firstly, the progress of gender considerations in relevant policies across international and national scales within the timeframe of interest (1995 – 2016) is presented. Secondly, a detailed insight into gender considerations of key international policies reviewed is presented. Thirdly, the gendered elements of key governing strategies and overarching policies in Malawi are presented. Finally, the chapter will outline the current state of gender mainstreaming in key CCA policies in Malawi, and compare this to international policies and strategies.

5.2. Gender analysis: Policy progress over time

The key policies reviewed within this gender analysis were identified through a preliminary review of UNFCCC activities and the identification of key influencing policies within governing structures at national level in Malawi. The graph (Figure 7) shows three timelines: the progress of gender mainstreaming within international policies; key years identified as important for the progression of gender equality; and the progress of gender mainstreaming within national policies in Malawi.

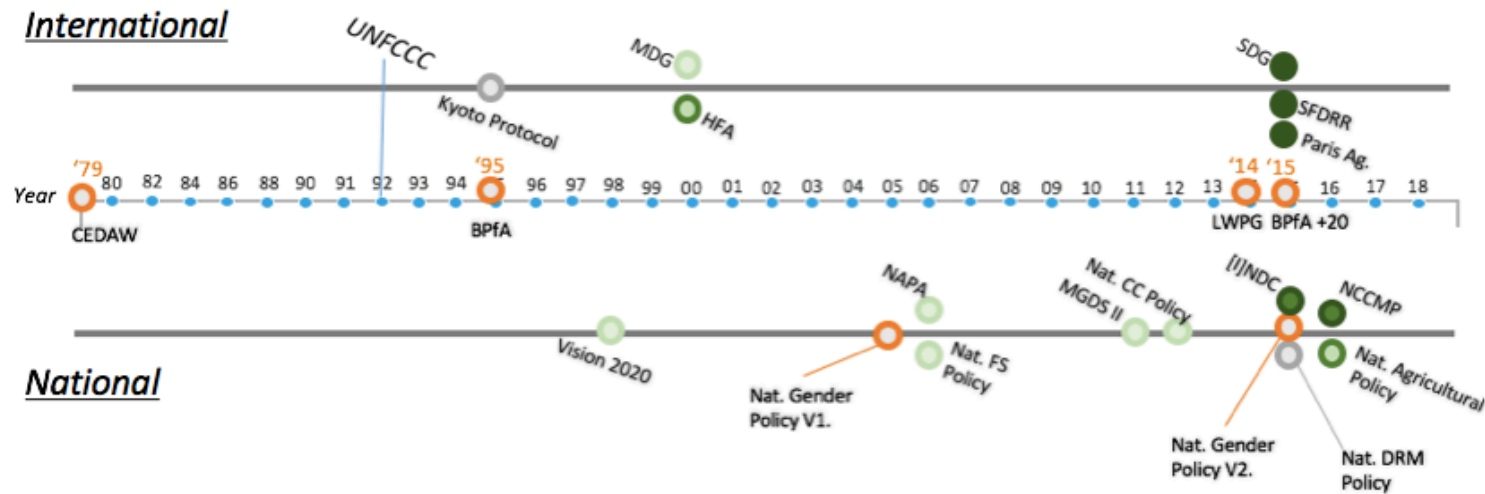
The years identified as seminal for gender mainstreaming were identified as 1979, 1995 and 2015. The UN Convention on the Elimination of all forms of Discrimination against Women (CEDAW) was adopted in 1979 by the UN General Assembly and remains an international bill of rights for women. It consists of 30 articles, which define what constitutes as discrimination against women, and established an agenda to eliminate such discrimination (UN Women, 2000). CEDAW is considered particularly noteworthy because it was ratified by an unprecedented 134 countries, although 51 countries ratified with reservations (Berkovitch & Bradley, 1999). Malawi ratified CEDAW in 1987. Despite this, it has not been incorporated into Malawian domestic law as Malawi is a dualist state which requires the translation of international law into domestic law (OHCHR, 2015). Nonetheless, it is a key agreement of reference for numerous policies, including Malawi's 2015 National Gender Policy.

In addition, 1995 was identified as a relevant year for this timeline as the BPfA was established, with 189 UN member countries committing to achieving gender equality (Cornwall & Edwards, 2015). Finally, 2015 was identified as relevant in this timeline because it marked twenty years since the BPfA and was noted as a point of reflection on progress to date by the international community. This year also saw a further 15-year commitment to gender mainstreaming to achieve equality in BPfA+20 (UN Women, 2015). Malawi was a signatory, without reservations, of the BPfA in 1995.

Figure 7 shows that, internationally, there has been an upward trend of inclusion of gender considerations within the three key policy areas (development, climate change and DRM) reviewed. The Kyoto Protocol, developed shortly after the BPfA, is the only reviewed international policy that is 'gender blind' (ranked 1). Both the Millennium Development Goals (MDGs) and the Hyogo Framework for Action (HFA), both consider women and gender to varying degrees: viewing 'women as a vulnerable group' (ranked 2) and calling for a 'gender balance' (ranked 3) in activities respectively. All three policy areas reviewed launched successor agendas in 2015: the Paris Agreement; the Sustainable Development Goals (SDGs); and the Sendai Framework for Disaster Risk Reduction (SFDRR). These agendas were all launched during the time of reflection on 20 years since the BPfA. This provided an opportunity to reflect on the progress of gender mainstreaming to date and established more effective gender perspectives within these

newly created agendas. The language in all three 2015 international agendas are considered 'intersectional' (ranked 5) within this timeline, as gender is not only considered within the main objectives, but other social categories are also identified as important. However, these agendas are not without their limitations. These are discussed in following sections of this chapter.

Figure 7: Timeline of key policies and progress of gender mainstreaming



Gender Policy	Relevant gender policy
Gender Blind	Document does not recognise distinction between sexes
Women as vulnerable	Refers to gender (or women as vulnerable). No reference to gender in action plan or implementation
Gender Balance	Refers to gender. Makes some call for increased participation of women in project implementation
Gender Sensitive	Document mandates the integration of gender norms, roles & relations in actions, policy & implementation
'Intersectional'	Document recognise gender inequality in addition to other forms of social discrimination

The timeline of progression of gender considerations in national level policies in Malawi has not advanced at the same pace as international policies. This is reflected in Figure 7. The timeline shows that policies formed between 1998 and 2012 did not advance in the gender language used. All policies reviewed over that period viewed 'women as a vulnerable group' (ranked 2). Policies developed from 2015 onwards, excluding the national DRM policy, have made positive strides with the gender language used, most notably within the 2016 National Climate Change Management Policy which is considered 'gender sensitive' (ranked 4). From the policy review, it was observed that the national policy formation relies heavily on guiding policies from international, regional and national governing strategies. The gender language used throughout policies directly reflects these influencing documents. The two governing strategies in Malawi, Vision 2020 (1998) and MGDS II (2011) make limited reference to gender or women. Post-2015 national policies, although influenced by 'intersectional' international policies, remain guided by these national documents. This may be a reason for a lag in the transfer of gendered language.

The timeline (Figure 7) and analysis of the transfer of gender language over time and scales provide a useful insight into the influence which international policies have on national policy formation. However, this analysis provides little insight into the implementation of gender actions or their outcomes. Hence, a further analysis of the context in which gendered terms are used within policies was conducted. This is presented in the following sections of this chapter.

5.3. Gender analysis: Progress in international policies.

This section presents the detailed results from the gender analysis of both new and preceding international policies from the three key policy areas.

5.3.1. Gender in development policies: The Millennium Development Goals and the Sustainable Development Goals

As seen in the timeline (Figure 7), there has been progress in the inclusion of gender considerations within the development policies reviewed: the MDGs (2000 – 2015) and the SDGs (2015 – 2030). The first phase of the gender analysis conducted found the MDGs viewed ‘women as a vulnerable group’ and was ranked 2 accordingly. The SDGs ranked as 5 because of ‘intersectional’ language used within the overall objectives of Agenda 2030.

The MDGs are considered historic as they mark a period of global mobilisation to achieve a set of global goals and social priorities (Sachs, 2012). They were particularly helpful in mobilising public support for development aid (Fukuda-Parr, 2016). There were 189 signatories to the MDGs as part of the Millennium Declaration at the United Nations Millennium Summit in 2000. They had a North-South focus, and were developed by bureaucrats driven by development ministries and heads of development agencies with limited consultation with other stakeholders (Fukuda-Parr & Hulme, 2011). The eight goals outlined in the MDGs aimed to eradicate poverty; achieve universal education; promote gender equality and empower women; reduce child mortality; improve maternal health; combat HIV/AIDS, malaria and other diseases; ensure environmental sustainability; and develop a global partnership for development.

The Millennium Declaration, the document through which the MDGs were launched, referred to gender only twice. Both references are in broad statements. Firstly, the signatories resolved ‘to promote gender equality and the empowerment of women as effective ways to combat poverty, hunger, and disease and to stimulate development that is truly sustainable’ (United Nations, 2000, p. 5). Secondly, signatories aimed to strengthen cooperation between the UN and national parliament in various fields, including on gender issues (United Nations, 2000). Within the MDGs, Goal 3 focused on the promotion of gender equality and empowerment of women. The Goal was to be achieved through the target of eliminating gender disparity in education, along with indicators of women’s increased participation in waged employment and representation in national parliaments. It was heavily criticised due to its narrow view of only gender inequality in economic progress, rather than tackling gender inequality in political, economic, social and cultural arenas (Chopra & Müller, 2016; Kabeer, 2005; Unterhalter,

2005). Critics stressed that the MDGs fell short of the ambitious Millennium Declaration, and in doing so, compounded silos rather than addressing the interconnectedness of vulnerabilities which people face (Sen, 2013). The target period of the Millennium Declaration expired in 2015. MDG3 did not achieve all its targets, however, progress was made in all areas the goal addressed. In 2015, the UN reported the key areas of progress: Firstly, more girls attended schools compared to pre-2000, and the report stated that developing regions achieved the target of eliminating gender disparity at all levels of education. Secondly, the 2015 report stated that women made up 41 percent of paid workers compared to 35 percent in 1990. Thirdly, women gained increased parliamentary representation in nearly 90 percent of countries as compared to figures from the previous 20 years (United Nations, 2015a).

Although billed as a successor framework to the MDGs, the SDGs differ in purpose, concept and politics, and are considered more nuanced and complex compared to the MDGs (Fukuda-Parr, 2016; Esquivel & Sweetman, 2016). Firstly, they were the outcome of a three-year long negotiation, which included diplomatic and multi-stakeholder debates, and resulted in the three areas of sustainable development (social, environment and economic) being incorporated in the agreement. Secondly, the SDGs were developed as a global agenda, which moved away from traditional development aid perspectives into a global development and cooperation policy (Bodenstein, et al., 2017; Fukuda-Parr, 2016). There are 17 goals, comprising of 169 targets which set out to achieve the aims of Agenda 2030. At the global level, the 48th UN Statistical Commission approved a list of 244 SDG indicators in March 2017 (EUROSTAT, 2017).

The gender analysis conducted during this research describes the SDGs as ‘intersectional’ (ranked 5). Agenda 2030 and the SDGs pay notable attention to “the voice of the poorest and most vulnerable” and to creating “equitable and universal access to education, health care and social protection” (United Nations, 2015b, p. 3). In addition, the Agenda reaffirms that all states must respect, protect and promote human rights “without distinction of any kind as to race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth, disability or other status” (p.6). The text outlines whose needs are addressed throughout the Agenda and Goals (p. 7):

“People who are vulnerable must be empowered. Those whose needs are reflected in the Agenda include all children, youth, persons with disabilities (of whom more than 80 per cent live in poverty), people living with HIV/AIDS, older persons, indigenous peoples, refugees and internally displaced persons and migrants”.

In addition to the specific Goal (SDG 5) dedicated to gender equality, there are gender targets included in various other Goals (specifically SDG 1, 2, 3, 4, 6, 8, 10, 11, 13, 16, 17). This presents an understanding of the linkages between women’s rights and the achievement of sustainable development through its three dimensions (Bidegain-Ponte & Rodríguez-Enríquez, 2016; Chopra & Müller, 2016). Within the SDGs, there is a continued call for the elimination of discrimination and violence against women and girls, first called for in CEDAW 1979. There is also a recognition of the care economy that women provide through the provision of public services, infrastructure, and social protection; and efforts to ensure women’s full participation and equal opportunity in leadership and decision-making, and access to universal sexual and reproductive health. In addition to a more comprehensive inclusion of gender issues, the SDGs call for the rights of children, youth, the elderly, people with disabilities, indigenous people and migrants to be considered for the achievement of the Goals. Among the 244 SDG indicators, 53 explicitly mention women, girls, gender or sex, including all 14 indicators from SDG 5 (United Nations, 2017; EUROSTAT, 2017).

While the gender analysis conducted as part of this research indicates clear progress of the SDGs as compared to the MDGs in terms of gender language, there are key limitations to the transformative potential within the SDG goals, targets and indicators. Not all indicators are currently measurable, and EUROSTAT (2017) reports that data is only widely available for approximately one-third of the global indicators. As a result, the EU SDG indicator set consists of 100, ready to use, indicators, as compared to the 244 indicators proposed by the United Nations. Scholars have criticised the non-tangible or measurable outcomes of goals and targets (Fukuda-Parr, 2016; Koehler, 2016). Focusing on SDG 5, Koehler (2016) suggests the implementation of the Goal remains vague, with only a few targets and indicators equipped with policy recommendations. The strongest gendered policy targets are those surrounding economic empowerment (Koehler, 2016). It is argued by Esquivel (2016) that continuing to focus on economic resources is not enough to secure women’s livelihoods. Women are overrepresented as

informal workers and it is felt that the SDGs do not challenge the macro-economic and structural drivers of current growth patterns (Esquivel, 2016; Bidegain-Ponte & Rodríguez-Enríquez, 2016). In addition, critics suggest that the SDGs do not challenge current power relations, and that simply creating a 'space at the table' does not create equity in the decision-making process (Esquivel, 2016). Further, Razavi (2016) suggests that there is elitism in the measurements of women's participation, limited to high-level leadership, and excluding women's participation in community and civil society movements. Finally, a key area of criticism is the potential for countries to water-down targets and indicators to suit their national agendas. National monitoring is considered the most important level of monitoring (SDSN, 2015). As a result, countries can define the nature of indicators, specifications, timing, data collection methods and disaggregation to suit national needs and priorities (SDSN, 2015). This can be positive, however, some critics raise concerns that the most transformative goals and targets may be neglected through selectivity and national adaptation (Fukuda-Parr, 2016). Others raise concerns that achieving the SDGs are dependent on political will. This is of particular concern for SDG 5, where not all governments support the ideal of gender equality. This may result in gendered actions being eroded within national implementation and monitoring (Stuart & Woodroffe, 2016). This is further compounded by weak accountability mechanisms (Esquivel, 2016), as it is argued that the responsibility for fulfilling SDG 5 falls squarely on the shoulders of women's rights advocates and allies, as opposed to national governments (Fukuda-Parr, 2016; Razavi, 2016).

Concerns surrounding the SDGs range from an overall uncertainty regarding the actualisation of numerous targets due to their complexity, to more nuanced determinations that the SDGs fail to challenge current power and economic structures that continue to disadvantage the most marginalised in society. Despite these hesitations, the SDGs have made substantial progress in the inclusion of gender considerations. The 'leave no one behind' approach is considered intersectional (Stuart & Woodroffe, 2016). Although not all relevant social categories, such as LGBTQ rights and marital status, are explicitly mentioned, the 'leave no one behind' approach implies a requirement to address inequalities experienced by all marginalised groups, not just the inclusion of gender considerations (Stuart & Woodroffe, 2016). As a result, this research maintains the view of the SDGs as an intersectional policy.

5.3.2. Gender in climate policies and decisions: The Kyoto Protocol, UNFCCC decisions and the Paris Agreement

As seen within the timeline (Figure 7), there has also been progress in the inclusion of gender considerations within the key climate change policies reviewed: the Kyoto Protocol (1997) and the Paris Agreement (2015). The first phase of the gender analysis conducted viewed the Kyoto Protocol as ‘gender blind’ (ranked 1), while the Paris Agreement was considered ‘intersectional’ (ranked 5) due to progressive language used within the overall objectives. The gender analysis of these documents, along with key UNFCCC decisions, are explored below.

The Kyoto Protocol is an international agreement made under the UNFCCC, which committed Parties to acting on climate change by setting binding emission reduction targets at the national scale. The Kyoto Protocol was adopted in Kyoto, Japan in 1997 and came into force in 2005. The Protocol recognised that developed countries were largely responsible for causing anthropogenic climate change from the high levels of greenhouse gas emissions produced since the industrial revolution. It is from this understanding that the Kyoto Protocol (1998, p. 9) placed a heavier burden on developed countries in a principle of “common but differentiated responsibilities”. It focused more on mitigating emissions rather than adapting to the impacts of climate change, or even acknowledging the differentiated vulnerabilities to these impacts. The Protocol makes no reference to gender or women.

Within the Protocol, vulnerability does not extend past a country level perspective. It does refer to the social impacts of climate change, however these social impacts are not presented in detail. It is notable that the Kyoto Protocol was developed during the same period as BPfA, which explicitly states that women and the environment are a critical area of concern. Terry (2009) argued the Kyoto Protocol framed climate change as a problem requiring technical and economic solutions, which made it difficult to establish an entry point to introduce gender equality issues. It is also argued that the Protocol reflected the interest of Annex I, or developed, countries, leaving the interest of those living in poverty and facing the greatest impacts of climate change to be side-tracked or omitted (Denton, 2002). The Protocol reflects the gender blind nature of the

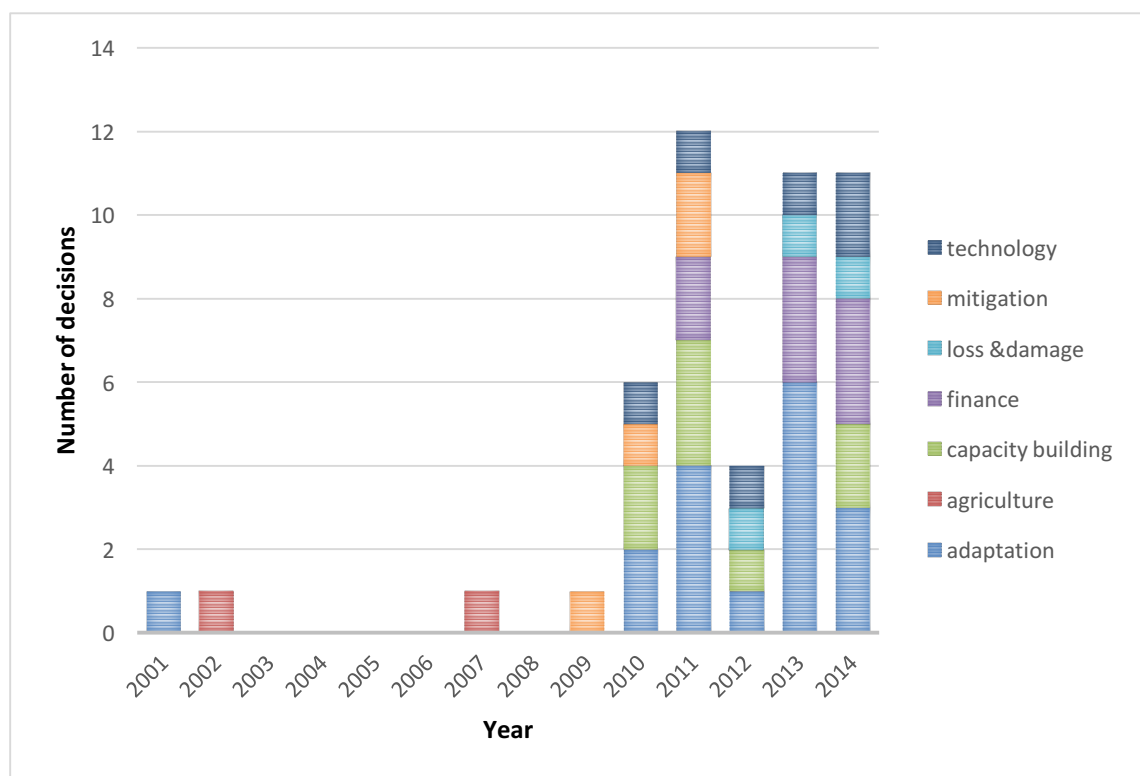
UNFCCC from its inception until the early 2000s, by viewing climate change only through scientific, technical and economic lenses (Röhr, 2007). A paper by Skutsch (2002) affirms this through conducting a bibliometric analysis of prominent climate change journals, the results of which showed only one article (Denton, 2000) explicitly referring to gender-differentiated implications of climate change.

Research conducted in the early 2000's (Villagrasa, 2002; Denton, 2002) suggested gender issues were overlooked in international policy due to women being underrepresented within formal delegations to the UNFCCC. Since then, the UNFCCC has made decisions in a bid to address this, specifically two decisions highlighting the need for gender balance in all UNFCCC bodies (Decision36/CP.7 (2001), Decision23/CP.18 (2012)). Both decisions aimed at improving the participation and gender balance of women in negotiations and in the representation of bodies established pursuant to the Convention or the Kyoto Protocol.

Since the agreement of the Kyoto Protocol in 1997, there has been an increased acknowledgement of the gender differentiated impacts of climate change. There is a growing body of research that focuses on gender and climate change (Wong, 2016; Gabrielsson, 2015; Arora-Jonsson, 2011; Nielsen & Reenberg, 2010). These results have been reflected within UNFCCC decisions. Adaptation decisions contain the most gender considerations (Burns & Patouris, 2014). Prior to COP20 in 2014, there were ten decisions on adaptation which integrated gender, and several which required national adaptation plans to be gender sensitive (Gumucio & Rueda, 2015). The first adaptation decision to include reference to gender was made in 2001 at COP7. This decision (Decision 28/CP.7) regarded the formation of the NAPA, and stated that the NAPAs must be guided by gender equality throughout preparation and implementation (United Nations, 2001). The next gender consideration within an adaptation decision was not until 2010, in The Cancun Agreement (Decision 1/CP.16). Figure 8 shows the range of decisions, subsidiary body reports and conclusions adopted until COP20. It reflects the strong upward trend of gender considerations included within decisions adopted since 2010. It presents the outlook that gender considerations are more important within adaptation, capacity building and finance decisions as compared to mitigation. This can be attributed to the growing acknowledgement of women's differentiated relationship with the environment,

especially in low income countries, and the acknowledgement that for successful adaptation, gender equality needs to be a key consideration at all stages (Terry, 2009).

Figure 8: UNFCCC gendered decisions (data from UNFCCC, 2015a)



Evidence of increased calls for gender participation in decisions and actions of the UNFCCC can be seen in the adoption of the Lima Work Programme on Gender (LWPG) at COP20 in 2014. This was a ground-breaking development for gender and climate change. The programme aimed to improve gender balance and gender sensitivity in all activities under the UNFCCC. It was initially designed as a two-year work package, but was extended at COP22 in 2016 (Decision 21/CP.22) and will be reviewed again in 2019. A call was made to develop a Gender Action Plan, which aimed for the full integration of gender into all UNFCCC proceedings and the increased participation of women at global and national level. To achieve this, key clusters of capacity building were identified: knowledge sharing and communication; gender balance, participation, and women's leadership; gender-responsive implementation; monitoring and reporting (Nyasimi, 2017).

Further strengthening of gender considerations can be seen in the Paris Agreement (Decision 1/CP.16), adopted under the UNFCCC at COP21 in December 2016. The Agreement sets out a global action plan to combat climate change. The overarching

aim is to ensure global warming is kept well below 2°C above pre-industrial levels, with a further aim to limit the increase to 1.5°C. The agreement is considered a breakthrough in progress on climate change, as COP meetings until then had resulted in failed actions and agreements, most notably at COP15 in Copenhagen in 2009. The Paris Agreement differs from the Kyoto Protocol as it takes into accounts human rights and is considered a ‘people-centred policy’ (MRFCJ, 2015). The first phase of this gender analysis described the Paris Agreement as ‘intersectional’ (ranked 5), as seen in Figure 7. Gender is present in the document five times, in broad statement such as:

“Acknowledging that climate change is a common concern of humankind, Parties should, when taking action to address climate change, respect, promote and consider their respective obligations on human rights, the right to health, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and people in vulnerable situations and the right to development, as well as gender equality, empowerment of women and intergenerational equity” (UNFCCC, 2015b p.20)

The Agreement acknowledges the rights of differentiated groups of people, including indigenous groups, people with disabilities, migrants and children. As a result, the Paris Agreement can be considered an intersectional policy, especially when compared to the Kyoto Protocol. Race, class, and sexual orientation are not explicitly mentioned within the text, despite it being widely acknowledged that the marginalised are the most vulnerable to the impacts of climate change. It is these same groups who, along with women, tend to be underrepresented at all levels in climate change action (Kaijser & Kronsell, 2014; Okereke & Schroeder, 2011; Hemmati & Röhr, 2009).

While the preamble of the Paris Agreement calls on Parties to consider the human rights of all people and gender equality within action on climate change, the resulting 29 Articles of the Agreement do not reflect this ambitious call and makes only limited reference to gender within them. Only two Articles call for gender-responsive activities: Article Seven, which deals with adaptation, and Article 11, which deals with capacity building. The Articles call on activities for adaptation and capacity building to be country-driven, gender-responsive and participatory. However, there is no indication of how these gender-responsive activities should be included within national strategies. Moreover, Article Four of the Paris Agreement failed to call for gender to be included within

countries' NDCs, leaving the potential for gender considerations to be excluded within planned activities at the national level. This is compounded by the gender-blind nature of Article 13, on transparency, and Article 15, on implementation and compliance. By failing to create the tools or mechanisms to evaluate the gender-responsive nature of adaptation or capacity building activities, the Paris Agreement leaves opportunities for Parties to exclude gender considerations within national plans. Such limited accountability is a common concern within critiques of gender mainstreaming more broadly (Meier & Celis, 2011; Payne, 2011; Wittman, 2010). In addition to the lack of accountability of gender mainstreaming within CCA activities, the Agreement remains gender blind in terms of climate finance (Article 9). As Schalatek (2009) suggests, fair and just climate financing can only occur when it incorporates gender awareness and strives for equitable climate financing solutions. Climate finance for adaptation aims to address climate inequity through increasing the adaptive capacity and lessening the impacts of climate change for local level actors (Barrett, 2014; Barrett, 2013). Therefore, excluding gender and other social categories in Article 9, which covers climate finance, may result in higher barriers for marginalised groups to access CCA (Jost, et al., 2016; Nabikolo, et al., 2012; Kakota, et al., 2011). While the Paris Agreement ranks highly within the initial gender analysis, the mechanisms designed for its implementation falls short upon further analysis.

Activists and scholars have also criticised the gender inclusion within the Paris Agreement. Although Huyer (2016, p. 3), welcomed the “gender-responsive” nature of the text as “a big step forward”, she claims that the Agreement fails to move beyond the attitude that “women are victims of climate change in need of capacity building support to strengthen their resilience”. In addition, Huyer (2016) further claims that the Agreement does not draw on women’s unique knowledge of the environment and their capabilities to provide mitigation and adaptation solutions. After the Paris Agreement was reached in 2015, numerous women’s activist groups voiced their concern and dissatisfaction with the level of gender inclusions within the text. Organisations, such as the Young Feminist Fund (2016), expressed the view that the Paris Agreement failed to establish the climate change agreement that women’s rights activists had been advocating for.

5.3.3. Gender in disaster risk management policies: The Sendai Framework for Disaster Risk Reduction and the Hyogo Framework of Action

There has been progress in the inclusion of gender considerations within the DRM policies reviewed; the Hyogo Framework for Action (HFA) (2005 – 2015) and the Sendai Framework for Disaster Risk Reduction (SFDRR) (2015). This is represented in Figure 7. The first phase of the gender analysis conducted ranked the HFA as ‘gender balanced’ (ranked 3), while the SFDRR is ranked 5 as ‘intersectional’ because of the language used throughout the policy document.

The HFA was committed to by 168 countries at the World Disaster Reduction Conference held in Hyogo, Japan in 2005. By signing, countries made a commitment to act over the following 10 years to reduce the human and socioeconomic disaster losses, in order to achieve the MDGs. The aim of HFA was “a substantial reduction of disaster losses, in lives and the social, economic and environmental assets of communities and countries” (Wamsler, 2013, p. 253). The HFA was considered a comprehensive approach to disaster management, because prior to the agreement, the management of disasters had been limited to preparedness and response, with little emphasis on the need for risk reduction and recovery (Olu et al., 2016). A gender perspective is taken within the HFA, calling for gender to be “integrated into all DRM policies, plans and decision-making processes” (UNISDR, 2007, p. 4). This equates to the HFA being categorised as ‘gender balanced’ (ranked 3). However, this call for an integrated gender perspective in DRM action is not comprehensively included throughout the ‘Priorities for Action’ or ‘Implementation and Follow Up’ sections, which would be required to meet the objective of integrating gender into all policies, plans and decision-making processes. Gender is considered within sub-categories in two of five priorities for action. Firstly, gender is identified in priority area two, to “identify, assess and monitor disaster risk and early warnings”. In this priority area, it is noted that early warning systems should be “people-centred and take gender into account”, along with demographic, cultural and livelihood characteristics, so that they are “understandable to those at risk” (p.7). Secondly, gender is identified in priority area three, to “use knowledge, innovation and education to build a culture of safety and resilience at all levels”. In this priority area, the HFA calls on the promotion of gender and culturally sensitive training, and ensure equal access to training and education for women and vulnerable groups.

Notably, gender is missing from key areas which would contribute to the actualisation of an integrated gender perspective in DRM actions. This includes priority area one, to “ensure that DRR is a national and local priority with a strong basis for implementation”. Furthermore, there are no gender considerations within the implementation, follow up and resource mobilisation sections of the HFA. These are critical areas where the inclusion of gender considerations could have resulted in the actualisation of gendered actions within national DRM structures.

The SFDRR was agreed in 2015 in Sendai, Japan, with 186 signatory countries. It reinforced the need for a broad approach to DRM (Olu et al., 2016). The Framework is the successor of the HFA, and was the first major agreement of the post-2015 development agenda. Although the gender language within the SFDRR has not changed significantly as compared to HFA, it does rank as intersectional (ranked 5) within this gender analysis. This is due to the broadening of understanding that vulnerability to disasters to include other social identifiers such as disability, age, migrant, indigenous and youth groups.

Although some use of intersectional language was included within the SFDRR, further analysis indicates that the gender considerations within the policy action areas remains limited. On numerous occasions, the policy calls for a “more people-centred” approach to DRM to be achieved through government engagement with relevant stakeholders such as “women, children and youth, persons with disabilities, poor people, migrants, indigenous peoples, volunteers, the community of practitioners and older persons in the design and implementation of policies, plans and standards” (UNISDR, 2015, p. 10). Furthermore, within the guiding principles of the policy it is stated that DRM requires an all-of-society engagement and partnership, which requires a gender, age, disability and cultural perspective to be integrated in all policies and practices, and that women and youth leadership should be promoted. However, within the four priorities for action, gender is only explicitly referenced once, in Priority Four: Enhancing disaster preparedness for effective response to “build back better” in recovery, rehabilitation and reconstruction. Priority Four aims to strengthen disaster preparedness by including lessons learnt from past disasters and including disaster risk reduction into development measures to make nations and communities resilient. In this priority area, the empowerment of women and people with disabilities to publicly lead and promote

gender equitable and universally accessible disaster responses is highlighted. Within the role of stakeholders' section, there is a call for capacity building to empower women for preparedness and to secure alternate means of livelihoods. It also calls for the inclusion of people with disabilities in the assessment of disaster risk and in the design and implementation of disaster risk plans. However, there is no outline of how capacity building should take place, and there is no outline of finance to support these action areas. Furthermore, the call for women to lead and promote gender equitable disaster responses reaffirms the view that gender is a greater aspect of women's lives than men's, and is a derivative of social class (Enarson, 2000). The SFDRR has the potential to place the burden of creating gender equitable disaster responses largely on women, ignoring the all-of-society objective of the framework.

The findings of this international policy and agenda review shows, that there have been considerable improvements in the observation of differentiated experiences in CCA, with a marked increase in the gender language used in international policy. However, the responsive nature and actual potential of policies to achieve gender objectives remains limited.

5.4. Gender analysis: Progress in national policies in Malawi.

For this gender analysis, nine relevant national policies were chosen and assessed. They consisted of Malawi's governing strategies: Vision 2020, the long-term development policy, adopted in 1998, and the Malawi Growth and Development Strategy II (MGDS II), the medium development policy adopted in (2011). The National Gender Policy adopted in 2015 was also reviewed as an important governing strategy. As a signatory to the UNFCCC, Malawi has developed a NAPA (2006) and NDC (2015) under the guidelines of the Convention, and these were reviewed as part of this policy review. In 2016, the National Climate Change Management Policy was approved by the Government, becoming the successor to the 2012 National Climate Change Policy. A gender analysis was conducted on both climate change policies, as at the time of data collection, the National Climate Change Management Policy had not been approved by the Government of Malawi. Reviewing these two climate change policies allows for an understanding of

how gender issues have changed over time, and the influence which international policies adopted since 2015 have had on Malawi's climate change policy framework. Finally, the National Disaster Risk Management Policy of 2015 was analysed.

5.4.1. Gender in governing strategies

Vision 2020 is the long-term strategy for Malawi, published in 1998. It defines the national goals, policies, and strategies of the country. After a period of increased poverty and food insecurity, along with the inadequate provision of social services, policy-makers felt that a long-term guiding strategy would help Malawi regain some the progress it made after independence (Government of Malawi, 1998). The scope of issues covered within Vision 2020 are: good governance; sustainable economic growth and development; vibrant culture; economic infrastructure; social sector development; science and technology-led development; fair and equitable distribution of income and wealth; food security and nutrition; and sustainable natural resource and environmental management (Government of Malawi, 1998).

Women and gender are addressed in six of the ten chapters of the strategy. In Chapter Four: Achieving a Vibrant Culture, the policy identifies challenges in Malawi for the reduction of inequalities, in all forms among social groups, including gender. The second reference to gender is in Chapter Nine: Fair and Equitable Distribution of Income, which identifies a strategic challenge surrounding the fair distribution of income with regards to gender inequalities. The need to address gender issues are further expressed in Chapter Seven: Human Resources Development and Management and Chapter Eight: Achieving Science and Technology-led Development. However, the specific gender issues to be addressed in these areas are not identified or elaborated on. In Chapter Two: Good Governance and Chapter Six: Food Security and Nutrition, the policy presents the need for the increased participation women in politics, in community organisation and irrigation development. There are no references to gender in Chapter Three: Achieving Sustainable Economic Growth and Development, Chapter Five: Developing Economic Infrastructure; or Chapter Ten: Natural Resource and Environmental Management.

Vision 2020 acknowledges that cultural practices can often favour males in education and socioeconomic development, and acknowledges that gender inequality is

apparent in all spheres of the work place. The strategy states the need to mainstream gender in all aspects of development, while also promoting moral values that accord equal opportunities; promote gender equity through affirmative actions; develop gender responsive management systems; conduct gender sensitisation and training at all levels. Nonetheless, the strategy critically fails to fully address the cultural, and social, practices that it acknowledges often favours males. The policy does not elaborate on the moral values or affirmative actions that should be promoted to address these cultural inequalities. The strategy focuses on equal rights to economic resources, education and employment which equates gender equality as equal opportunities between men and women (Esquivel, 2016). This does not address the inequality in power relations within all aspects of livelihoods in Malawi, nor does it call for a gender balance throughout policy actions. Hence, the policy is considered to view 'women as vulnerable' (ranked 2). Although there is a call to increase in women's participation and access to certain resources as well as gender balance in the strategy, there is no framework for action for these activities, limiting the scope of implementation.

The Malawi Growth and Development Strategy II (MGDS II) 2011 – 2016 was the second medium term development strategy formulated to attain the country's long term development plans, as set out in Vision 2020. There were six thematic areas within the strategy: sustainable economic growth; social development; social support and DRM; infrastructure development; governance; and cross cutting issues, identified as gender and capacity development. Launched in 2011, the MGDS II was aligned with, and aimed to achieve, the MDGs. In turn, gender is structured within the strategy as it was in the MDGs; in isolation to other themes. The strategy notes that Malawi was lagging within the achievement of MDG 3, gender equality and empowerment of women, and introduced strategies to reduce gender inequality in the country by: promoting women entrepreneurship; promoting equal access to technology and micro-finance; and advocating for the increased representation of women in politics and decision making (Government of Malawi, 2011, p. xxi).

By following gender equality actions outlined by the MDGs, the MGDS II only indicated a need to address gender in one theme of social development, specifically in its sub-themes of education and child development protection. Both sub-themes outlined

the need for gender parity in education (Government of Malawi, 2011, p. 42). The reduction of “gender inequalities and enhanced participation of all gender groups in socioeconomic development” is identified in the theme of cross-cutting issues (Government of Malawi, 2011, p. 70). In terms of the implementation plan, the MGDS II outlined specific actions and activities that must be carried out to achieve the outlined goals. Like Vision 2020, the MGDS II failed to acknowledge inequalities beyond access to resources, education and employment and failed address the underlying imbalance of power. As such, the policy is considered to view ‘women as vulnerable’ (ranked 2). Although cultural practices that favour boys are acknowledged within Vision 2020, the MGDS II made no attempt develop a strategy to address these inequalities. In doing so, the MGDS II ignored the social and cultural barriers which many women are faced with, especially in rural areas.

The MGDS II has recently been surpassed by the third Malawi Growth and Development Strategy (MGDS III), which was drafted for approval in 2017. However, the MGDS III was not reviewed in this thesis as it was published after fieldwork and data collection in Malawi, hence, had no bearings on the findings or gender considerations employed within CCA policy actions in 2016.

5.4.2. National Gender Policy 2015

Malawi’s National Gender Policy is a key policy document developed by the Ministry of Gender, Children, Disability and Social Welfare, which acts as a guide to ensure all central policies have gender considerations. A National Gender Policy was first implemented between 2000 – 2005, and subsequently updated in 2015. The purpose of the policy is to:

“mainstream gender in the national development process to enhance participation of women and men, girls and boys for sustainable and equitable development for poverty eradication”
(Government of Malawi, 2015c, p. 2)

The first edition of the policy (2000 – 2005) aimed to increase efforts towards the promotion of gender equity and equality. It is noted within the foreword that Malawi was falling behind in achieving the targets for MDGs 2, 3, 5, and the policy aimed to accelerate

the attainment of the Goals. The second edition of the gender policy has six thematic areas: education and training; reproductive health; food and nutrition security; natural resources and environment management; governance and human rights; and poverty eradication and economic empowerment. The intended policy outcomes are: increased meaningful participation of women, men, girls, and boys in decision-making; wealth creation and poverty reduction; reduced gender based violence at all levels; enhanced gender mainstreaming across all sectors; and enhanced institutional capacity of the National Gender Machinery.

The National Gender Machinery (NGM), is the focal point to coordinate all government interventions to promote gender equality. The development of the NGM is not a new concept, and is one that has been in the international discourse since the United Nations Decade for Women (1975 -1985). The vision of NGM is to develop structures, mechanisms, and strategies to achieve gender equality in all sectors, at all levels (Manjoo, 2005). NGMs across the world take different forms and focal points range from formal ministries to temporary committees (McBride & Mazur, 2012). In Malawi, it was noted by key actors in this research that the NGM is fragmented and poorly coordinated and in need of capacity building. The 2015 policy intends to harness all sectors within the NGM to ensure all stakeholders recognise their role so that gender mainstreaming can be streamlined and better coordinated (Government of Malawi, 2015c).

The National Gender Policy references the 1979 CEDAW treaty as a guiding instrument, and reflects the structure of the MDGs and MGDS II. As identified, both these development agendas fail to fully integrate gender mainstreaming, treating gender as a standalone issue. However, within the opening policy foreword, President Mutharika states that the policy will contribute to the accelerated attainment of the SDGs (Government of Malawi, 2015c). The policy itself recognises the multi-sectoral nature of gender issues. However, as its guiding policies, the MDGs and the MGDS II, focus on a narrow view of gender, the policy is unlikely to influence other government departments to fully mainstream gender throughout all their activities.

5.4.3. Gender in Malawi's UNFCCC documents

The UNFCCC required states to prepare two documents outlining national strategies for dealing with climate change, specifically adaptation. Both of Malawi's documents outlining national strategies were reviewed: Malawi's NAPA (2006), and the NDC (2015), formerly INDC. The NAPA, as described by the UNFCCC (2014), was a process for Least Developed Countries (LDCs) to identify priority activities that responded to their urgent and immediate needs to adapt to climate change. In the lead-up to COP 21 held in Paris in 2015, all countries were encouraged to submit a list of intended contributions that pursued domestic mitigation and adaptation measures. The NDC communicates what each Party (country) aims to do to meet the targets set under the Paris Agreement. For LDCs, the NDC consists of conditional targets (efforts which requires external support) and unconditional targets (achievable through local resources alone).

Within the NAPA, gender is identified as a key area of focus for policy-makers. This is mandated through UNFCCC Decision 28/CP.7, which states that NAPA should be guided by gender equality. Malawi's NAPA refers to women's vulnerability to climate change as the central reason why addressing gender equality within adaptation is important:

“Women bear most of the burden in activities that are most impacted by adverse climate change, including collection of water, firewood and ensuring daily access to food. In addition, changing demographics as a result of the impact of the HIV/AIDS epidemic are leading to women taking up greater responsibilities as sole head of households and taking care of the sick and orphans”
(Government of Malawi, 2006a, p. xi)

Despite this view of women as vulnerable to climate change, the overall the document is viewed as calling for a 'gender balance' (ranked 3) in activities. The justification for this ranking comes from the document's mandate for the enhanced participation of women within activities, namely: improving community resilience, restoring forests in the Upper, Middle, and Lower Shire Valley, and enhancing early warning capability. Notably, while gender considerations are cited in the introductory sections, they do not feature in the list of urgent and immediate need for adaptation. Although, gender balance considerations are made within the framework for action, the NAPA fails to assign resources to ensure that men and women have equal access to

adaptation. There are no gender considerations with implementation and transparency actions, limiting the potential output of gendered actions.

The NDC, published in 2015, achieves a higher ranking the gender analysis of the NAPA. The document is found to be 'gender sensitive' (ranked 4). As with the NAPA, the NDC outlines women's vulnerability to climate change. The document goes further than the NAPA and identifies gender as a priority area and expresses the need for it to be mainstreamed in all sectors, stating:

"Gender is a crossing-cutting issue. Hence, it needs to be mainstreamed in all sectors. Vulnerable and disadvantaged groups carry the burden of the impacts of climate change. Women and girls are particularly impacted, as they have to walk further in search of basic commodities for the family such as firewood and water" (Government of Malawi, 2015a, p. 11).

In addition, the NDC states that adaptation measures outlined in the plan are intended to enhance gender inclusiveness. The NDC also demonstrates a more people-centred approach as compared to the NAPA, as it reflects on the critical need to for human rights issues to be considered in design and implementation of all adaptation and mitigation efforts. Moreover, within the adaptation actions, the promotion of gender mainstreaming in policies, programmes and projects is considered unconditional; deemed achievable by the Government of Malawi without the need for external support. Although the NDC goes further in terms of emphasising the importance of gender mainstreaming, little detailed is provided as to how all adaptation activities will mainstream gender.

Finally, both UNFCCC-related documents are open to the same criticism given to the Paris Agreement by Huyer (2016); that women are viewed only as vulnerable and misses an opportunity to value women's unique perspective of climate change and the environment as a prospect for successful adaptation and sustainable development. This view is particularly pertinent when discussing climate change and women in Malawi. Women have a strong connection to their local environments in rural areas, and they hold traditional knowledge and expertise that could be harnessed to better understand changes taking place and local solutions (Alston, 2013).

5.4.4. Gender in climate change policies

In 2012, the Government of Malawi launched the National Climate Change Policy. The overarching objective of this policy was to create better adaptation and mitigation strategies within the country to achieve sustainable development. This policy was aligned with the national governing strategies Vision 2020 and MGDS II. It was intended to create an environment for country-wide and coordinated approaches that considered the needs of all sectors of society to tackle climate change. Prior to the launch of this policy, Malawi was implementing climate change programmes and projects without a national policy. The goal of the 2012 policy was:

“to promote climate change adaptation and mitigation for sustainable livelihoods through measures that increase levels of knowledge and understanding and improve human well-being and social equity, while pursuing economic development that significantly reduces environmental risks and ecological scarcities” (Government of Malawi, 2012a, p. 8).

The priority areas identified within the policy were: adaptation; mitigation; capacity-building, education and awareness; financing mechanisms; institutional coordination; population; research, technology and systematic observation. The policy also included the integration of gender as a cross-cutting issue, identifying it as an area for action. The gender analysis conducted by this research finds that this climate change policy viewed ‘women as a vulnerable group’ (ranked 2). Although gender is considered a cross-cutting issue within the policy, there are no clear attempts to outline actions for gender considerations, other than:

“Cross-cutting issues and associated vulnerable groups disproportionately affected by climate change are often not included in strategies, plans and programmes. These include: gender; disadvantaged groups such as: women, children, elderly, physically and mentally challenged, and those affected by HIV/AIDS” (Government of Malawi, 2012a, p. 20)

To address the needs of these identified vulnerable groups, the policy aimed to engage with disadvantaged groups in the formulation of new adaptation and mitigation plans. This would allow their needs to be considered within the structural arrangements of adaption and mitigation plans (Government of Malawi, 2012a). Furthermore, the policy

encouraged groups to engage in the monitoring and evaluation of climate change policy implementation. However, throughout the policy's strategic plans, gender was consistently excluded. This resulted in a limited voice of the defined vulnerable groups within project design, decision-making and implementation. The policy also referred to the relevance of the UNFCCC to climate change action in Malawi and used the Kyoto Protocol as its key influencing policy, which this research has already determined as 'gender blind', with limited focus on individual vulnerability or adaptability.

At UNFCCC level, following the adoption of the LWPG and the Paris Agreement in 2015, a new momentum emerged towards tackling climate change. In this light, the National Climate Change Management Policy was passed in Malawi in 2016. It was developed "in tandem with national aspirations, as well as regional and international obligations" (Government of Malawi, 2016b, p. 1). The policy is described as a key instrument for managing climate change, and acts as a guide for integrating climate change into development planning and implementation by all stakeholders, at all levels. The policy aims to: effectively manage the impacts of climate change through interventions that build and sustain the social and ecological resilience of all Malawians; contribute towards the stabilisation of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous human-induced interference with the climate system within a timeframe that enables social, economic and environmental development to proceed in a sustainable manner; integrate climate change into planning, development, coordination and monitoring of key relevant sectors in a gender sensitive manner; and integrate cross-cutting issues into climate change management through an appropriate institutional framework (Government of Malawi, 2016b).

Within the National Climate Change Management Policy, gender sensitive actions are considered a standalone objective. Accordingly, within the gender analysis of this research, the National Climate Change Management Policy is described as a 'gender sensitive' policy (ranked 4). Compared to the 2012 climate change policy, where gender considerations were only included in an area of action under cross cutting issues, this presents a strong area of growth, as the policy clearly states the importance of gender equality within actions on climate change:

“Women and girls are disproportionately affected by climate change and are more vulnerable to its impacts. Gender equality must therefore be promoted as a response both in terms of mainstreaming as well as through specific focused interventions” (Government of Malawi, 2016b, p. 8).

The gender issues presented in the Paris Agreement are reflected here within the National Climate Change Management Policy. The progression of gender mainstreaming in Malawi’s climate change policy is a valuable example of the wording and incorporation of gender issues. In Malawi, prior to 2015, gender was not treated as an instrumental issue and although considered cross-cutting, it was excluded from policy objectives and actions. The progress resulting from LWPG and the Paris Agreement is clearly reflected in the 2016 National Climate Change Management Policy and its policy objectives. As with the Paris Agreement, the National Climate Change Management Policy can be critiqued for not valuing women as bearers of knowledge and in doing that perpetuating the view-point of women’s vulnerability (Huyer, 2016; Alston, 2013). Nonetheless, gender sensitivity within the National Climate Change Management Policy fails to be fully incorporated into all strategic actions.

5.4.5. Gender in disaster risk management policies

The significant overlap between CCA and DRM in practice and academia, noted by Bradshaw (2013), is evident in the Malawian context. Malawi’s NDC opens with an overview of the recent weather-related events that caused stress to Malawi’s development. The report highlighted the severe floods in 2015 that impacted over one million people, and the 2016 drought which affected approximately six million people. The impact of these two consecutive weather-related shocks has had a profound impact on Malawi’s prosperity. When assessing the cost of climate related disasters in Malawi in recent years, the need for a Department of Disaster Management Affairs-led taskforce of action on climate change is clear. This is particularly pertinent as the Department of Disaster Management Affairs exercises influence over Government departments, as indicated by fieldwork findings:

“I find them to be key because it is only [Department of Disaster Management Affairs] who can really have a mandate to, to steer every ministry ... Ministry of Agriculture, for example, cannot have mandate over another ministry ... but they need the capacity to be able to do that” (N/NGO_1)

It is from the overlap of CCA and DRM, and the importance placed on Department of Disaster Management Affairs from stakeholders working on CCA, that it was determined relevant to include the 2015 National Disaster Risk Management Policy within this gender analysis.

The National Disaster Risk Management Policy presents “the aspirations of the Government of Malawi in ensuring that disaster losses and impacts are sustainably reduced” (Government of Malawi, 2015d, p. 1). The policy identifies six priority areas: mainstreaming DRM into sustainable development; establishing a comprehensive system for disaster risk identification, assessment, and monitoring; developing and strengthening of a people-centred early warning system; promoting a culture of safety, the adoption of resilience-enhancing interventions; reducing underlying risks; and strengthening preparedness capacity for effective response.

Remarkably, as a relatively new policy approved in February 2015, the National Disaster Risk Management Policy is the only national document reviewed by this research that is ‘gender blind’ (ranked 1). The document makes no reference to gender, or to any differentiated vulnerabilities or capacities women may have relative to disasters within Malawi. The guiding documents to which the National Disaster Risk Management Policy is aligned to are: the MGDS II; the MDGs; the UNFCCC; the HFA; and the Africa Regional Strategy for Disaster Risk Reduction. As previously indicated, the HFA calls for the need for gender to be integrated into all DRM policies, plans and decision-making processes, though fails to ensure gender actions translate into national strategies. Furthermore, the Africa Regional Strategy for Disaster Risk Reduction (AU/NEPAD, 2004) makes an unambiguous call for gender mainstreaming in all DRM activities:

“Efforts to enhance governance of disaster risk reduction will be limited without concurrent initiatives to mainstream gender in disaster risk reduction. This involves promoting gender equality in participation in disaster risk reduction interventions. It also requires empowering women to take decisions to protect their

lives and livelihoods. There are development costs to gender bias and clear benefits to reversing gender inequality. It is therefore important to promote the integration of gender issues in disaster risk reduction” (AU/NEPAD, 2004, p. 13).

Considering these influencing policies, and given it was launched in 2015, at a time when gender was becoming increasingly integrated in other national and international policies, it is surprising that gender issues are ignored completely within the document. This is especially relevant, as it launched in the same year which brought about the Paris Agreement, the SDGs and the SFDRR, all of which are considered progressive policies, going beyond the call for women’s representation as the major gender consideration. This policy highlights claims by Gaillard et al. (2017) who suggest that, globally, national DRM policies and legal instruments continue to fail to include gender sufficiently in order to lessen potential disaster risks.

5.5. Conclusion

This chapter has answered RQ1: To what extent do gender considerations in international climate change policy influence gender mainstreaming in CCA policies at national scale in Malawi?

The timeline of key policies reviewed demonstrates an increase in gender language used throughout policies, albeit with slower progress at the national level in Malawi. Although international policy aims and objectives make broad statements of actions with gender and social equality at the forefront, the gender considerations throughout remaining policy implementation actions remains restricted. The SDGs can be considered the most progressive in terms of gender and intersectional considerations within the policies reviewed, as there are calls for gender equality made across most goals and within numerous targets and indicators. However, the SDGs face criticisms for not challenging critical gender issues such as power imbalances, macro-economic and current drivers of economic growth, and the potential to water-down gendered SDG targets and indicators by governments to suit national interests. This concern is echoed throughout all policy areas reviewed. As there is limited reference to gender within implementation, finance, reporting and transparency in international guiding strategies, gender

considerations can easily become side-lined within national policies and climate change actions.

The gender analysis of national policies demonstrates a time-lag for the inclusion of progressive gendered language, as compared to influential international strategies. Between the years 1998 and 2012, there was no advancement from policies which viewed women as vulnerable towards policies which provided affirmative actions to increase women's participation in climate change policy development or implementation. The national climate change and DRM policies are influenced by both national governing strategies and guiding international policies. The gender language and approach used in these guiding international policies, such as the SDGs, are mirrored in the national policies reviewed. One example of this is the mirroring of language used in the MDGs and the MGDS II. In both documents, the language used around gender is limited to discussing gender within the narrow confines of economic inequality, which is to be addressed through education, participation in government and employment.

The influence of international policy considerations around gender mainstreaming language over time is evident in the comparison of the 2012 National Climate Change Policy and the 2016 National Climate Change Management Policy. The 2016 National Climate Change Management Policy draws on the Paris Agreement, and although it does not position itself as an intersectional policy, there is clear progression towards this reading of gender within the language used. While the 2012 policy failed to establish actionable objectives to achieve the gender considerations outline in the cross-cutting object, the language in the 2016 policy made strides call for gender mainstreaming in all policy plans and actions.

Conversely, the National Disaster Risk Management Policy, launched in 2015, provides an example where the gender language used in international policy has failed to influence gender considerations in key national policies. Although all guiding policies influencing the National Disaster Risk Management Policy indicate gender equality as imperative within all DRM actions, the policy remains gender blind. This speaks to several issues at the national level in Malawi, and aspects of gender mainstreaming flows through scales. At national level, the exclusion of gender considerations within the policy highlights the lack of importance attributed to the gendered experience in disasters.

Throughout the collaborative process of policy-making within Department of Disaster Management Affairs, issues of gender inequality were either not discussed, or potential gender considerations put forward by relevant staff were not considered during policy formation stages. This highlights the weak influencing power of current structures of the Ministry of Gender, Children, Disability and Social Welfare and their assigned representatives in Government departments.

Finally, it is important to note that conducting this gender analysis provides limited insight into the realisation of policy actions and impact. Although gender and intersectional language may be included in policies, especially most post-2015 policies, the mechanisms to ensure these social considerations are built into implementation actions are not in place. As a number of interviewees stated “policies are often made to stay on the shelf” (N/NGO_2). The policies reviewed at national level include gender to varying degrees, but they provide little indication of how these actions may be put in place in CCA activities. It is apparent from this research that gender considerations within CCA actions in Malawi are becoming increasingly important, especially in terms of accessing donor funding. Within Malawi, a decentralised government is in place, so while policies are formed at national level they are implemented by district councils. This has the result that gender norms and the cultural context of districts can influence how gender mainstreaming is interpreted from the national policies and applied within district and local levels. The following chapter explores this translation of gender mainstreaming through the national and subnational scales by examining stakeholders’ perceptions of gender and gender mainstreaming.

6. National and subnational actor perceptions of gender and gender mainstreaming in CCA

6.1. Introduction

In the previous chapter, the translation of gender mainstreaming language from international to national policy formation was examined. While this demonstrated a positive trend in the consideration of gender as key element of policy, it provided a limited understanding of how gender mainstreaming is negotiated or navigated within the implementation of CCA activities at national and subnational level. Accordingly, this chapter assesses stakeholders' perceptions of gender and gender mainstreaming in CCA activities at national and subnational level. This chapter aims to answer RQ2: How are CCA resources distributed at subnational scale influenced by gender mainstreaming in the Lower Shire Valley in Malawi? As policy is formed at national level but implemented at the subnational level, it is vital to understand the differences in perceptions of gender across these scales. Different perceptions of gender have the potential to greatly influence the implementation of gender mainstreaming, and the possibilities for transformative changes of the lived experiences of men and women in the Malawi. This chapter first presents the perceptions of gender amongst interviewed actors across scales by using a word frequency analysis. The chapter then explores perceptions of gender mainstreaming, specifically barriers preventing the flow of gender mainstreaming across scale.

6.2. Perceptions gender at national and subnational level

There is a clear distinction between the frequency of citing gender in climate change related discussions within interviews with national and subnational actors. As seen in Table 12, the term 'gender' features in the top 15 words in interviews with national level actors. In contrast, it is only present in the top 15 words in interviews with one group of subnational actors, district government representatives. This is despite the same interview format used at both levels. This frequency suggests the importance of

gender issues and gender mainstreaming in CCA policies, plans and actions is weaker at subnational levels. Within national government actors, ‘gender’ is the most frequently used word within the interviews, with ‘women’ ranking as the third most frequent word. Amongst actors at district government level, ‘gender’ is the thirteenth most frequent word.

Table 12: Word frequency of national and subnational actors

<i>National Actors</i>			<i>Subnational Actors</i>		
Government (2 M)	NGO / CSO (3F; 5M)	Donor (2M)	District Government (7M)	NGO 4 (2F; 2M)	Traditional Leaders (2M)
Gender	Communities	Maize	People	Community	People
Policy	Disaster	Project	Area	Project	Floods
Women	Time	Government	Issues	Climate Change	Area
Climate Change	Climate Change	Year	Land	Issues	Challenges
Ministry	Work	Beneficiaries	Floods	People	Chief
Areas	Food	Change	Resettlement	Areas	Land
Problem	Women	Increase	District	District	Communities
Programme	Need	Malawi	Communities	Working	Place
Implement	Gender	Million	Councils	Using	Wetlands
Support	Moving	Aid	Chiefs	Floods	Village
Government	Malawi	Service	Project	Year	Encourage
Interventions	Government	Programme	Climate Change	Food	Government
Level	Vulnerable	Development	Gender	Rivers	Majority
Flood	Level	Food	Place	Houses	Rivers
Disaster	Year	Gender	Committee	Disasters	Talk

However, while ‘gender’ appears more frequently within all actor groups at national level, its ranking as the most frequent word in national government groups is a false positive. One of the national government officials interviewed for this research was from the Ministry of Gender, Children, Disability and Social Welfare, and further examination of word frequency of interviews with national government, excluding this representative, resulted in gender falling out of the top fifteen most commonly cited words. Similarly, ‘women’ moved from the third to the thirteenth most commonly cited words. This outlines the limitations of using word frequency analysis to indicate importance, as the method does not consider context, circumstances or use of key words analysed, nor does it consider the position of interviewee (Lamprell & Braithwaite, 2017). Hence, conducting thematic analysis to provide context specific insights into gender relations at national and subnational scale is necessary. The word frequency table allows

for comparison and illustration at various points throughout this chapter, but efforts are made to expose such false positives. The following sections explore themes of perceptions of gender and barriers of gender mainstreaming that emerged from the analysis of qualitative data.

6.2.1. Thematic analysis: Perceptions of gender across scale

The narrative that women are vulnerable to climate change and disasters is longstanding within academia (Wong, 2016; Alston, 2013; Terry, 2009; Denton, 2002; Denton, 2000; Dikito-Wachtmeister, 2000), and policies related to CCA consistently view women as vulnerable. It is, therefore, unsurprising to find the view of women as vulnerable to climate change across national and subnational scales. Overall, the consensus of actors interviewed is that women, among other groups such as child-headed households, the elderly and people with disabilities, are identified as the most vulnerable to climate change. Women are the group most frequently identified as vulnerable to climate change by national and subnational actors. This results from a direct observation of their productive and reproductive roles within communities. At national level, this common theme was found between government and NGO actors. An example of this view is presented in the below quote:

“Definitely women are, not because I’m a woman [laughter], but definitely women are vulnerable because of their reproductive and productive roles in the community ... this makes them vulnerable, it actually increases their vulnerability to the effects of climate change. I will give you examples for droughts, automatically they mean that communities might not have food, but a woman has to make sure that there’s food at the house. Ok a man yes, but then I think because of the culture and everything else, a woman will feel it more than a husband. You look at floods, a house has been swept away but a woman would want to make sure the children have food, have clothes to wear, that they are safe and everything like that. You can look at a pregnant woman during floods, she is more vulnerable” (N/NGO_1)

No such commonality was found with donor actors, who did not discuss the perceived vulnerability of women during interviews, rather they focused on the necessity of gender considerations to be included in project proposals for funding. The results show

that gender has increasingly become a critical area of consideration for donors, though the representatives interviewed for this research failed to state reasoning for why this is the case. Based on interviews and analysis, it was found that donors deemed gender considerations necessary within project proposals because it allowed them to meet their own gender equality targets and commitments to their governments and international agreements. This contrast between the donor group and other actors is also reflected in the national level word frequency analysis (Table 12), where 'women' is featured within government and NGO/CSO columns, while only the term 'gender' features on the donor column. The differences between donors and other actor groups can further be observed within Table 12. The table demonstrates that donor language is focused more on project terms such as: 'beneficiaries'; 'million'; 'aid'; 'service'; 'programme'; 'development', rather than a focus on people or community, which could be illustrated by terms such as: 'people', 'communities', 'villages', 'chief', 'land'.

Aside from the donor perspective, the view of women as vulnerable is translated across scale and sectors. Similarly, to the national scale, it is seen that actors from district government and NGO/CSOs from the subnational scale also view women as vulnerable. Both actor groups unequivocally identified women, homogenously, as the primary vulnerable group when discussing climate change. As with their corresponding national actors, other groups such as the elderly, children and the chronically ill were also identified within a homogeneous group of those vulnerable to climate change and its impacts. As with view at the national scale, women are identified as vulnerable due to their role as household carers, and that any shock to a household would create a greater burden for women. This is highlighted in these quotes from subnational representatives:

"Yeah for example, when it is flooding women, children and the elderly suffer most. Men could manage to swim, could manage to run away but the old people, the women, the children are the people that suffer most" (L/GOV6)

"Mostly the women and children are the most vulnerable. The widows and the elderly, the chronically ill are also affected by the impacts of climate change" (L/NGO_4)

Notably, the actor group of Traditional Authorities (TA) is an outlier to this subnational theme of viewing women as vulnerable. Although the TA actor group identifies various gender issues that inhibit women within communities, they do not explicitly align women's vulnerability to climate change. Rather, when discussing challenges related to climate change and disasters, the interviewed TA actor group presented the vulnerability of the whole community and their ecosystems. This is reflected in the word frequency table which shows 'people' as the most cited word. In addition, other words such as 'land', 'wetland', 'place', 'village', 'communities' and 'chiefs' were highly used words within interviews with the TA actor group.

At the national scale, an emergent theme from NGO/CSO actors was the concern that men's actions and opportunities result in the heightened vulnerability of women. An example of this was men's adaptive capacity and ability to migrate for economic opportunities. This often increased the burden of household and agricultural responsibilities for women who remain in rural regions, further increasing their vulnerability to shocks and stresses. In many regions, including the Lower Shire Valley, due to cultural and traditional constraints, migration is often not a choice available to women (Tacoli, 2009), and this restriction on women's movement is noted in the rural context in Malawi. Although migration, at the subnational scale, was discussed as a potential threat to traditional authority as a result of inward migration from Mozambique to the Lower Shire Valley, migration was not raised as a factor which would increase women's burden and vulnerability. In addition, localised displacement, resulting from flooding, was perceived to have implications on chieftaincy and power relations at local level, rather than impacting on gender relations. Again, this highlights the differentiated concerns between TAs and other actor groups. The research showed that there are increasing numbers of female-headed households (FHH), throughout the rural region, who are often determined as more vulnerable than male-headed households (MHH) (Flatø, et al., 2017).

At both national and subnational levels, there was a common view of women as having limited adaptive capacity to respond to climate change and its associated disasters. It was perceived that this limited adaptive capacity compounded their vulnerability and resulted in women engaging in high-risk activities as coping mechanisms. Jost et al (2016)

suggest that women have less adaptive capacity because of financial and resource constraints, whilst men have more income-generating opportunities and as such, are better able to adapt. Both national and subnational NGO/CSO actors observed an increase in women engaging in transactional sex as a coping mechanism to crop failure and heightened food insecurity after two years of climate related disasters:

“...the next thing, in the event that they don’t have cash that means women may be able to offer their bodies to men who have got food...so at the end of the day they are able to feed their children. This exposes the women to HIV and AIDS” (N/NGO_4)

“Even when we talk of social prostitution it is very high, women are just selling themselves in order to get the food to feed the family” (L/NGO_3)

Furthermore, there is a noted increase in early marriages, which is often highlighted as another gendered negative coping mechanism. Early marriage is defined in this research as marriages in which one or both spouses are below the age of 18 (Sexual Rights Initiative, 2013). Again, this theme emerged from national level NGO/CSOs and TA actor groups, both of which engage closely with communities. Interviews with NGOs and TAs indicated the perception that, as a coping mechanism, families arranged to have their daughters married during times of hardship, in order to receive a dowry, or simply to have one less person to provide food to:

“We have seen in some instances of even parents trying to entice their own children into early marriages because I think by doing that it would be like a source of food to, to their families” (N/NGO_3)

“Yeah [early marriage] has increased, why? Because soon after the flooding people were displaced, girls, children lost their parents, so they had no one to look after them, so the only way out was to get married early and even if your parents were there, they have lost everything they owned so it is like shedding off some of the children, so it is less responsibility, yeah it has been a big problem” (L/TA_2)

To date, there has been limited research conducted on transactional sex and early marriage as coping mechanisms to climate change. This finding is in line with some evidence which suggests that early, or child marriage, is a commonly used coping mechanism to climate change, most notably in the aftermath of disasters (Atkinson & Bruce, 2015; Babugura, 2010; Drimie & Gillespie, 2010). The findings in this thesis here

show that key actors have noted an increase in early marriages in the aftermath of consecutive climate related disasters. In 2017, the Government of Malawi worked to reduce the incidences of early marriage by amending its constitution to ban marriage under the age of 18 (Plan International, 2017). At the time of fieldwork, it remained a critical issue in the Lower Shire Valley. This amendment was only passed once data collection for this research had finished.

The final gendered negative coping strategy adopted by women in the Lower Shire Valley, as noted by national NGO/CSO stakeholders, was the increased harvesting and consumption of *Nyika*, a waterlily rhizome. This was considered a gendered coping strategy because, largely it was stated that women were entering dangerous water bodies to harvest the rhizome:

“At this time, you come to realise that most of the communities in Nsanje, for instance, are relying very much on Nyika, that is the water lily [rhizome]. We have women going into the water to harvest Nyika but this is a delicate task because it is dangerous and considering that usually women may not be able to handle that well. Even at times they are going into the water with their children on their backs which is so delicate, the Shire is crocodile-infested as such, I think it is like, sort of, life and death”
(N/NGO_4)

The harvesting of *Nyika* is considered a high-risk activity because, as noted by a traditional leader from Chikwawa, this activity can lead to animal-human conflicts as *Nyika* is a food source for hippos, and the human consumption draws people closer to the habitats of hippos and crocodiles. The consumption of *Nyika* is considered an act of last resort, and an activity of those facing severe food insecurity. Furthermore, *Nyika* is not good for the digestive system and its consumption in large amounts can have negative health impacts. National and subnational actors also believed that women were consuming more *Nyika* due to food security pressure, and women’s role in providing food for their families. This supports research (Beaumier & Ford, 2010; Coates, et al., 2006) which suggests that it is women that often skip meals, eat last or eat poorer quality food in order to allow their husbands and children to obtain more nutrients (Babul, 2016). Therefore, it would not be surprising to see women consume greater proportions of *Nyika* compared to men. The local level views of harvesting and consuming *Nyika* within the Lower Shire Valley will be explored in the following chapter.

There was a consensus among national and subnational actors that an all-of-community vulnerability was heightened in 2016 after two consecutive disasters – the flood in 2015 and the ongoing drought in 2016 – in the Lower Shire Valley. Thus, the adaptive capacity had been reduced throughout the whole community, and there was a noted increase in non-gender specific coping strategies such as increased deforestation, and the production and sale of charcoal. However, the activities men engaged in were not considered to be high risk by national and subnational actors. Women’s engagement in high risk activities, such as transactional sex, was observed and noted by NGO/CSO and traditional leaders, at both the national and subnational scale. However, there was little evidence to suggest that the interviewed actor groups were working to address these high-risk activities within CCA activities. This may be due to the view that these harmful gendered coping strategies are a part of life, and despite a noted increase in actions, NGOs and traditional leaders do not consider them out of the ordinary or something which requires a policy response. In Chapter Seven, a gender viewed of coping strategies at local level will be explored in more detail.

6.3. Perceptions of gender mainstreaming across national and subnational scale

In this section, attention is paid to the emergent themes surrounding perceptions of gender mainstreaming across national and subnational scales. There were four key themes that emerged and that are discussed in detail in this chapter. These are: the greater incidence of gendered language being used by national and subnational actors; gender mainstreaming as a donor-led activity; the gap between policies at national level and action at subnational; and an uncertainty surrounding the actions needed to mainstream gender in CCA activities.

Although not apparent within the word frequency analysis (Table 12), all actor groups noted an increase in gender mainstreaming actions within their work in recent years, and it is a topic of notable importance. Most actors welcome the increase of gender considerations within CCA projects and development actions more broadly. This is in line with an increased interest in gender issues across all government departments and

organisations. The Ministry of Gender, Children, Disability and Social Welfare noted this increase in interest in recent times, which has resulted in the Ministry being approached and included within discussions that they were not previously party to:

“In terms of the policies, most of policies have gender [considerations] and now people are demanding from institutions to actually get support from the Ministry to do their gender policies or strategies” (N/GOV_2)

While there has been a notable increase, there are clear areas of contradiction surrounding responsibility for and understanding of what gender mainstreaming entails. Donors are unanimously considered the drivers of gender mainstreaming in Malawi. This is agreed upon by actors across scales, and also supported by donors interviewed in this research. Key donor actors interviewed emphasised the requirement for gender considerations in projects in order to receive financial support. Donor interviewees suggested that the requirement for these considerations was likely to increase in the future:

“[We] put an emphasis on gender in accordance with the gender equality act, so all programmes should have a strong component of gender for the inclusion of women and girls...[and] going forward all programmes will be look at through a gender lens – with beneficiaries’ voices heard for what works for them and gender included in all programmes” (N/Donor_1)

“...at donor level, it seems there is an improvement because [gender mainstreaming] is very critical for projects to be funded. I will give an example of the programme we are doing. we have specific activities on gender, so we see an improvement compared in the past when maybe people didn’t care much about gender but just about results” (L/NGO_2)

“[Gender mainstreaming] is not all that vivid [in programmes and projects] ...it is not a deliberate policy to say that so many women in this programme...but when you go out there because of the donor perspective we’ve ended up finding ourselves focusing on issues of gender” (N/NGO_7)

Donors taking the lead in gender mainstreaming activities, as illustrated above, is not an unexpected finding, and this result is supported by previous research on gender mainstreaming in NGOs in Mumbai (Desai, 2005). In the first decade after the BPfA in

1995, where gender mainstreaming was identified as the most important mechanism to empower women, organisations such as the UN led a process to influence donors, NGOs and CSOs to adopt the terminology (Alston, 2014; Moser, 2005; True & Mintrom, 2001). As comments from national and subnational NGOs suggest, organisations are conscious of meeting the requirement set by donors when applying for project funding. Wendoh and Wallace (2005), similarly, show that much of the work to address gender inequalities are donor-led, and state that gender mainstreaming was largely an external concept to national bodies. The lead from donors in gender mainstreaming actions is understood through the guiding forces from supranational organisations, such as UNDP, and progressive donors, who have worked to increase the visibility of gender issues in a post-BPfA era (Hafner-Burton & Pollack, 2002). The research conducted in 2016 for this thesis finds that gender mainstreaming remains an external, top-down concept.

While there is a noted necessity from donors to include gender considerations within project actions, there is an apparent lack of ownership and responsibility from the Government of Malawi and NGOs implementing CCA projects to take charge of gender mainstreaming. Previous critiques have shown that donor-led gender mainstreaming actions result in ambivalence surrounding the issue, particularly within government (Wendoh & Wallace, 2005; Mukhopadhyay, 2004; Hafner-Burton & Pollack, 2002). Furthermore, evidence from this research in Malawi shows that there are variations between those who identify as being responsible for ensuring gender mainstreaming actions across scales. At the national scale, there is a view that all actors have increased gender mainstreaming, though the progress is notably slow. However, a common assumption from national actors is that the focus of gender mainstreaming should be at the subnational scale, as projects take place at this level. Conversely, and despite the view of gender mainstreaming being donor-led, district council actors discuss the need for donors and NGOs to do more and continue taking the lead on gender mainstreaming, rather than the responsibility being placed on district authorities:

“Donor aid must make sure that these issues of gender mainstreaming are a must. You know as they are always very serious with issues, they should also take that seriousness into gender mainstreaming. If the NGO is not implementing like 50 [percent]...then there should be no funding to them. If that was being followed, then implementation would be very easy. You know

government as a partner, we rely on donors, in the district council there are a lot more NGO intervention than government intervention, so if the NGO interventions are recognising gender mainstreaming, then it would be very easy for it to be achieved” (L/GOV_4)

This view from district council actors of the need for donors and NGOs to do more is at odds with emergent theme that gender mainstreaming has been led by donors to date. As such, there are visible inconsistencies cross scales and actors surrounding gender mainstreaming. While national scale actors believe gender mainstreaming has been promoted by donors and should be implemented at the subnational scale, policy implementers from the district council view their capacity as limited without more input from a higher scale or external actors. There was also evidence to suggest that organisations are failing to include donor determined gender considerations sufficiently when enacting donor-supported programmes. This may result in retroactively applying further top-down, gendered actions, as a result of monitoring and evaluation activities:

“I have seen efforts to do gender mainstreaming, possibly when you have been pushed by a donor and you find maybe you have already started implementing, you have already designed the project when the donor comes to visit you and they say, “but we do not think this project has really considered a lot of gender mainstreaming”, so you think ok what do we do? So, you try” (N/NGO_5)

In addition to highlighting the gaps in policies at national level and action at the subnational level, these inconsistencies in determining who is responsible for gender mainstreaming among national and subnational level actors point towards gaps in local capacity and levels of understanding of what gender mainstreaming means and entails amongst communities. This misunderstanding is widespread across scales in Malawi. This is highlighted by a female national interviewee from the NGO/CSO sector. She expresses views of a limited understanding across Malawi of what gender means, and what is required for gender mainstreaming:

“I think people think gender is coming to change the culture, very few people that understand [what gender mainstreaming is]. At community level, it is very few communities that understand that gender basically talks about interaction between a man and a woman, how you live, what opportunities do you provide to a

woman and a man, how do you make sure that there is equality between a man and a woman” (N/NGO_1)

At the national scale, NGO/CSO actors present concerns surrounding a lack understanding surrounding gender mainstreaming. These actors often highlight that there is no clear implementation strategy, and no clear leadership to ensure gender mainstreaming takes place coherently throughout all national, district and local actions. The above quote from a female national NGO/CSO actor represents a clear example of the true misunderstanding of gender mainstreaming amongst national and subnational stakeholders and provides insights to its restricted implementation to date. While the interviewee identifies that the concept of gender mainstreaming is misunderstood across scales in Malawi, she also appears to fundamentally misunderstand gender mainstreaming, demonstrating the lack of clarity around this issue. Gender mainstreaming, in its very nature, intends to change culture to create more equal societies, to view it otherwise is reductive and inhibits any transformative potential. Rather than tackling entrenched gender inequalities throughout society in Malawi, national and subnational actors have focused gender mainstreaming actions on creating gender balance, the equal participation of men and women in CCA activities:

“...that is what I am saying that I think, and even most people have just said gender mainstreaming, mainstreaming but not necessarily saying what that translates to” (N/NGO_1)

“I do not know if they are trying to get across other sectors, what I know is at least we have a Ministry of Gender but what they are doing with other [sectors], what they are doing to influence other sectors, I am not aware...I think they’re more of just saying we are mainstreaming gender other than the action, yeah that is what I would say” (N/NGO_4)

This is corroborated by actors at district level. The main gender consideration at district and local level was a gender balance in project activities: ensuring a fair representation women in activities, generally targeting a ratio of 60:40 women to men. One stakeholder presented that this is often difficult to obtain and getting 30 percent women was considered a success:

“...whenever we are identifying beneficiaries there is deliberate efforts by the committees themselves, for example you are looking

for 100, they will want 60 to be female, 40 to be male. So that is happening” (L/NGO_2)

“I may not be precise to say how it was done but I think [gender mainstreaming] was taken on board. I do not remember very well but it should be 60:40, 60 percent women to 40 percent men but I am not very sure because I have forgotten now, it should be that” (L/GOV_1)

“The only challenge that we are having is getting gender balance [in project activities]. Yes, they cannot be 50:50, at least 40:60, even if you achieve 30:70 it would be a very good achievement because it is not that easy in the community now” (L/GOV_4)

This concentration on gender balance as the key gender mainstreaming activity is found within all actors at district level (government, NGO/CSO and TA). District government officials discussed the increase in female representation of women in all aspects of decentralised structures, emphasising the move towards a greater inclusion of women committee members in all community committees. However, as Wong (2016) indicates, women participating within these groups are often elites, or connected to powerful men, and are reinforcing their interests rather than representing perceived vulnerable groups.

The view of gender mainstreaming as a new concept was held by numerous actors. More specifically, gender mainstreaming in CCA activities is considered to be in its infancy. This is presented as a justification as to why there have not been large-scale improvements to gender equality within this area in recent years. A representative from the Ministry of Gender, Children, Disability and Social Welfare discussed how there is no clear policy or programme for the inclusion of gender considerations within CCA activities, unlike other sectors where gender mainstreaming has excelled:

“...but for climate change...we were saying the national gender policy is supposed to influence the climate change and environment policies and strategies but there was no specific effort to look at gender and climate change, so it is only recently we have started looking at that...but the [Ministries] we have worked closely with are doing really fine. For example, the Ministry of Transport and Public Works, Agriculture, Education, and Health, who we have trained, they are realising that it is more helpful when they

integrate gender. They are looking at all gender groups in terms of vulnerability, and supporting the needs of these groups. The Ministry of Transport has even come up with specific guidelines on gender. So, it is unfortunate that the programme which is supporting these ministries is not looking at climate change and environment.” (N/GOV_2)

The gender blind nature of the national DRM policy, launched in 2015, indicates how gender issues related to CCA and DRM have continuously gone unnoticed within the national policy making. As Chapter Five presents, the DRM policy remains gender blind, whilst the international and regional policies which influenced it have all called for gender considerations throughout DRM activities. The lack of gender considerations within Malawi’s DRM policy highlights a common area of concern for gender mainstreaming more broadly. Conversely to this, some key actors suggested that women are more likely to be recipients of CCA because of their perceived vulnerability to climate change and disasters. This viewpoint, of a natural gender bias favouring women, was an emergent theme from national and subnational representatives of the Government and NGOs:

“We are basically addressing an issue that hits a woman very hard, so that bringing water to these locations we are relieving a woman of a pressure, so you see that it is already leaning towards issues of gender because it is bias towards women. When we are talking of issues of provisions of immediate food, it is already to the advantage of the women as compared to the men. We are already biased towards the promotion of issues of gender...we are providing a lot more relief to women as compared to men because women are already disadvantaged a lot” (N/NGO_6)

6.4. Barriers preventing the translation of gender mainstreaming from national policies to subnational actions.

Despite an increased gender narrative across scales and amongst actors examined in this chapter, key issues emerged which pointed towards the prevention of the implementation of a strong strategy for gender mainstreaming. These issues were noted

to be in line with key critiques of gender mainstreaming globally. However, there were further context-specific barriers which prevented gender mainstreaming from taking place and minimised potential gains.

Firstly, among some key actors interviewed, there was a view of a lack of political will among stakeholders, especially the Government of Malawi, to act on CCA activities in general. Members of the NGO community, who were interviewed at the national scale, felt that the national CCA policies and actions were reactive. This was particularly noticeable in the aftermath of the 2015 floods, where some actors felt that only very limited DRM was conducted to prevent another largescale flood from taking place again, despite the flood-prone nature of the Lower Shire Valley:

“In Malawi, I think...we seem to be more reactive and responsive than proactive because like for now what I’m asking myself is we basically know what’s going to happen...and what are we doing about it?...Then comes January or February [and] it is flooding and we are surprised but didn’t we know?” (N/NGO_4)

It was felt that this complacency and donor dependency for action on CCA has contributed in preventing the full potential of gender mainstreaming from being developed. If climate actions are reactionary in nature, especially after natural disasters, there is limited potential to include essential gendered indicators within project analysis.

A second barrier preventing the gender mainstreaming potential in CCA activities, expressed by some key actors, was concerns that donors cherry-picked projects for funding. For example, during interviews, these key actors expressed concerns that donors were happy to enforce gender balance and gender quotas as a necessity for projects to win funding. However, donors appeared reluctant to fund more indirect activities, such as gender sensitisation or civic education on gender equality within rural communities, to change inhibiting gender norms:

“when it is food security where donors are bringing a bag with their Irish Aid stamp, it is easier for them, they will support that field but there are some fields that are so abstract, when you approach donors it is so difficult to convince them to give you funding...” (N/NGO_2)

This perception that donors fail to engage and fund indirect activities such as working to change gender norms and promoting equality, limits the potential to create truly transformative gender-inclusive CCA projects.

There was also a notable absence of any monitoring, evaluation and accountability processes on the implementation of gender activities employed by NGOs. This result is supported by findings from Desai (2002), which suggests that NGOs rarely evaluate their interventions in the context of wider social and cultural change. This was an emergent theme among state and NGO actors at national and subnational scale in Malawi, who were also consistently vague on the accountability actions in place, as seen in this quote from a national level actor:

“One of the challenges has been that people always take gender as an additional thing just put a statement we’ll include gender, but in [the] programming you don’t have clear indicators for gender...and nobody tracks this, [so it] becomes really difficult. I’ve seen some improvement with time, even in projects which have been approved recently, you have to have a [gender] budget and some indicators for gender as well, so as I’ve said that most of the projects we’ve had were looking at national level planning instruments and the like, of course gender has been incorporated but the final result will be how they will translate in practice, but I can’t tell because it is government implementing the project” (N/NGO_3)

This quote indicated that there has been an improvement in the inclusion of gender considerations in budgeting and indicators. However, the reporting on the implementation of these considerations appeared of less importance and could not be measured by the interviewee. If proper accountability measures, such as clearly outlined gender objectives, procedures, indices to measure outcomes and dedicated leadership, were in place, understanding the impact or “final result” would be easier to establish. This lends itself to the concern of gender mainstreaming being a box-ticking exercise (Mukhopadhyay, 2004). The results are further supported by findings from Koester et al. (2016), which showed that monitoring and evaluation is oriented towards bureaucratic accountability and reporting, rather than towards accountability to beneficiaries. It is likely that the emphasis on gender balance within projects as the main means of gender mainstreaming is because this is the easiest, quantifiable, box to tick.

Gender relations within the public sector in Malawi are addressed through a National Gender Machinery, the focal point to coordinate all government interventions to promote gender equality. Under this structure, each Government Department assigns a gender focal point (GFP). At the time of data collection, the GFP is not a stand-alone position within each Department, rather, it was an additional role that was assigned to an existing member of staff, often serving at a low grade, with a full workload and no gender expertise. Therefore, gender issues were often left unaddressed, while other work duties were prioritised. As a result, it was felt by representatives from the Ministry of Gender, Children, Disability and Social Welfare that the GFPs were not fully accountable to the Ministry of Gender, as they are not employed directly by them:

“they are not accountable to us, you cannot even ask for reports, you cannot hold them accountable because they are looking at gender as an add on, they have already [a] well stipulated list of responsibilities which they are supposed to do as maybe as engineers...and when you talk about gender they say yeah I think when I have time I will do this” (N/GOV_2)

Moser (2005) conducted an audit of the United Kingdom’s Department of International Development engagement in Malawi and concluded that the Ministry of Gender, Children, Disability and Social Welfare had a weak influencing power within the political structure. When the Ministry of Gender attempted to introduce gender mainstreaming across all Government activities, it faced resistance from other Government Departments. In research conducted for this thesis, interviews with representatives from the Ministry of Gender, Children, Disability and Social Welfare revealed that the issue of weak influencing power and the lack of capacity remains persistent today.

A common theme that emerged through thematic analysis was the perception of cultural barriers preventing the full implementation of gender mainstreaming at community-level projects and programmes. This theme was notable in government and NGO actors across national and subnational scale, and did not vary greatly between the scales. The barriers that prevent women from achieving equality can be broken down into sub-categories of education; leadership and decision making opportunities; and traditional and cultural practices.

Numerous actors discussed the limited education and high illiteracy rates of women in rural areas as a key issue surrounding women's participation in leadership roles in community development, CCA and disaster committees. World Bank data (2017b) indicates that literacy rates in Malawi are 70 percent for males and 55 percent females in 2015. Another recent report indicated literacy levels of 81 percent for males and 66 percent for females (Government of Malawi, 2017b). Both documents suggest an evident disparity between male and female literacy rates. From key actors, education and illiteracy were understood here as having a two-dimensional barrier for women's participation: firstly, subnational government actors identified that it was preferable that committee leaders were literate to enable ease of reporting back and disseminating information:

"I have indicated illiteracy is a challenge here, which means when you want to choose a leader, you still need someone who is able to read and write, but we are trying to ensure that we have mainstreamed gender issues in disaster risk management and climate change because when we are hit by a disaster it is usually the women which suffers most" (L/GOV_7)

Secondly, national key actors also identified that illiteracy impacted on the confidence of women to put themselves forward for leadership positions. While organisations and district councils have worked to increase women's participation in groups and committees, it had been noted that women were reluctant to participate. When they did participate, their input was often limited, and they looked to men to lead discussions:

"The other issue is that of confidence among women, because a lot of the people within the Chikwawa and Nsanje area, especially women, are illiterate and because of this it really puts them in a situation that they maybe do not feel comfortable to be forthcoming to volunteer themselves because they don't have trust in themselves" (N/NGO_6)

An alternative view was expressed by other national actors who considered that women faced difficulty in leadership and decision-making positions because of stringent gender relations. These relations have historically attributed power to men. As a result,

women do not feel that they have ownership within decision-making and look to men to be the final decision makers:

“there are communities where women do not participate [in community leadership], possibly because they feel like men are supposed to do it and if anything, you go there with a project and you try to promote [gender balance], you still find that when doing committee selection, you ask for at least 40 or 50 percent women, they do that because you’ve, not forced, but kind of coerced them to do that. But when you try to analyse [a woman’s] contribution towards a committee, if she is a treasurer, if she is a secretary or even a chair lady, you still find that at the end of the day, I may be just [an ordinary] committee member, I am a man, even the chair lady will look up to me as the final decider” (N/NGO_5)

Cultural practices at the local scale were perceived by national and subnational actors to be barriers for successful gender mainstreaming in CCA activities. National and subnational actors held the view that traditional leaders and community members resist the inclusion of gender considerations in community projects and activities, as it is perceived that traditional leaders fear the changes in traditional gender identities and roles. This quote, cited earlier (N/NGO_1, p.126), demonstrates the perceived reluctance of traditional leaders to accept gender mainstreaming actions. However, there is little formal acknowledgement the role which personal gender biases amongst actors at the subnational or national scales can impact on policy development and implementation. A quote, taken from an interview with a district government representative, reflects that gender biases do impact on policy-makers and policy implementation at the national and subnational scale:

“it’s becoming a hot debate, the issue of gender, it is included in several areas, it is becoming common practice now ... I may not be able to sufficiently say the impacts of gender mainstreaming, what I know is that we are mainstreaming. Where we have a challenge would be the actual participation in terms of their ability, to me they seem to slack in terms of delivery, if they are given a responsibility they are barely able to deliver, they tend to demean themselves” (L/GOV_1)

This key actor, while discussing women’s participation in the largest CCA project in the Lower Shire Valley, presents how deeply rooted perceptions of a women’s roles,

responsibilities and perceived capabilities may affect gender mainstreaming at all scales. This statement points to a deeply ingrained misogynistic mind-set at the subnational level, emphasising that resistance to gender mainstreaming is not solely a local level issue. The interviewee also sheds lights on how gender mainstreaming is approached nationally within Malawi; as an issue which is largely ignored by actors at the national and subnational scale.

Traditional leaders play a considerable role in assigning resources and distributing development activities, including CCA. As a result, donors, NGOs and the Government often have little say in the distribution process. The Government relies on traditional leaders to maintain registers of residents, and find those eligible for interventions. In addition, traditional leaders are the gatekeepers to aid, and approve interventions for a given area, while also approving individuals to receive specific interventions (Eggen, 2011). There are concerns in the literature that current methods of resource distribution can heighten vulnerability (Wood, et al., 2017).

Interviews with district council officers described how projects, inputs, and resources are allocated at local level. Organisations with CCA finance are directed by the District Council towards relevant Traditional Authority areas, sub-divisions of districts, to carry out activities. The selected Traditional Authority is designated based on climate vulnerability, suitability for activity, and a consideration for equally dispersing activities within districts, ensuring there is no overlap of resources. Once an organisation is assigned an area in which to conduct work, the traditional leaders and community committees become involved in the selection process of households. Previous research argues powerful men, such as chiefs, often control resources and make decisions for their community members (Dikito-Wachtmeister, 2000). Owing to its largely patriarchal social structure, men overwhelmingly hold the position of traditional leaders. Despite this, efforts have been made to encourage women's participation in community committees, however, questions have been raised about the types of women who are elected to groups and committees and their connections to village elites (Wong, 2016). As an interview with a national NGO actor, cited earlier (N/NGO_5, p.134), revealed, while women may be participating within groups and committees, they often look to male group members to make decisions, even when holding authoritative positions in the structure.

The current decision-making process by traditional leaders for access to inputs and resources has been criticised for inconsistencies in the distribution process. Examples of this from Malawi can be found within critiques of the Food Input Subsidy Program (FISP), the government-led, largescale programme distributing maize seed and fertiliser every year. Evidence from Chibwana and Fisher (2011) and Arndt et al. (2015) showed inconsistencies in FISP distribution and suggested that the most vulnerable households were not always targeted, despite this being an outlined objective of the programme. This raised concerns regarding the selection processes employed by traditional leaders. As such, the current method of distribution, through traditional leaders, has the potential to heighten the vulnerability of the most marginalised within communities. Numerous accounts from focus groups conducted for this research provided evidence that humanitarian food aid is redistributed by traditional leaders, once development organisations have completed their distribution. This can result in the most food insecure households losing valuable sustenance by sharing these resources with more resilient households within the community, including traditional leaders. National and subnational level actors expressed concerns that this perpetuates a vulnerability cycle:

“...there is something else that we discovered...when the beneficiaries have been registered [for food aid], when you leave, the chiefs give a directive to all the beneficiaries to give them, for example if you have given them one kg of sugar, then every beneficiary gives a cup of sugar to the chief and by the end of the day you find that the chief has ... the whole warehouse with him”
(L/NGO_2).

It must be recognised that these traditional powers are not always considered within international or national policies, despite being a factor which directly affects the implementation and access for marginalised groups. Both national and subnational actors alluded to traditions of cultural tribalism and chieftaincy as a key barrier to the inclusion of gender in actions, ultimately preventing communities from adapting to climate change and preventing the most vulnerable from receiving inputs. This quote (L/NGO_2) also indicates a resistance amongst traditional leaders to development-led distributional practices of CCA inputs. However, traditional leaders did not view tribalism as a barrier affecting gender mainstreaming. In fact, traditional leaders interviewed stated that they welcome the increase of gendered actions within communities, and stated that they

“embrace and encourage the promotion of gender equality by government and NGOs” (L/TA_2):

“the traditional authorities have been encouraged to include women in their tribunals, so that should issues pertaining to women arise at these tribunals, the woman will be able to understand a fellow woman’s issue at that particular case” (L/GOV_6)

Furthermore, traditional leaders discussed the necessity for them to lead by example, using the example of increasing women’s participation within Traditional Authority tribunals for settling community disputes. It was felt that women’s participation on the panel allowed the decision-making process to be more considerate of the needs and experiences of women. Although Traditional Authority actors interviewed during this research expressed positive views of incorporating gender relations within community projects and actions, how these interactions matched with the traditional practices of redistribution of inputs and community sharing was not addressed by traditional leaders. The cultural practices presented here on distribution and redistribution of resources will be explored from a local scale and community perspective in the next chapter.

6.5. Conclusion

This chapter has answered RQ2: How are CCA resources distributed at subnational scale influenced by gender mainstreaming in the Lower Shire Valley, Malawi?

The results presented within this chapter indicate that, as within the global scale, there has been an increased articulation of gender relations in CCA, and in governance more broadly, within the national and subnational scales in Malawi. Similarly, the concerns presented by critics of the global scale, that gender mainstreaming has become a bureaucratic box-ticking exercise, appear to have manifested themselves in Malawi within a short space of time. While the discussion of gender mainstreaming has greatly increased in recent years, key actors, including actors from the Ministry of Gender, Children, Disability and Social Welfare feel as though they do not have sufficient power to ensure a full and comprehensive gender equality programme throughout all sectors.

This chapter also demonstrated that gender mainstreaming is largely donor driven in Malawi. As a result of this, while there is increased discussion of gender mainstreaming, there is lack of ownership and certainty surrounding what is necessary to fully mainstream gender within development and CCA projects. Interestingly, gender mainstreaming in CCA is considered in its infancy as compared to other sectors in Malawi. The Ministry of Gender, Children, Disability and Social Welfare stakeholder indicated that there were no clear guidelines on addressing gender in climate change. However, this research ranked Malawi's NDC as a gender sensitive policy, because gender issues were noted to be addressed unconditionally (i.e. without external assistance). Upon thematic analysis of national and subnational data, it appears that this commitment is unlikely to come to fruition, as clear guidelines as to how achieve this are lacking.

There is a twofold disassociation of gender mainstreaming taking place between the national and subnational scales in Malawi. Firstly, no actor groups, excluding donors, see gender mainstreaming as their responsibility. Even donor-driven actions appear to be limited to bureaucratic exercises, such as increasing women's participation. Through interviews, it was also determined that there appears to be little emphasis on the monitoring, evaluation and accountability of gender mainstreaming beyond gendered participation records. Furthermore, the findings indicate that donors are failing to support the development of gender knowledge capacity of local communities, and key concepts of gender mainstreaming remain alien concepts which are disregarded after implementation, and subject to existing biases. At the national scale, actors feel gender mainstreaming should take place within the district, while at the subnational scale, district officers believe that donors and NGOs need to provide greater support for gender mainstreaming. Secondly, it was found that national and subnational actors have dissociated themselves from traditional and cultural values which are often discriminatory in nature towards women and minority groups. These values are considered to be predominant at local, and particularly at rural, scale and result from tribalism and traditional leadership. However, it was noted within some interviews that deep-rooted gender biases and misogynistic mind-sets also affect how subnational and national stakeholders view women accessing and participating in CCA. Conversely, both Traditional Authorities interviewed expressed progressive views in interviews with them, and considered themselves to be leading by example.

The results from this chapter indicate that women are considered the most vulnerable to climate change, a thread that connects gender and climate change literature and international and national policies to the situation in Malawi. However, an interesting finding from this research is that while actors are aware that women are engaging in high risk activities such as transactional sex, early marriage, and dangerous food harvesting, these highly gendered high-risk coping mechanisms are not being addressed by current interventions. These activities have been largely ignored within policies and activities of stakeholders working on coping with climate change and disasters in the Lower Shire Valley. This is perhaps due to the sensitive nature of such topics, or the view that these high-risk activities are considered as normal coping strategies for women responding to climate change or food insecurity. This links to the failure of non-context specific donor-led gender mainstreaming. Subnational NGO actors stated in interviews that there is uncertainty as to how gender should be considered within projects. It is apparent that numerous organisations are including gender considerations in order to obtain funding without considering the complexities of gender relations within communities. Generally, project implementers consider a CCA project to be gender mainstreamed when a gender balance in project activities and committees has been achieved, indicating a very limited appreciation of gender issues within rural areas.

The following chapter will analyse local level data collected in climate vulnerable communities in the Lower Shire Valley, and the chapter will provide an insight into whether these donor-led gender mainstreaming actions have played a role in assisting climate vulnerable groups to adapt. In doing this, the chapter will take a bottom-up approach by analysing the needs and requirements of various social categories of rural communities within the Lower Shire Valley, in order to understand how the current structure represents their needs.

7. The impact of current practices of gender mainstreaming versus the intersecting adaptation needs

7.1. Introduction

Within this chapter, a deeper understanding of the current practices of gender mainstreaming in Malawi will be investigated, answering, RQ3: Are there differentiated experiences of climate change (based on gender, age and other social identifiers) in the Lower Shire Valley; and RQ4: How do different groups (based on gender, age and other social identifiers) in the Lower Shire Valley access CCA resources?

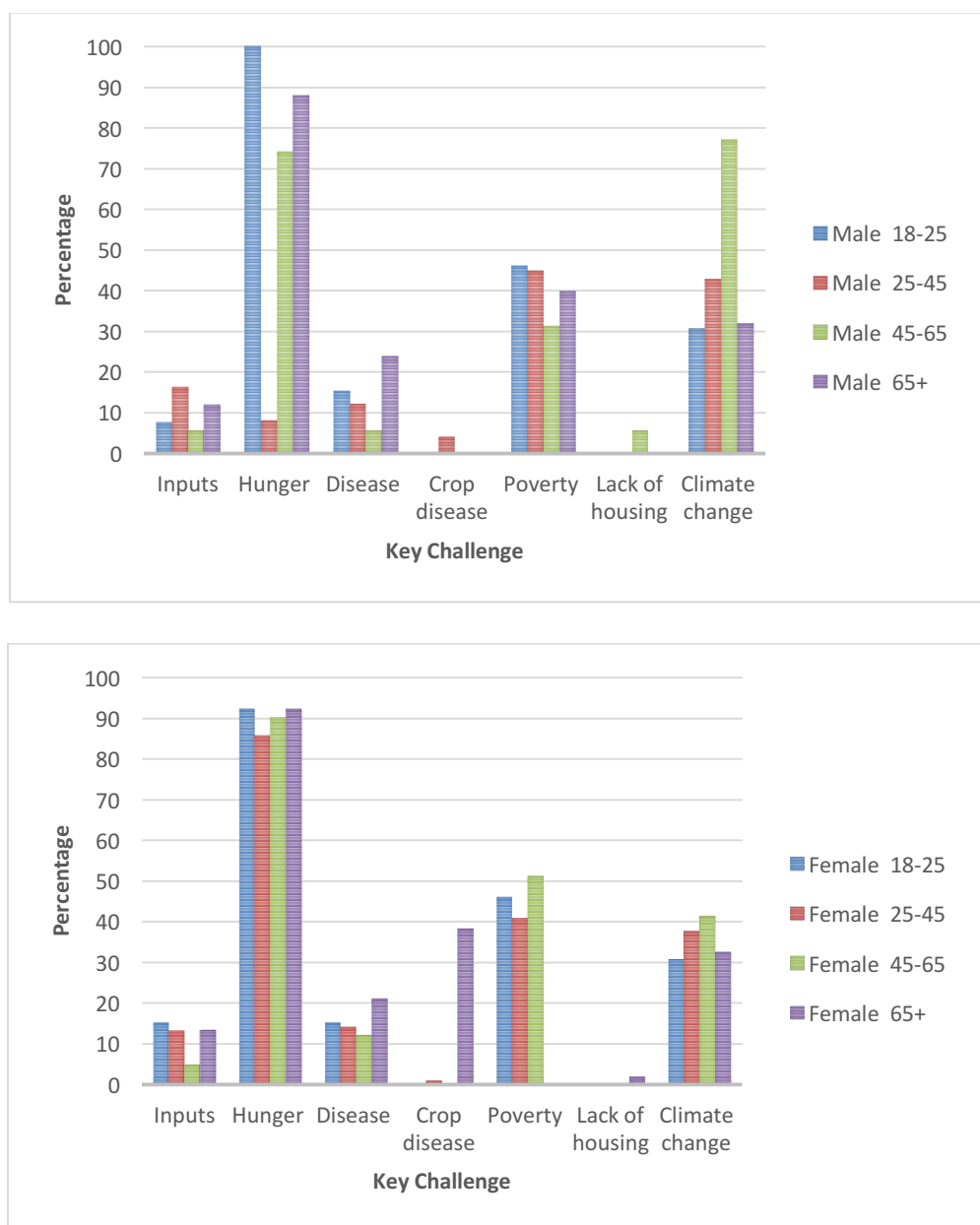
As presented in Chapter Six, there are clear gaps relating to the implementation of gender mainstreaming within CCA activities. However, results from Chapter Six demonstrate that there has been an effort to include gender considerations within CCA projects, largely because of donor expectations. From the results in the previous chapter, it also emerged that CCA activities are considered as being gender mainstreamed when efforts are made to create gender balance, through increased representation and parity in participation of women. The effect of this, and other gender mainstreaming efforts, at the local level will be reviewed in this chapter. Through data collected via surveys and focus group discussions (FGDs) the access to CCA activities of various social groups will be analysed. Furthermore, this chapter will also present the intersection of identified needs in the face of environmental change within Lower Shire Valley. This is carried out to understand how the needs of various groups within rural areas are represented and considered throughout the scales explored in previous chapters. This presents a bottom-up view of the current impacts of gender mainstreaming in CCA activities.

7.2. The major challenges identified in Lower Shire Valley

Survey data indicates that the challenges impacting communities do not vary greatly between key social groups, with only minor outliers. The graphs (Figure 9,

disaggregated by sex) displays the top challenges of key social groups recorded in survey data. It shows that hunger is considered the main challenge for communities, excluding males aged between 25– 45, in the Lower Shire Valley. Furthermore, the graph indicates that poverty, access to services and inputs are some of the other key challenges facing communities. It is also notable that high percentages of all social groups surveyed consider climate change as a major challenge to their lives and livelihoods. The graph indicates that crop disease and lack of housing are challenges of less importance to communities.

Figure 9: Disaggregated key challenges



The nuances of challenges were discussed in greater detail within the FGDs. Each group determined the five top challenges facing their communities and proceeded to rank these challenges in importance to them. This process created debate and highlighted the differences between groups. From this process, the top five challenges have been grouped in six thematic areas during analysis: Health; Social services; Assets; Finance; Development; Environment. The results from the key challenge ranking is presented below; Figure 10 provides an overview of the ranked categories of challenges for each FGD grouping. These thematic challenges are explored in detail.

Figure 10: Challenge ranking identified in FGDs



As seen in Figure 10, health, which includes issues of hunger within this section of the research, was seen as the critical issue for communities within the Lower Shire Valley. It ranks as the top challenge in four out of five male FGDs, three out of five female FGDs, three out of four mixed FGDs, and one out of the four youth FGDs. Hunger being determined as a key challenge was an expected finding, considering that the communities in which data was collected had experienced two consecutive climate-related disasters,

which greatly impacted food production and food security in 2016. Large quantities of participants experienced crop failure in 2016, with 70 percent of women and 59 percent of men stating near zero crop yield at the time of data collection. Identifying hunger as the greatest challenge for the community is reflected in the survey data, which showed all groups of survey participants, excluding middle-aged males, viewing hunger as their biggest challenge. This is likely to be the result of gender relations at the household level, and an expression of women's role as food producers and carers.

Other health-related challenges raised within the FGDs, include the increase of disease outbreaks. This was raised in two male, one female and one mixed FGDs. Communities felt that there had been an increase in diseases, such as malaria and cholera. Evidence shows that climate change will impact, mostly adversely, human health (WHO, 2017; McMichael, et al., 2006), and Malawi experienced the impacts of a strong El Niño/Southern Oscillation in 2016. Patz, et al. (2005) provide evidence that El Niño and longer-term climate change increases the likelihood of outbreaks of cholera and malaria epidemics. Furthermore, within some FGDs (two male; one mixed) there was a noted increase of other diseases, indirectly related to climate change. These were specifically concerns surrounding an increase of sexually transmitted diseases.

Challenges surrounding limited access to social services, amenities and public goods is a commonly cited challenge across the FGDs. This issue was raised 22 times in FGD discussions, was often identified more than once in the ranking of challenges. Mostly, these issues surrounded the lack of access to water and distance required to travel to amenities/services such as schools, markets and clinics. Lack of access to water was considered a key challenge within ten FGDs: three male, five female, and two mixed FGDs. These groups stated that exemplars of this challenge were long travel distances, limited access to water sources or resulted in community not accessing clean water. The second social service-related challenge was the limited access to schools, resulting from relocation of communities. This resulted in high incidences of school absenteeism during extreme weather events such as flooding and drought. This was considered as important by six focus groups: two male, two female and two youth groups. Finally, the community noted the lack of the availability of markets, clinics, nurseries and other social resources, such as maintained roads and access to electricity, which they considered necessary for a

well-functioning community. This was noted by two female, two youth and one mixed FGDs.

Considerable percentages of social categories record the effects of climate change, or environmental issues, as a key challenge within survey data (Figure 9). This was particularly noted by male groups aged 25–45. However, within FGDs, climate change itself was only identified as a key challenge once, in a mixed group FGD. This group (Mx/FG_2) only identified environmental issues within their top five challenges, these included floods, drought, whirlwinds, climate change and an increase in pests attacking crops. While climate change is only explicitly discussed as a challenge in this FGD, other environmental issues including floods, drought, disasters and infertile land are frequently cited, 16 times in total. These are grouped within the environment theme, and as reflected in Figure 10, and were referenced by six male, six mixed three youth and one female FGDs. It is interesting to note that female FGDs were the least likely to report environmental issues amongst their top five challenges, as the academic and grey literature, as well as development practitioners, typically consider women as the most vulnerable to environmental changes. While climate change was not readily ranked in the top five during challenge ranking activities whilst conducting FGDs, it was readily stated as contributing factor to many of challenges reported. This is demonstrated in the following excerpt:

“even issues of housing, utensils and land. They are all a result of flooding which is resulted from climate change. As well as other issues of disease outbreak, malnutrition and death, people are always worried and they are not happy” (F/FG_3)¹

This extract shows that climate change-related challenges affect communities directly, through the loss of livelihood, crops and key assets, and indirectly, through emotional and physiological distress.

Numerous areas within the Lower Shire Valley suffered extreme flooding in 2015, which resulted in the destruction or abandonment of whole villages, including homes, crops, animals and assets. All participants in this research were directly affected by the

¹ Focus group excerpts have been translated through fieldwork interpreter, not direct quote from group.

floods, and a large percentage (70%) noted at least temporary displacement after the 2015 floods. As a result, the lack or loss of assets was determined as a key challenge within seven FGD (three male, three female and one mixed). Specifically, the FGDs noted the lack of, or loss of, housing (five groups) and land (three groups). Permanent resettlement had commenced during data collection in 2016, this was supported by government and NGOs within the area. External support to construct new houses for communities was provided by organisations such as the Malawi Red Cross Society and International Organisation for Migration (IOM). However, community reconstruction projects were extremely slow, and no new villages were completely resettled in the data collection areas in 2016. This was a noted challenge among communities, who had resettled or were intending to resettle as new homes were presently not habitable.

The lack of other assets were recorded within challenge ranking activities. These included items such as kitchen and household utensils, and the lack of these were discussed by two female and one mixed FGDs. It was noted by these groups that the loss of such assets created challenges impacting on their day-to-day lives. Survey data highlighted that only four percent of female participants noted the loss of utensils as one of their top two challenges. However, no male FGDs or survey respondents reported the loss of household utensils. The differentiated value assigned to such assets was observed throughout the challenge ranking task conducted by one of the mixed FGDs (Mx/FG_4). Women within this group identified the loss, or lack, of kitchen utensils as a key challenge, however, during the ranking processes the issue did not feature. This was largely due to the issue being overruled by dominant male participants who did not view the loss of household utensils as a key challenge. This highlights the different day-to-day needs of men and women within the Lower Shire Valley and value attributed to such items. While women desired smaller, seemingly less important items, men reported the lack of large-scale support as their dominant challenges, including the lack of roads, financial support for businesses and developmental support.

The lack of access to CCA, development resources and relief inputs was a common challenge, discussed with ten FGDs. The expression of this challenge was discussed in three male, three female, three mixed and one youth FGD. Three of the groups simply noted a need for inputs to assist overall development within their communities. It was

noted by seven groups that the brunt of this challenge was manifested in the lack of access to agricultural inputs. Other inputs-related challenges discussed within FGDs were: the lack of DRM and disaster relief items (discussed by one mixed group), and the need for development assistance to support Water, Sanitation and Hygiene (WASH) facilities in communities (one male group). The perceived challenge surrounding DRM and WASH activities were established in FGDs with recently resettled communities. It was noted by all focus groups, when discussing CCA activities, that there were development organisations active in the area, but it was felt that resources were distributed in small amounts to few households. Evidence from survey data suggested that 59 percent of participant households were in receipt of inputs from the Government of Malawi or development organisations. The evidence showed the 20 percent of household participants reported receiving no development or CCA support, while 21 percent stated they did not know whether their household received input support.

The view of access to development and CCA resources as a key challenge was expressed differently amongst youth FGDs, as compared to the rest of the community.² While youth FGDs stated the lack of access to inputs and resources, their frustration lay with the feeling that they were not targeted for development or CCA projects. This resulted in the feeling amongst youths that youths were a forgotten group within community distribution. Youth FGDs attributed this feeling to their limited land rights and their positions within households, as they were often still connected to a larger family structure. Within the larger family structure, elders or senior family members tended to take control of development or CCA inputs, limiting their access to youths. Furthermore, youth FGDs suggested that a key development challenge was their limited access to communicate directly with development organisations, resulting in their limited opportunity to express their own specific, and differentiated, needs.

Overall, amongst the six thematic challenge areas identified, access to finance was the least frequently articulated among the FGDs. Discussions surrounding finance and lack of financial opportunities and resources consistently featured as a major concern during discussions with only one social group; the youth FGDs. The desire, or expressed need,

² No sex-disaggregated FGD data available for youth groups, as all were conducted as mixed groups. This was due to a persistent language and cultural misunderstanding regarding how to define a 'youth' group and has been discussed in Chapter 4.

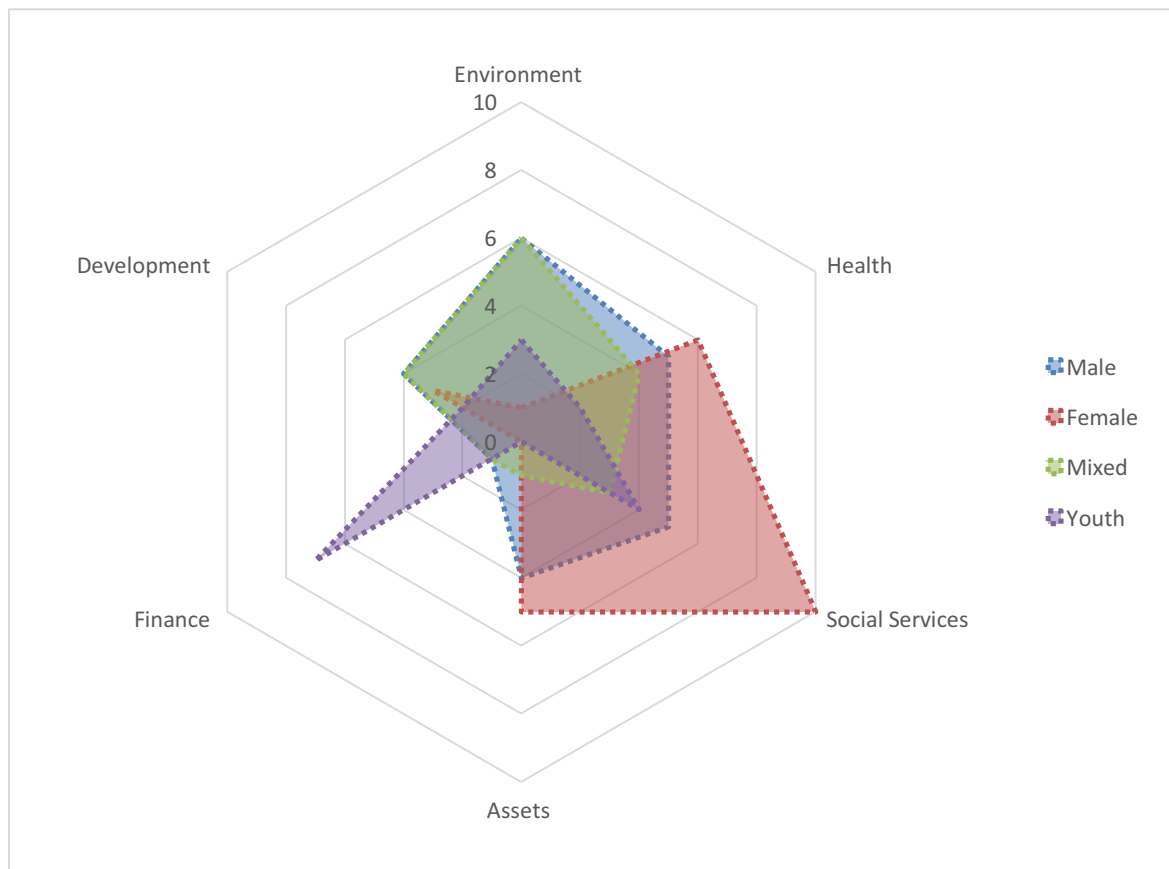
for more financial opportunities or disposable income was a common theme throughout the four youth FGDs conducted. The view was confirmed from survey data, where poverty was listed as the second highest key challenge for both males and females, aged 18–25, secondly only to hunger. This view of finance as a key challenge is juxtaposed to the challenges outlined from the other FGDs. Male, female and mixed groups did not readily express the need for finance, rather, they discussed development support for their agricultural livelihoods. Only one male and one mixed FGD mentioned access to finance as a key challenge; and was ranked fifth in both of these groups.

Poverty remains a key concern within the broader community, and all social groups surveyed identified this (seen in Figure 9). During focus groups, youths expressed the need to for finance to be made available to start businesses, for school fees, school resources and clothes. Upon further discussion, it became apparent that youth groups did not see agriculture as a sustainable livelihood, and were looking for opportunities to diversify from agriculture by accessing education and availing of business opportunities. An alternative view is that youths do not have access to land ownership, and as a result, express the need for business opportunities to create an independent livelihood and income. Regardless of this, it is clear that youth groups have a very specific, and different, set of needs as compared to other age groups within the community.

A visual overview of the collated differentiated distribution of ranked key challenge themes in order of importance and frequency is presented in Figure 11. From this visual overview, it is clear that female FGDs place the greatest emphasis on issues surrounding access to social services and amenities, along with issues of health. The graph shows a different distribution of values found within youth FGDs, who ranked limited access to finance as their greatest challenge. The challenges determined within male and female FGDs do not vary greatly and the core challenges of hunger, environmental issues and access to new large assets of land and housing are evident across both groups. Even considering this, Figure 11 illustrates to see how all mixed FGDs overlap with the views presented in male FGDs. This was demonstrated within the example of a mixed FGD (Mx/FG_4) where dominant men over-ruled the female view that a lack of kitchen utensils was to be considered in the challenge ranking. This visual overview highlights the

contrasting view of key challenges among men and women, the dominance and decision-making power of men in a group setting.

Figure 11: Comparative overview of importance of key challenges identified in FGDs

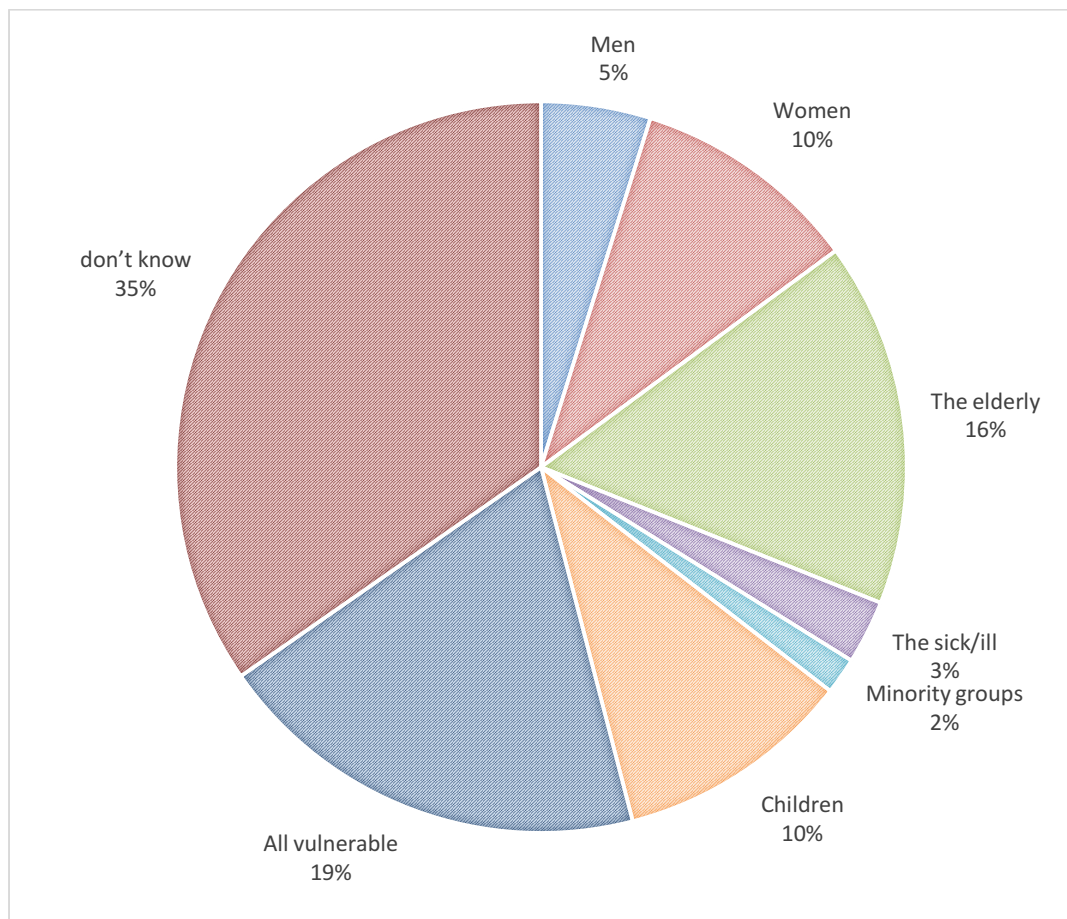


7.3. Views on vulnerability

Similar to a common theme in the reviewed literature (Terry, 2009; Denton, 2002; Denton, 2000; Dikito-Wachtmeister, 2000), the findings from previous chapters (Chapter Five and Six), show that key actors and policies across international, national and subnational scales have a tendency to view women as a vulnerable group to climate change and its resulting impacts and challenges. This perspective of vulnerability emerges from women's productive and reproductive roles in communities, with vulnerability heightened through men's opportunities to migrate, which creates a greater burden on women. Perceptions of vulnerability to climate change and key challenges were explored at local (community) scale. Figure 12 presents, in percentages, the key groups identified as vulnerable to climate change, disasters and resulting challenges, as determined

through household survey data. The graph shows that through community determinations, women are not identified as the most vulnerable group. The results show that only 10 percent of survey participants view women as a key vulnerable group, along with children. The graph shows that the elderly are considered a more vulnerable than women, with 16 percent of participants determining them as the most vulnerable to climate change and its impacts. One finding worthy of further comment is that over half of survey participants determine that everyone in the community is equally vulnerable (19 percent) or do not know, or cannot distinguish, if some groups are more vulnerable than others (35 percent).

Figure 12: Views on vulnerability (from survey data)



Upon disaggregated analysis, the results show that women did not readily view themselves as vulnerable. Results from the surveys indicate that less than ten percent within each female age group identified women as vulnerable, and no survey participants in age group 45–65 viewed women as vulnerable to climate change and its impacts. In

FGDs, only one female group expressed the view of women's vulnerability to environmental challenges. This group only felt that they were impacted by climate change as they are the main carers for children and the elderly, who were identified as vulnerable during this discussion. The group felt that recent experiences of floods and drought greatly affected their role as food producers and providers, and were often unable to obtain enough food for the household. Although all other female FGDs expressed similar difficulties in producing enough food for the household, no other group explicitly identified themselves as vulnerable to climate change and its impacts. Three male-led FGDs considered women a key vulnerable group to climate change and its challenges. An interesting discussion emerged during one female FGD, when a small group of women arrived early, while a male FGD was being conducted and participants of this female FGD overheard the men discuss the vulnerability of women. When the female FGD started, one female participant expressed that "our views will be very different to that of the men" (F/FG_5). An in-depth discussion of vulnerability ensued, and it was clear these women did not feel vulnerable or less resilient to climate change impacts, stating:

"The elderly, sick and disabled are more impacted by the challenges discussed because they cannot flee during floods, during hunger they need to be supported by community members. At least women are able-bodied, they can work to provide for family" (F/FG_5)³

Women readily cited children (four times) and the elderly (two times) as the most vulnerable groups during FGDs, which reinforces this excerpt from F/FG_5. A visual overview of the comparative views of vulnerability collated from the FGDs is presented in Figure 13.

Figure 13: Comparative overview of groups considered vulnerable identified in FGDs

³ Not a direct quote from FGDs.

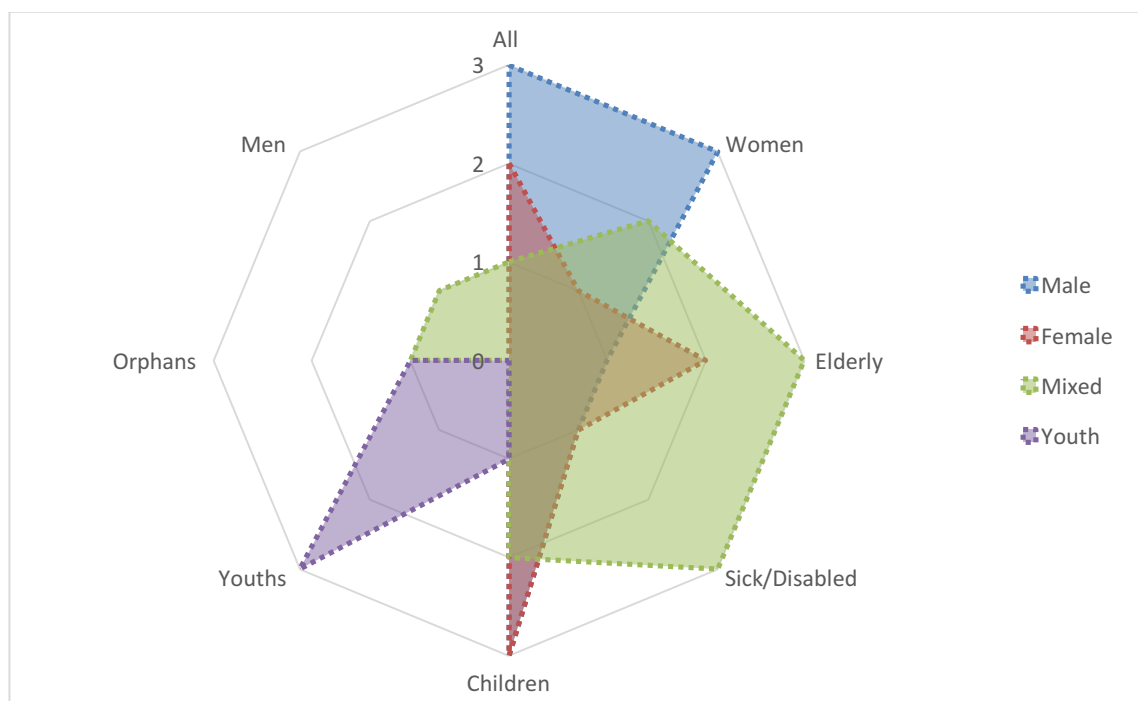


Figure 13 demonstrates that the elderly were viewed as those most vulnerable to climate change and its effects by three mixed and two female FGDs. This is echoed by survey participants (as seen in Figure 12) with all age categories viewing the elderly as the most vulnerable to the impacts and challenges arising from climate change. These responses range from seven percent of women (aged 45 – 65) to 32 percent of men (aged 65+). Unlike women, elderly groups self-identify as vulnerable to climate change impacts. Both elderly groups (male and female, 65+) identify themselves as more vulnerable than any other social group. Survey data indicates that 69 percent of elderly (65+) women participants considered climate variability and climate change a great (n. 27) or significant (n. 9) threat to their lives and livelihoods. Only one respondent in this category did not consider climate change as a threat to her livelihood, while five respondents did not know whether climate change was considered a threat. Amongst the elderly (65+) men surveyed, 84 percent considered climate variability and climate change as a great (n.16) or significant (n.5) threat to their lives and livelihoods. Four participants viewed climate change as somewhat (n.2) or moderately (n.2) threatening to their lives.

Several FGDs, including female, male and mixed groups, elaborated on the vulnerability of the elderly in several ways. Firstly, during times of disasters, such as flooding, the elderly are less likely to be able to flee to safety, and must rely on

community members to assist and even “carry them upland” (M_FG1). Secondly, during times of drought, it is felt that the elderly cannot avail of agricultural technologies to assist crop production, such as irrigation, because these often require physical strength, which community members feel the elderly lack. Finally, the FGDs determined that the elderly, the sick and orphan-headed households, were faced with heightened vulnerability in the wake of consecutive disasters due to an increased all-of-community vulnerability. Collective action is commonplace within rural Malawi, with communities coming together to assist those deemed most in need. This collective action was anecdotally described during an interview with a national actor:

“...as you are approaching agriculture season, someone in the village would organise, not a party as such, but they could cook sweet beer. The chief would organise people to come, so you go into an old persons’ garden or a disabled persons’ garden, you cultivate for them and then you drink the sweet beer and everyone goes home. You enjoyed it but you’re helping someone” (N/NGO_2)

Traditionally, neighbours, families and communities work together to assist those most vulnerable, by helping on farms and providing food and care to those in need. However, it was noted by communities that this type of support had not been provided, as a result of the consecutive disasters, which has heightened vulnerability and greatly impacted the whole community. Over half of all participants stated they had zero crop yield at the time of data collection. With this concern in mind, community members felt that they were not in a position to assist the more vulnerable through collective action, as they were focusing their energies on rebuilding the community, carrying out informal labour to maintain an income, or looking for food.

This view of heightened vulnerability within the whole community is reflected within the survey data. From analysis of the survey data, it was found that all age groups, ranging from seven percent of men and women aged 18-25 to 24 percent of men aged 25–45, viewed vulnerability to climate change and its impact as an all-of-community issue. This is also reflected within FGD data, presented in Figure 13. It shows that male FGDs frequently cited (three out of five groups) the whole community as vulnerable to climate change, while two female FGDs considered the whole community vulnerable. In all instances, the view of an all-of-community vulnerability is directly related to experiences

in the aftermath of the 2015 floods, which affected all members of the community to varying degrees, with ongoing food insecurity as a result of failed rains in 2016:

“All are equally affected by climate change, because we all stay in the same area and experience the same changes, so we don't believe that some can be affected more than others” (F/FG_2)⁴

Interestingly, youth FGDs did not actively identify the whole community as vulnerable to climate change and its impacts. Youths (aged 18–25) were the least likely to rank the whole community as vulnerable. This is reflected in both FGDs and survey (7%) data. From the outlined challenges that youths face, it is clear that this group hold a different perception of vulnerability, as compared to the adult population in the Lower Shire Valley. Youth FGDs did self-identify themselves as a key vulnerable group (three out of four), as seen in Figure 12. This view, held by youths, that they are the most vulnerable to climate change and its impact, was directly attributable to their lack of access to land. This, they felt, limited their livelihood options and led to feelings of being overlooked in development activities. However, one youth FGD also identified orphans and the elderly as vulnerable to climate change and its impacts.

An interesting observation noted throughout the analysis was that people with disabilities were not considered as a vulnerable group by any of the survey participants. However, within FGDs people with disabilities are regularly cited as a vulnerable group. This was raised within five FGDs; three mixed, one male and one female. In FGDs, it was observed that disability would often be used interchangeably with the term ‘the sick’. In Chichewa, Malawi’s local language, the literal translation for words describing people with disabilities are ‘the sick’ (Tembo, 2014), confirming that those who recorded ‘the sick’ as a vulnerable group were likely to be referring to people with disabilities. This finding highlights the exclusion of this group from society, and limits their potential to access resources, specifically in this case CCA. Tembo’s (2014) research indicates that the use of this terminology results in the stigmatisation and exclusion from resources, such as the large-scale government-led fertiliser subsidy programme, FISP.

From this analysis, it clear that community perceptions of vulnerability to climate change does not fully align with that of relevant stakeholders, policy decision-makers and

⁴ Not a direct quote from FGDs.

implementers, who decide where development inputs, adaptation practices and humanitarian aid is concentrated. Vulnerability in the Lower Shire Valley is often determined based on physical capability to farm or the ability to react quickly during times of disaster. Conversely, at the international, national and subnational levels, policies and actors view vulnerability based on social constructs, roles and responsibilities. In theory, it is on these vulnerabilities that CCA is allocated. The following section explores access to adaptation within the Lower Shire Valley.

7.4. Adaptation

Various forms of adaptation were recorded within communities. Community members who participated in surveys recorded up to three different adaptation practices being conducted within their household. These practices consisted of formal adaptation, informal adaptation, and maladaptation, or negative coping mechanisms.

Formal adaptation has been defined as any CCA activity that is supported by finance from government, donors, NGOs or CSOs. Within the Lower Shire Valley, the main formal adaptation activities taking place were climate smart agricultural practices, such as irrigation, the use of drought tolerant or early harvest crop varieties, and tree planting. Communities regularly recorded their access to humanitarian aid as a formal adaptation mechanism to cope with the changes in climate experienced. Humanitarian aid consisted of receiving food aid, social cash transfers and/or relief items, such as tents for temporary relocation. Both social cash transfers and food aid are designed to support the most vulnerable and ultra-poor households in alleviating food insecurity and poverty (Brugh, et al., 2017). Access to building materials, support in re-building damaged property and assisting in the resettlement to new locations were also considered as formal adaptation activities.

Informal adaptation has been defined as activities conducted that are not supported by the external actors of formal adaptation. This includes activities such as *ganyu*, piecework carried out to obtain small payments in the form of food or small sums of money (Whiteside, 2000). The findings from this research show that there is a large-scale dependency on *ganyu*, and within the following presentation of adaptation

activities, *ganyu* is treated as a standalone informal adaptation strategy. Other informal adaptation activities were recorded as other income-generating activities, such as engaging in small-scale businesses selling fish, fruit or vegetables, baked goods, charcoal, firewood, or bamboo. Engaging in formal employment was also recorded, though by very few, as an informal adaptation strategy.

The final adaptation strategy considered in this research are negative coping mechanisms; activities that are deemed to be harmful to people, communities, or the environment. This is also referred to as maladaptation. Included in these practices were; engaging in deforestation for the increased production of charcoal for sale, selling household assets, eating non-traditional food sources, engaging in transactional sex, and engaging in illegal activities, such as stealing crops and from homes. The disaggregated distribution of coping mechanisms used is presented in Table 13, collated from survey data.

Table 13: Disaggregated coping strategies employed by communities (from survey data)

	Formal adaptation		Humanitarian adaptation		Informal adaptation		Ganyu	Negative coping mechanism		
Total female (n.230)	n.70	31%	n.49	21%	n.21	9%	n.193	84%	n.70	32%
Total male (n.122)	n.36	30%	n.24	20%	n.15	12%	n.93	76%	n.40	32%

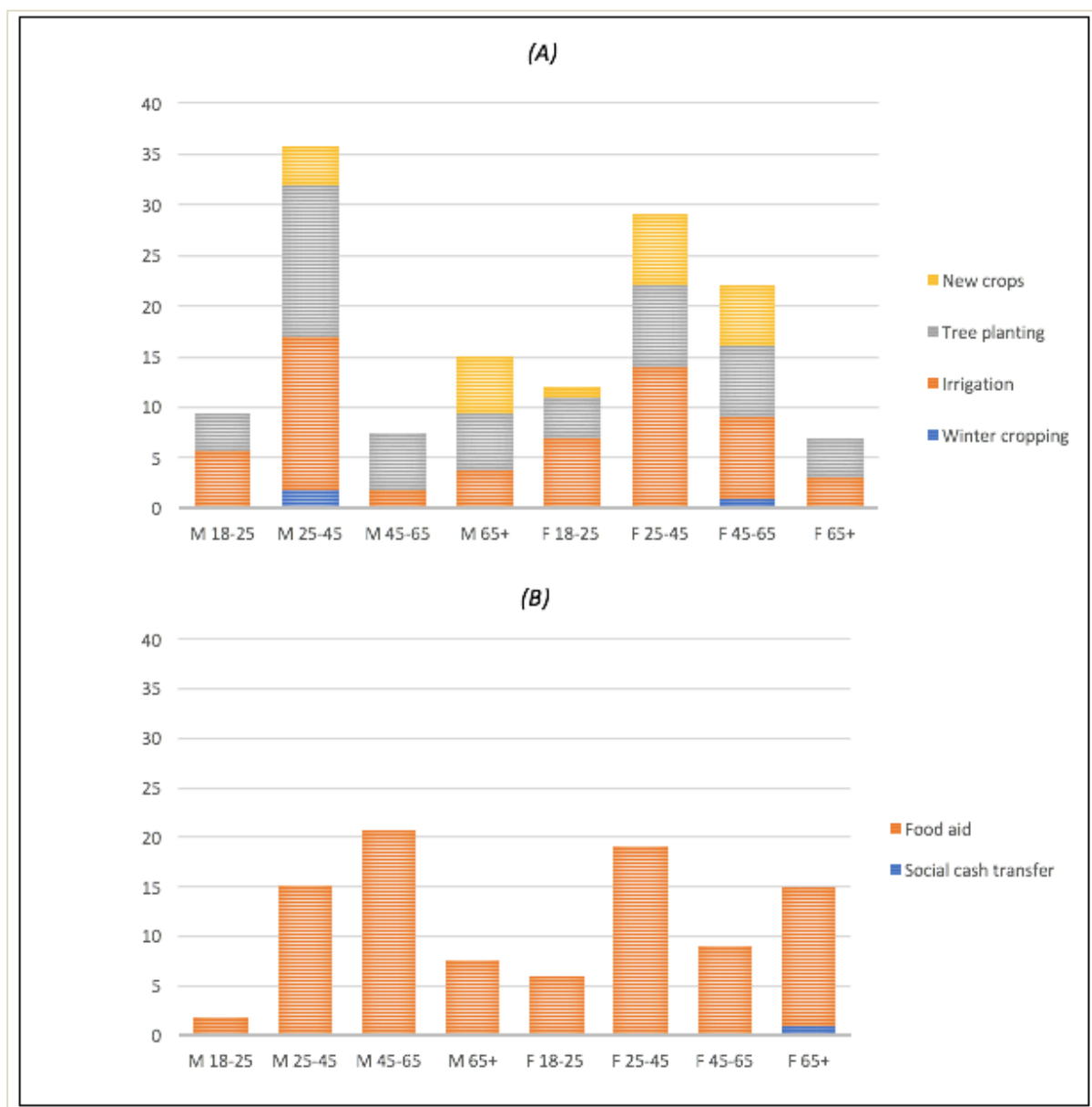
Table 13 shows that gender parity has been reached in accessing formal adaptation and humanitarian aid in the surveyed communities. Similar percentages, around 30 percent, of male and female participants report accessing these activities as a coping mechanism. This indicates that the gender balance efforts conducted by national and subnational actors have been successful. In survey data, the engagement in informal adaptation practices and negative coping mechanisms do not vary greatly between men and women, however, women have a higher reliance on *ganyu*. While the survey data presents similar rates of engagement in informal and negative coping mechanisms between men and women, FGDs suggested clear gender differences in the individual practices within these categories.

7.4.1. Access to formal adaptation

Analysing different social groups' access to CCA inputs and humanitarian aid gives insights to the impact of gender mainstreaming within policy actions to date. As indicated in Table 13, men and women have largely equal access to the outlined formal adaptation activities conducted in the Lower Shire Valley. The access to formal adaptation, agricultural inputs and humanitarian aid, reported by survey participants are reflected in Figure 14. Figure 14 (A) presents the distribution of formal climate smart agriculture adaptation activities across various social categories. It indicates that men and women, within the age group of 25–45, are the highest recipients of this type of adaptation. The graph further indicates that elderly (65+) men and women record the lowest rate of access to agricultural inputs. When discussing access to such inputs and technologies during FGDs, it was clear that access to adaptation is often based on perceived strength and ability to successfully carry about labour-intensive activities, such as the use of treadle pumps for irrigation. This is highlighted within women's access to irrigation as well, which is reported highest within the age category of 25–45, and reduces considerably within older female age groups.

Figure 14 (B) presents the access to formal adaptation by means of distributed humanitarian aid, specifically food aid and social cash transfers. This graph indicates that men aged 45–65 record the highest rate of access to humanitarian aid, and women aged 25–45 have the second highest rate of access to humanitarian aid overall. The only group accessing social cash transfers are women aged 65+, who also report high rates of access to humanitarian aid. As humanitarian aid is intended to support the groups most vulnerable to food insecurity and poverty, and women are overwhelming identified as among the most vulnerable by policies and key actors, it would be expected to observe women reporting higher rates of humanitarian aid. However, the survey data suggests that it is those who could be considered the most abled-bodied and resilient groups, namely men between the ages of 25–65, and women aged 25–45, that are accessing the highest rate of this aid. Localised displacement of numerous participants is likely to have impacted people's access to social cash transfers, as resettlement has resulted in some communities changing traditional authority areas, who are responsible for allocating the social cash transfers.

Figure 14: Access to formal adaptation: (A) agricultural/development inputs, (B) humanitarian aid



At local scale, male, female and mixed FGDs expressed concerns of limited resources within communities, resulting in few households accessing inputs and resources. A common method of coping with this was the practice of the community sharing of inputs, especially food aid. The process, as understood from conversations with actors across scales, takes place as follows; development organisations approach traditional leaders to designate food resources to the most vulnerable, traditional leaders then identify those households, and the food is distributed to them. Once the development organisation moves out, traditional leaders recall the community and

redistribute resources to a wider number of households within the community, spreading the resources more thinly across many households, rather than the concentrated delivery intended by development organisations. This is deemed a negative practice by actors at national and subnational scales, as it harms the most vulnerable. As these food packages are designed to support and sustain one household, once redistributed, the benefit of these packages is greatly reduced. Furthermore, national and subnational actors expressed concerns that those in power, such as chiefs, take large quantities of resources included in the packages for themselves, ensuring they have more than adequate food resources. However, although re-distribution of food packages was observed within the community, this research did not find any evidence during the time spent in villages that traditional leaders were taking large proportions of food aid for themselves or their household. Local level communities view the redistribution of food packages in a different light to that of national and subnational actors. All communities who identified the practice of community food sharing expressed positive feelings towards this practice. This was discussed as a positive action amongst female and mixed FGDs:

“Food aid does come but it is not enough, just very few households receive it and people have been sharing food aid throughout the community to make sure people get at least a small amount”
(F/FG_4)

“Food aid is also an adaptation method. It can greatly assist the community but this support come in small amount. In this village of 98 households, only 20 are supported. So, the community ends up sharing the food because of this, it is done informally because the organisation does not accept the sharing practice. So, sharing is a community arrangement looking at the amount received against the needs of the community” (Mx/FG_3)⁵

Again, the views of youths regarding access to resources is different to other groups. While youth FGDs do acknowledge the limited resources within communities, they did not speak of community sharing practices, and it is likely they are not direct beneficiaries of community sharing due to their positions within households. Their focus was on their limited access to resources within communities. As stated above, this group often felt excluded from community development and CCA activities. The results in Figure

⁵ Not a direct quote from FGDs.

14 indicate that youths are within the group receiving the lowest rates of access to formal adaptation, especially men aged 18–25. One youth FGD stated their needs went continuously unheard by development organisations working within their communities as they were not invited to participate in community discussions, needs assessments or development committees. As a result, the view of youth as a forgotten group is highlighted within access to formal adaptation, reflecting the key challenges that youth FGDs clearly presented during the challenge ranking activities.

7.4.2. *Actions of informal adaptation: ganyu and income generating activities*

As shown in Table 14, the survey data indicates a high reliance on *ganyu* as an informal adaptation practice employed by all community members in the Lower Shire Valley. *Ganyu* is a coping strategy employed by poor households in the face of food insecurity (Bezner-Kerr, 2005). Traditionally, *ganyu* is an activity conducted by men, women and children, but has increasingly become more associated with the female population, particularly FHH (Bryceson, 2006). In the survey data, women participants indicated a higher reliance on the practice, with 84 percent using *ganyu* as a key adaptation strategy, compared to 76 percent of men.

Table 14: Distribution of *ganyu* amongst groups (from survey data)

	<i>Ganyu</i>		<i>Ganyu first</i>		<i>Ganyu only</i>		18 – 25		25 – 45		45 – 65		65+	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
<i>Total female (n.230)</i>	193	84%	193	84%	71	36%	34	87%	88	89%	38	92%	33	63%
<i>Total male (n.122)</i>	93	76%	93	76%	31	25%	12	92%	38	77%	27	77%	16	64%

While the findings from this research show a higher reliance on *ganyu* within the female population, the importance of the practice throughout the whole community across the Lower Shire Valley is undeniable. This is supported by the survey data, which indicates that every respondent who undertook *ganyu* as an adaptation practice, ranked it as the most strategy used. Table 14 shows that higher percentages of women, 84 percent, use *ganyu* as their only coping strategy, compared to 25 percent of men. The

data further suggests that *ganyu* is conducted by younger groups, with a notable decrease in the activity in male and female groups aged 65+. Finally, the survey data shows that male youths, aged 18-25, note the highest rate of *ganyu* practice amongst men. This indicates the limited access and opportunities highlighted throughout the youth FGDs.

The high levels of reliance on *ganyu* was further outlined by four male, four female and three mixed FGDs. Though survey data shows high percentages of youth groups, particularly males, engaging in *ganyu*, it is not noted as a prominent adaptation strategy within youth FGDs. Although there is high reliance on *ganyu*, there are concerns surrounding the availability of this informal labour, confirmed in five FGDs, three male and two female, which expressed these. Amongst these groups, it was felt that due to poor climate and crop yields, wealthier farmers who usually offer *ganyu* had been reluctant to do so. Localised displacement, resulting from floods, also resulted in communities, particularly women, losing access to farms that traditionally offer *ganyu*. As noted by Bryceson (2006) women are often restricted to working close to their home due to cultural and social restrictions, and are therefore unlikely to travel to provide *ganyu*.

On top of *ganyu*, the other key informal activity recorded was the engagement in income-generating activities, including formal employment. The results and distribution of engagement in income-generating activities as an informal adaptation strategy are listed in Table 15. The data shows that men have a higher engagement in income-generative activities, with 12 percent reporting this as a key adaptation strategy. Only nine percent of women report engaging in income-generating activities. The distribution across age groups shows that older male groups report higher rates of engagement in income-generating activities, while there is a considerable reduction in the rate of engagement for women 65+. The findings show that male youths report no engagement in income generating activities, and this highlights the expressed concerns from youth groups about their lack of opportunities, and the call for access to finance to develop businesses.

Table 15: Distribution of informal labour amongst groups (from survey data)

<i>Income-generating activities</i>		18 – 25		25 – 45		45 – 65		65+	
	n %	n %		n %		n %		n %	

<i>Total female (n.230)</i>	21 9%	5 12%	9 9%	5 12%	3 6%
<i>Total male (n.122)</i>	15 12%	0 -	4 8%	5 14%	6 11%

It is clear from the FGDs that there are meaningful differences in the access and choice of men and women to engage in income-generating activities. Women often have fewer options, largely limited to selling crops or baked goods, which is consistent with the socially constructed gender roles of the area. For example, one female FGD elaborated that women in their community were collecting and selling maize barn, the hard outer shell of the grain, at the mill house, and their children were selling cups of water in order to obtain small amounts of income. In contrast, one male FGD discussed the utilisation of environmental change for income generating activities, through the operation of boat taxis to transport people across a river that had changed course after the 2015 flooding. The only engagement in formal employment recorded by surveys was in male participants, though the rate of formal employment remained very low (only two percent of men). From FGDs, there was a noted increase in male migration to surrounding districts to seek formal employment, specifically to Thyolo district, to seek employment at a sugar refinery. The opportunity for travelling for employment is rarely afforded to women, with their travelling and relocation determined by male leaders or family members (Bryceson, 2006; Bezner-Kerr, 2005). The restriction of rural women's movements was highlighted through discussions with a national actor:

"...if it is her making [the] decision it is difficult because [if] she's a widow most culture still affiliates her to the family of her late husband, or if divorced maybe she goes to her home, but if the husband died and she's still at their home, she's affiliated with that family she cannot move out of that place without the blessings of the clan and in doing that they would think she's going to do prostitution, so whatever she does it has to be with them [the husband's clan]" (N/NGO_7)

The results show income generating activities favour men, and women are greatly limited within their opportunities. This is echoed in other research from the area (Smith, et al., 2017), and echoed within literature more broadly (Kellett & Tipple, 2000).

7.4.3. Negative coping mechanisms

An outline of the negative coping mechanisms, as drawn from the survey responses, is presented in Table 16. It shows little variation in mechanisms drawn on by men and women. The findings suggest that when asked specifically about negative or maladaptive coping mechanisms employed, a high percentage of men and women in all age brackets answered “do not know”. This is possibly due to the sensitivity of the topic of such issue. However, it is also plausible that these high-risk practices are often employed as coping strategies during periods of hardship, and as a result, are considered normal, rather than maladaptive. The key negative coping practices recorded from survey data, as outlined in Table 16, include changing eating habits, negative cultivation, deforestation, selling assets, engaging in transactional sex and illegal activities.

Table 16: Distribution of negative coping mechanisms amongst groups (from survey data)

	<i>Do not know</i>		<i>Changing eating habits</i>		<i>Negative cultivation</i>		<i>Deforestation</i>		<i>Selling assets</i>		<i>Transactional sex</i>		<i>Illegal activity</i>	
Total female (n.70 32%)														
18 – 25	n.16	41%	n.9	23%	-	-	-	-	n.3	8%	-	-	-	-
25 – 45	n.45	45%	n.18	18%	-	-	n.4	4%	n.2	2%	-	-	n.3	3%
45 – 65	n.19	46%	n.9	22%	-	-	-	-	n.2	5%	-	-	n.2	5%
65+	n.21	40%	n.21	25%	n.1	2%	n.2	4%	-	-	n.1	2%	n.1	2%
Total male (n.40 32%)														
18 – 25	n.7	54%	n.3	23%	-	-	-	-	-	-	-	-	-	-
25 – 45	n.17	35%	n.14	29%	-	-	-	-	n.2	4%	-	-	-	-
45 – 65	n.21	60%	n.7	20%	-	-	n.1	3%	n.3	9%	n.1	2%	n.2	6%
65+	n.9	36%	n.4	16%	n.1	4%	n.1	4%	n.1	4%	-	-	n.1	4%

Data presented in Table 16 suggests that the highest reported negative coping mechanism is a change in eating habits. All age groups report some changes in regular eating habits. From FGDs, it was determined that the most frequent change to eating habits was the increased consumption of non-traditional food sources, largely the consumption of the water-lily rhizome, *nyika*. The use of this food source was discussed within four FGDs (two male, one female, one mixed). Historically, *nyika* has been used as a food source in the Lower Shire Valley during times of food shortage. However, both communities, and subnational actors, noted a heightened use of the rhizome in 2016, to the extent that it had market value, and was readily on sale in local markets during fieldwork in 2016. One female FGD outlined the increasing market value of *nyika* as it became of increased importance in the day-to-day diet. Contributing to the market value was the availability and accessibility of the rhizome, and one male FGD outlined that within their locality, the rhizome was becoming increasingly difficult to harvest, with stocks close to riverbanks and within shallow water considerably reduced. The rhizome is harvested by entering bodies of water where water lilies are present and extracting the rhizome from the root area in the waterbed. Both male and female participants in the FGDs participated in the harvesting and consumption of *nyika*.

Within FGDs, men claimed responsibility for the harvesting of the rhizome, though this was refuted by women within the female and mixed FGDs. National actors discussed the danger surrounding the consumption and selling of *nyika*. Firstly, there are health-related issues when *nyika* is consumed, particularly digestive problems. Secondly, there is a concern of increased animal-human conflict, as *nyika* is a food source for wildlife, such as fish and large mammals including hippos. Thirdly, specifically noting women's involvement in the harvesting, there were concern for the safety of women and children, as women are often unable to swim and carry their children while harvesting the *nyika*. Within FGDs, the only danger that was identified as a result of the consumption of *nyika* was the potential for animal-human conflict:

"Some people in the community rely on Nyika and its harvesting is very dangerous, some people have been attacked by crocodiles, especially now because of increase demand, people are entering more dangerous areas" (M/FG_5)⁶

Other negative coping practices illuminated from the data, and highlighted through community dialogue in FGDs, were the increased theft of crops, livestock, and other household assets. Survey data confirms this increased concern, with most social groups expressing that stealing was a negative coping strategy used within their village. One female FGD, drawn from a community which had recently resettled, stated that they felt under threat from their host community, and noted an increase in theft of their items. Often, communities who have resettled receive new inputs, such as household utensils, which have not been distributed to host communities; this may resulted in jealousy from the host community and lead to an increased level of theft.

Although the data presented in Table 16 does not present significant differences between the negative coping mechanisms employed by men and women, through observations and community dialogues in FGDs it is that clear gendered negative practices emerged. Firstly, as noted in Chapter Six, national and subnational actors discussed an observed increase in the incidence of women engaging in transactional sex as a coping mechanism to the heightened food insecurity in the area after the consecutive disasters.⁷

⁶ Not a direct quote from FGDs.

⁷ There was no noted connection been increase in transactional sex and an influx in development workers. However, this question was not specifically asked or probed for.

Women who engaged in transactional sex normally did so in exchange for food or small sums of money. The use of transactional sex as a coping mechanism did not emerge from survey data (Table 16). However, the theme of increasing transactional sex practices within the Lower Shire Valley did emerge through FGDs, in one male and two youth groups. Within discussions with male FGD participants, it was clear that communities were observing an increase in the practice:

“There are challenges like the transmission of diseases because some [women] may be involved in negative adaptation practices like prostitution as a way of trying to earn a living” (M/FG_5)

“girls are getting involved in improper practices such as prostitution due to increased levels of poverty” (Y/FG_2)⁸

Research conducted by Bryceson (2006) indicates that during previous periods of food shortages, such as the 2001/02 famine, transactional sex became incorporated into *ganyu* contracts because of deepening household impoverishment, and women’s desire to provide for their children. Women in these circumstances felt that transactional sex was essential to obtain basic needs, such as food (Bryceson, 2006). However, within FGDs conducted as part of this research, women did not raise the issue of transactional sex. This is most likely due to the highly sensitive nature of the practice, and the potential for associated stigma.

The second critical gendered coping mechanism noted in this research is the increase in early marriages of young women and girls.⁹ This finding was specifically noted within youth FGDs, where it was outlined as a coping strategy by three groups, often in combination with school dropout. The issue of early marriages was also raised by one mixed FGD, but was not discussed as a coping mechanism by male and female groups. National and subnational actors also noted an increase in girls’ engagement in early marriages and attributed this directly as a coping mechanism to climate change and disasters:

“Yeah [early marriages have] increased, why? Because soon after the flooding people were displaced, children – girls – lost their

⁸ Not a direct quote from FGDs.

⁹ Results from data collect in 2016. Malawi constitution was amended in April 2017 to raise the age of marriage from 15 (with parental consent) to 18 for boys and girls.

parents, so they had no one to look after them, so the only way out was to get married early. Even if [their] parents were there, they've lost everything they owned, so it's like shedding off some of the children, so it's less responsibility. Yeah, it has been a big problem... And poverty too, because after the floods, you know poverty just soared and contributed immensely [to early marriage]" (L/TA_2)

The findings suggest that negative coping mechanisms are widely employed throughout the community. However, the results suggest that women engage in higher-risk activities as compared to their male counterparts. This would indicate that even though gender parity has been reached in access to formal adaptation, women maintain a lower adaptive capacity compared to men. This is also due to the limited opportunities for informal adaptation strategies, such as engaging in business and employment, compounded by the social and cultural structures which women conform to, including greater responsibilities to support their family and household. This further inhibits women's potential to adopt informal adaptation strategies. The following two sections explore household lineage and household structure as means of accessing adaptation practices.

7.4.4. Lineage and access to adaptation

Household status is a key social categorisation explored within the intersectional lens drawn upon during analysis. Using survey data, the impact lineage (matrilineal, patrilineal, customary, or unknown land status) has on access to adaptation is explored within this section. Land lineage is often tied up with the transfer of land, with patrilineal households inheriting land from fathers, matrilineal households inheriting land from mothers, and customary, which was determined as land held by traditional leaders which could be shared out at their discretion. Using data from the surveys conducted, Table 17 presents the distribution of formal adaptation, humanitarian aid, *ganyu*, incoming generating activities and negative coping mechanisms amongst men and women within different household lineage status. The table presents the total number of people recording the various adaptation strategies per lineage and the equivalent percentage of the total lineage group. The data indicates customary is the most commonly recorded lineage within the Lower Shire Valley (32%). Twenty percent (n.72) recorded their

household as patrilineal, with eleven percent stated theirs as matrilineal. The second highest status recorded was an unknown lineage (24 percent), perhaps as a result of household members being unaware of their lineage. Eight percent recorded their lineage as 'other', this consisted of those displaced or resettled and those who had privately bought land. A large portion (63%) of those who recorded their lineage as 'other' had recently resettled, or remained displaced. They cited land exchange, land provided by government or being resettled in response to specific questions on lineage. The remaining ten (37%) stated their land was bought and privately owned.

Table 17: Lineage and CCA activities (from survey data)

	<i>Patrilineal</i>		<i>Matrilineal</i>		<i>Customary</i>		<i>Unknown</i>		<i>Resettled</i>		<i>Bought</i>	
Total	72		39		113		86		17		10	
<i>ganyu</i>	54	75%	33	85%	87	77%	77	90%	13	76%	9	90%
<i>ganyu only</i>	27	38%	13	33%	25	22%	29	34%	6	35%	1	10%
<i>formal adaptation</i>	17	24%	11	28%	45	40%	15	17%	8	47%	2	20%
<i>humanitarian aid</i>	10	14%	15	38%	7	6%	36	42%	3	18%	0	-
<i>informal adaptation</i>	13	18%	2	5%	9	8%	3	3%	4	24%	7	70%
<i>Negative coping strategies</i>	19	26%	6	15%	43	38%	29	34%	1	6%	0	-

The data identifies clearly that those who report unknown lineage and those who have bought land privately as having the highest dependency on *ganyu* (90%), while patrilineal households have the lowest dependency (75%). Interestingly, these patrilineal households report the highest dependency on *ganyu* as their only adaptation mechanism (38%). Matrilineal households also report a high dependency on *ganyu* (85%), but they appear to have a more diverse range of coping strategies, as compared to patrilineal households. A smaller percentage of these households (34%) of depend on *ganyu* alone. Those who report their family or household lineage as customary report the second lowest dependency on *ganyu* (77%), and the lowest accounts of *ganyu* as their only adaptation strategy (22%). The findings on *ganyu* within this lineage-disaggregated analysis further reinforces the overall largescale dependency on *ganyu* across all groups, sexes, ages, and household structures.

During data collection, those who bought land and those displaced or recently resettled, were treated as one group, recorded as 'other' in surveys. An interesting finding from the survey data is that members of the 'other' category received the second highest percentage of formal adaptation (37%), as well as conducting the highest recorded informal adaptation actions (41%), which were typically recorded as income generating activities. The survey data also indicated that the 'other' group was also the group most likely to access humanitarian aid. This rate of humanitarian aid is expected, considering the vulnerability of displaced communities. The high rates of practicing formal CCA activities is likely to the receipt of building materials for those being resettled, as well as agricultural inputs for those who have bought land.

However, despite receiving the highest levels of humanitarian aid, as well as being one of the groups most likely to report accessing formal CCA, FGDs conducted with the 'other' group revealed that the process of displacement and resettlement resulted in these groups feeling forgotten within development structures. This is largely linked to the role of traditional leaders in distributing inputs. Those displaced reported that by entering another chiefs' jurisdiction, they were not on the register to receive inputs in the new location, and were therefore required to return to their previous jurisdiction to access formal CCA distribution. The highest rate of informal adaptation, by means of income generating activities, is further contradictory to the findings from displaced communities' views in FGD. These communities' felt there were limited options for them to conduct income generating activities and had a higher reliance on negative coping mechanism such as deforestation. However, this does not appear to be the case when consulting the survey data, which indicates a low reliance on negative coping strategies.

By looking at these groups separately, the results still suggest that those who are recently displaced or resettled are still the second largest group practicing formal CCA. Contradictorily, the survey data indicates that the displaced and resettled group drops to become the group to receive the third highest level of humanitarian aid. This could highlight the justification for feeling forgotten within the development and CCA processes, as highlighted in the FGDs.

Survey data for those who have bought land indicate that these members of the community are the most likely to engage in informal coping mechanisms, such as small

businesses, indicating access to disposable income which could be invested in business or property.

Upon examining access to formal adaptation between lineages, it is observed that those listing their lineage as customary are second only to those in the resettled or displaced group in the level of access to formal adaptation. Both matrilineal and patrilineal households are observed to receive a similar percentage of formal adaptation, with matrilineal being accessing a slightly higher percentage (28% and 24% respectively). Matrilineal households record the second highest level of access to humanitarian aid (38%), while patrilineal households' access to humanitarian aid (14%) is greatly reduced. This finding is interesting as humanitarian aid is targeted towards the ultra-poor and those most vulnerable, and the higher percentage of distribution of humanitarian aid to matrilineal households presents a further example of international and national actors' perception of women as vulnerable, particularly female headed households.

A final point to explore within examination of the lineage systems and access to adaptation is the notable difference between patrilineal and matrilineal households in access to and participation in informal adaptation. Patrilineal households have a much greater involvement (18%) in such activities, as compared to matrilineal households (5%). This further indicates the difficulties and barriers which women face within accessing support and opportunities to create income generating activities.

7.4.5. The female-headed household and adaptation

Female headed households (FHH) are described by development organisations, donors and literature as a particularly vulnerable group (Chant, 1997). van Aelset and Holvoet's (2016) research shows a woman's access to adaptation is more dependent on her marital status than it is for a man. Therefore, it is important to analyse how marital and household status impact access to adaptation in the Lower Shire Valley. As such, survey data has been used to examine the FHH respondents to understand their access to formal and informal adaptation, as compared to women within a male-headed household (MHH).

Survey data indicates (Table 18) that 47 percent of the total female participants identified as a FHH, including 23 who were married. For this analysis, married FHHs are excluded, and as a result, 37 percent of all female participants are considered FHH, and the primary decision maker. The age distribution and status of FHH are also outlined in Table 18, which shows the highest proportion of FHH are widows from age groups 45-65 and 65+. Only two participants report never being married, they are within the youth (18-25) group, aged 20 and 21, one with children and one without.

Table 18: Demographics of female-headed households (from survey data)

FHH	109	86 (FHH)	18-25	25-45	45-65	65+
▪ Married	22	(excluded)	-	-	-	-
▪ Polyamorous marriage	1	(excluded)	-	-	-	-
▪ Widowed	71	71	1	13	22	35
▪ Separated/Divorced	13	13	1	8	1	3
▪ Never Married	2	2	2			

In Table 19, the number and percentage of FHH and women within MHH and the adaptation-type practiced is presented. The results show the women living in MHH have greater access to formal adaptation (32%) and income generating activities (16%), as compared to women in FHH, reporting 23 percent and 7 percent access respectively. Interestingly, women in MHH, also report a higher engagement in negative coping mechanisms such as changing eating habits, selling assets, deforestation and engaging in illegal activities. Women in MHH also report greater participation in *ganyu* (87%, compared to 80% in FHH), although there is little variation in the percentages reporting *ganyu* as the only adaptation activity used. These findings suggest that, although women in MHH have greater access to resources, their adaptive capacity remains low, highlighting women's limited power and decision-making control over the use of resources at household level. While FHH may have less access to resources, they may be better able to utilise what is available to reduce the necessity of negative coping mechanisms.

Table 19: Comparison of adaptation between women in female-headed households to women in male-headed households (from survey data)

	Formal adp: agriculture		Formal adp: humanitarian		Ganyu		Only ganyu		Income gen. activities		Negative coping mechanism	
	n.	%	n.	%	n.	%	n.	%	n.	%	n.	%
Women in FHH (n86)	20	23%	31	36%	69	80%	25	29%	6	7%	14	16%
Women in MHH (n115)	37	32%	20	17%	100	87%	35	30%	18	16%	35	30%

As women in MHH report higher access to formal adaptation, largely through provision of climate smart agricultural inputs, this should provide women in MHH a greater opportunity to produce higher yields, as compared to women in FHH. However, due to the poor weather conditions, the results show similar quantities of women reporting no harvest in 2016 across both household types (FHH: 77%; women in MHH: 76%). As a comparison, men reported lower rates of no harvest (62%). At the time of data collection, all women were able to determine their yield, whereas eight percent of men reported not knowing their crop yield, as they had not completed their harvest. The reduced access of FHH to formal agricultural CCA support is reflected within crop yield averages. Survey data indicates that FHH produced the smallest average crop yield (4.45 bags of maize), less than women in MHH (6 bags of maize) and men (9 bags of maize).

The survey data reflected in Table 19 indicates that FHH received greater support by means of humanitarian aid (36%) as compared to women in MHH (17%), probably as a result of the deficit in crop yields. FGDs revealed the widespread use of community sharing of humanitarian resources, especially food aid. However, the sharing of other resources, such as agricultural inputs, was not noted in FGDs. While FGDs indicated that community sharing of food aid is deemed a positive action at local scale, it is likely that the practice is contributing to the already reduced access to food of FHH, compounding their climate vulnerability. Survey data supports this, indicating that FHHs were already harvesting the lowest yields, and are likely to have their humanitarian aid redistributed across the community, without accessing shared agricultural inputs.

7.4.6. The gendered view of resettlement as an adaptation strategy

As the Lower Shire Valley was badly hit by widespread flooding in 2015, displacement and temporary relocation was commonplace within communities who participated in this research. As a result, government agencies such as the Department of Disaster Management Affairs, the Malawi Red Cross Society and the IOM had, at the time of data collection in 2016, started the process of resettling villages from lowland to upland areas, and localised migration was introduced as an adaptation strategy. At the time of data collection, the resettlement process had begun, but limited progress had been made. There were financial and project support limitations noted by key actors involved, and issues such as land availability and rights were problematic for the resettlement administration. In the Lower Shire Valley, lowland, flood-prone areas have the most nutrient-rich soil and moisture residue, which aid winter-cropping. Upland soil, on the other hand, is of poorer quality and crop yields are reduced. It is therefore undesirable to move away from a critical source of livelihood. On top of this, Malawi is densely populated, with small landholding sizes; this makes the redistribution of land difficult. Finally, the customary nature of land ownership requires traditional leaders to grant permission for land use. This process can threaten the leadership and power of displaced traditional leaders, therefore, localised migration can be an arduous process, often involving negotiations between district councils, communities and traditional leaders.

The communities who have resettled, or locally migrated, experienced the worst of the 2015 floods with the loss of family members, homes, livelihoods, and livestock. A high percentage (70%) of participants in this research were relocated to temporary camps, new villages or, were, at the time of fieldwork, in negotiations to relocate. Male, female and mixed FGDs felt that resettlement had positively impacted their lives by removing the immediate threat of flooding. In total, 11 FGDs had been directly affected by displacement and had, at least, undergone temporary resettlement. These groups consisted of five female, three male, two mixed and one youth FGD. Figure 15 presents a visual overview of the perceptions of resettlement from these groups. Overall, there were varied views surrounding resettlement. Most groups felt resettlement was positive or mixed; a view of resettlement as positive but not without its own challenges. Only one FGD (F/FG_4) viewed resettlement as negative, indicating that resettlement had been the cause of all

challenges, and has resulted in their lack of access to social services, housing and development assistance:

“we moved to this location on the promise that we would be assisted but there are no amenities here, and we have not been helped. Resettlement has made our problems worse” (F/FG_4)¹⁰

All FGD (four groups) who identified resettlement as a positive adaptation strategy did so because they felt safer and protected from future flooding within their new location. The most frequent (six groups) view within FGDs was a mixed perception of resettlement, due to some challenges faced since resettling. The first challenge was noted as the lack of access to services, such as the proximity to schools and marketplaces. Secondly, there was concern surrounding lack of land or the distance required to travel for farming. These communities were still returning to farm in the lowlands, and in one female FGD, the distance travelled to farms was estimated to be 15 kilometres, to be travelled by foot. Two FGDs (one mixed, one male) which had a mixed view on resettlement had been unsuccessful in permanently resettling due to their limited financial capacity to buy land and rebuild. They also expressed disappointment in the lack of support from government and development agencies in their attempts to do so. One female and one youth FGD discussed concerns of safety and feeling unwelcome in new areas and noted an increase of theft, driven by their host communities.

¹⁰ Not a direct quote from FGDs.

Figure 15: Perspectives of resettlement identified in FGDs

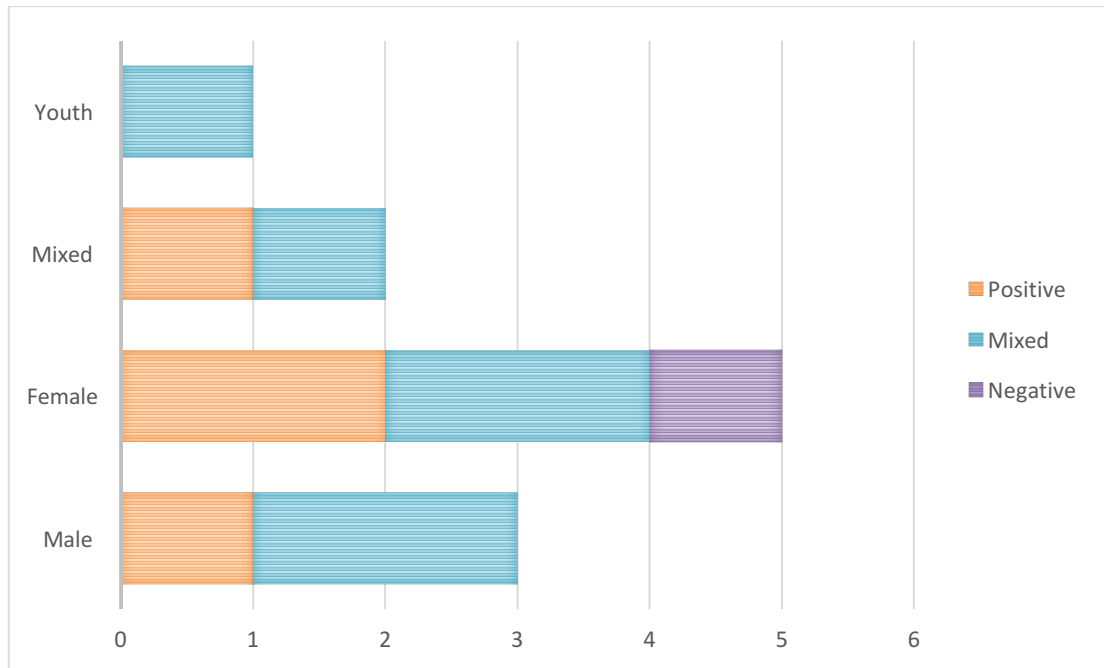


Figure 15 indicates that, overall, communities who have experienced displacement because of floods viewed resettlement as a largely positive, though an imperfect, adaptation strategy. When those with mixed views who had been resettled (four groups) were asked whether they would return to flood-prone areas, none indicated that they would. However, they expressed the need for assistance and the provision of social services, such as accessibility to water points, schools and medical centres, to be provided to the area where they had been resettled.

The complexity of resettlement in the Lower Shire Valley has been compounded by the role of traditional leaders and customary land. Through discussions with key actors at subnational level, it was clear the issues of chieftaincy and cultural connection to land were the critical issues driving uncertainty of resettlement as a successful CCA activity. Numerous subnational actors discussed issues arising from conflicts with and between traditional leaders surrounding moving location, which prevented them for progressing the resettlement process:

“...[if] you are resettling a whole village... the chief who will be resettled will lose his chieftaincy, this results in people not [being] willing to move...I don’t know how, how can we break this mentality” (L/GOV_1)

“The biggest conflict is chieftaincy because when people are resettling they find an existing chief there and he is not allowing the new chief to practice his leadership. People are always going to want to maintain their power as a chief, they don’t want to lose their chieftaincy...” (L/GOV_4)

“It is like what we’re seeing in the refugee crisis in Europe at the moment, whatever status you had when you go to this new place, obviously, it is gone...so that’s why many people [in the Lower Shire Valley] resist moving because they know once they [move] community, [if] you are a chief, you [cannot] continue. As a result, they feel if I go there I’m not going to be a chief, so...resistance comes” (L/TA_2)

These quotes show the complications which chieftaincy and power over an area of customary land has over the resettlement process in the Lower Shire Valley. Traditional leaders have resisted resettlement and discouraged community members from moving due to fear of losing their power. The issue of chieftaincy and resettlement clearly highlights the powerful role traditional leaders and chiefs play in rural communities in Malawi. During data collection, eight of 11 FGDs had been resettled successfully. It was clear that some communities remained in flood prone areas or prolonged their stays in emergency camps due to the traditional leaders’ fear of losing power. In one case, while conducting a female FGD in a newly resettled community, the women discussed resettlement as a positive adaptation action and how they were content in their new location, with no desire to move back to their old flood-prone home. Mid-way through the FGD, their traditional leader arrived and joined the group. He spoke of the community’s intention to return to their old, flood-prone, village as soon as possible, and stated that some households had already returned. Upon this statement, the women participating reaffirmed the chief’s views about relocating to their previous homes, contradicting the views they expressed earlier, which indicated their contentment within their newly resettled homes. This highlights the power imbalance of powerful men and women within traditional communities in the Lower Shire Valley, which leaves women with little agency to make decisions on their safety and adaptation strategies.

7.4.7. *Gender mainstreaming in CCA and empowerment*

The research draws on two well-established empowerment frameworks, outlined in Chapter Two. These are Kabeer's (1999) resource-agency-achievement framework and the Women's Empowerment in Agriculture Index (Alkire, et al., 2012). These are used to analyse domains of empowerment that contribute to men and women's experience of climate change, and their ability to access adaptation and become resilient. The following section analyses findings based on the self-determined views of participants in the Lower Shire Valley, collected through surveys, on issues such as household decision-making and community participation (Table 20) and time spent on the engagement in key household and agricultural activities (Table 22).

Table 20: Disaggregated decision-making and community participation

	Decision-making						Community Participation					
	Agricultural decisions		HH daily expenses		Community decision-making		Member of group		Leader in group		Influence community decisions	
	n	%	n	%	n	%	n	%	n	%	n	%
M 18 - 25 (13)	n.7	54%	n.12	92%	n.1	8%	n.4	31%	n.1	8%	1	8%
M 25 - 45 (49)	n.34	69%	n.39	80%	n.34	69%	n.24	49%	n.7	14%	34	69%
M 45 - 65 (35)	n.24	69%	n.28	80%	n.20	57%	n.10	29%	n.3	9%	20	57%
M 65+ (25)	n.12	48%	n.12	48%	n.17	68%	n.13	52%	n.3	12%	17	68%
W 18 - 25 (39)	n.6	15%	n.6	15%	n.2	5%	n.7	18%	-	-	2	5%
W 25 - 45 (98)	n.35	36%	n.39	40%	n.51	52%	n.29	30%	n.2	2%	51	52%
W 45 - 65 (41)	n.25	61%	n.22	54%	n.20	49%	n.12	29%	n.1	2%	20	49%
W 65+ (52)	n.35	67%	n.33	63%	35	67%	n.8	15%	n.2	4%	35	67%

Table 20 presents a brief synthesis of the levels of engagement of different groups in decision-making at the household, agriculture and community levels. It also identifies participants' engagement in community groups and committees. The findings show that women of all ages report a lower engagement in decision-making in agriculture and household daily expenses, as compared to all male groups, excluding males aged 65+. Men, between the ages of 25–65, present themselves as key decision makers within the household and agriculture activities, with 69 percent presenting themselves as the key decision maker within the family unit. Young women (18–25) report the lowest engagement in these household and agriculture decision-making activities. Furthermore, it is found that young men and women have the lowest engagement in community decision-making. The findings show that all other age groups, both male and female, have

considerably higher engagement in community decision-making. Survey data, reflected in Table 20, also shows that only less than 10 percent of youths (5% female youths, 8% male youths) feel they have an influence in community action processes, and shows that all other age groups have a considerably higher self-determined influence on community action processes. This reaffirms the findings from youth FGDs, which suggest youth isolation within CCA, and development actions more broadly, within the Lower Shire Valley.

Data drawn from the surveys also present the gender and age distribution of participants who are members of CCA community groups. This is reflected in Table 20. The findings show that there is representation of men and women of all age groups in these community groups. However, there are some gendered differences noted. There is a comparatively lower representation of female age groups (excluding the group 45–65), with women 65+ having the lowest representation amongst all groups. Young women (18–25), also, report a relatively lower rate of engagement in CCA groups. The best insight into the procedural justice in CCA activities at community level is from data figures where women hold leadership positions within these groups and committees. Women of all ages report a much lower participation in leadership roles compared to men. Women, aged 65+, have the highest engagement in leadership roles, while young women (18–25) have the lowest leadership representation, with none of the participants reporting holding a leadership position in community CCA groups. In Chapter Six, this thesis highlights the numerous reasons why national and subnational stakeholders believe leadership roles are difficult for women to assume. A common suggestion by key actors interviewed was that women failed to assume leadership positions as a result of the lower literacy rate and education levels of women and girls in the area. A 2017 report from the Government of Malawi find that women have a 15 percent lower literacy rate than men (Government of Malawi, 2017b). The educational analysis from survey data is presented in Table 21, and explores the connection between empowerment, education and participation in CCA groups and committees.

Table 21: Disaggregated education levels

Education	Male (n122)				Female (n230)			
Age Bracket	18 – 25	25 – 45	45 – 65	65+	18 – 25	25 – 45	45 – 65	65+
<i>Average years in school</i>	8	7	5	3	5	4	5	2
<i>% with no schooling</i>	0%	14%	43%	28%	23%	54%	70%	76%

The survey results, as indicated in Table 21, demonstrates that men of the Lower Shire Valley have a higher average level of education, with young men (18-25) reporting the highest level of education (eight years), and women aged 65+ report the lowest level of education (two years). The findings also show that women report much higher rates of having no years of education, ranging between 23 percent of young women to 76 percent of women aged 65+. Although suggestions from national and subnational level actors that women were less educated than men is reflected in the survey data. However, the age group amongst females with the lowest education (aged 65+) is also the group which reports the highest levels of leadership positions amongst women. This suggests that, rather than education, the grounds for leadership selection, are more likely to be based on status within the community, respect for age and, potentially, linkages to traditional leaders.

Table 22: Disaggregated time use

Household time use									Agricultural time use					
			Collecting		Caring		Cooking		Planting		Harvesting		Market	
M 18-25 (13)	you	-	-	3	23%	-	-		1	8%	1	8%	4	31%
	partner	12	92%	6	46%	12	92%		-	-	-	-	3	23%
	family	-	-	3	23%	-	-		12	92%	12	92%	2	15%
M 25-45 (49)	you	1	2%	3	6%	-	-		5	10%	3	6%	14	29%
	partner	43	88%	26	53%	44	90%		2	4%	2	4%	8	16%
	family	-	-	18	37%	1	2%		40	82%	41	84%	6	12%
M 45-65 (35)	you	2	6%	10	29%	2	6%		1	3%	3	9%	8	23%
	partner	22	63%	12	34%	24	69%		2	6%	1	3%	3	9%
	family	1	3%	10	29%	1	3%		31	89%	31	89%	4	11%
M 65+ (25)	you	2	8%	5	20%	2	8%		2	8%	2	8%	5	20%
	partner	15	60%	10	40%	17	68%		2	8%	2	8%	2	8%
	family	-	-	4	16%	-	-		15	60%	15	60%	3	12%
F 18-25 (39)	you	36	92%	26	67%	36	92%		4	10%	3	8%	-	-
	partner	-	-	3	8%	-	-		4	10%	4	10%	-	-
	family	-	-	7	18%	-	-		27	69%	28	72%	-	-
F 25-45 (98)	you	69	70%	65	66%	81	83%		20	20%	18	18%	10	10%
	partner	2	2%	16	16%	2	2%		2	2%	2	2%	-	-
	family	1	1%	7	7%	3	3%		75	77%	79	81%	1	1%
F 45-65 (41)	you	22	54%	27	66%	29	71%		11	27%	13	32%	4	10%
	partner	1	2%	4	10%	1	2%		2	5%	3	7%	-	-
	family	2	5%	5	12%	1	2%		26	63%	22	54%	1	2%
F 65+ (52)	you	20	38%	23	44%	20	38%		14	27%	11	21%	5	10%
	partner	-	-	2	4%	-	-		-	-	1	2%	-	-
	family	-	-	5	10%	1	2%		20	38%	21	40%	-	-

During surveys, participants were asked to determine who conducted the majority of various household and agricultural activities. The responses are presented in Table 22. The findings show that both male and female survey participants determined that women overwhelmingly conducted the household activities of collecting water and firewood, cooking, and caring for family and the household. In terms of agricultural labour, there is a less distinguishable gender trend of time spent conducting agricultural activities, but women do self-determine that they conduct more agricultural activities. While there were limited agricultural activities being conducted during data collection, as harvest had largely taken place, it was acknowledged by national and subnational actors that women are often the main agricultural labourers within the Lower Shire Valley. A Government of Malawi report suggests that women comprise up to 70 percent of the agriculture work force (Government of Malawi, 2012b). It is, therefore, likely that the women's engagement in agriculture is considerably higher than the figures presented here. It is notable that female participants record a much lower rate in reporting attendance at marketplaces to sell crops. This is a fundamental domain within WEAI empowerment analysis (Alkire, et al., 2012).

7.5. Conclusion

This chapter has presented empirical data that answers two of the key research questions; RQ3: Are there differentiated experiences of climate change (based on gender, age and other social identifiers) in the Lower Shire Valley? and RQ4: How do different groups (based on gender, age and other social identifiers) in the Lower Shire Valley access CCA resources?

The findings from local scale analysis indicate that policy supported gender mainstreaming taking place within communities in the Lower Shire Valley is limited, and restricted to applying a gender balance in activities. This reiterates the findings from Chapter Six. The results show that men and women report parity in access to CCA within the locations of research. Women report slightly higher participation in formal adaptation measures, particularly climate smart agriculture practices. However, the benefit of accessing CCA for women is limited, as results show they are involved in greater

engagement in negative coping mechanisms, such as changing eating habits. There was also a noted increase in transactional sex and early marriages as a coping mechanism employed by women; this was found in numerous communities in the Lower Shire Valley, indicating that women are experiencing heightened challenges because of climate change and disasters. These issues remain unaddressed within communities, CCA actions and policies.

Although women are more likely to adopt negative and high-risk coping strategies, neither women nor their communities identify the adoption of these coping strategies a result of their climate vulnerability. The findings also support that local scale views on vulnerability differ from those held at the national and subnational scale. Communities most commonly identify the elderly and disabled people as the groups most vulnerable to climate change and its impacts. Although numerous actors at national and subnational scale expressed similar views, it is overwhelmingly women who are determined to be the most vulnerable group at the national and subnational scales; this is reflected in national policies.

Large proportions of participants at local scale, as reflected in their responses in surveys and FGDs, stated that vulnerability was experienced equally throughout communities, and failed to identify the intersection of social identifiers contributing to vulnerability. This is particularly reflected in views of and from displaced communities. The trauma of the 2015 floods and the aftermath of losing family members, livelihoods and assets has, without question, increased a community-wide vulnerability and the perception of an all-of-community vulnerability. With communities rebuilding after the floods, it remains difficult for them to determine who should be considered more vulnerable.

In addition, the findings from the local level present a deviation in the experience and perception of youth groups, as compared to older members of the community. Youth groups' access to CCA also deviates greatly compared to the overall views and needs of communities within the Lower Shire Valley.

Through FGDs, it was identified that communities share food inputs, received as part of humanitarian aid from development organisations. The sharing of these food resources was, without exception, viewed as a positive community activity. Households

were happy have inputs redistributed, in order to ensure all members of the community benefitted from these inputs. However, formal CCA inputs, such as agricultural supports, were not redistributed amongst the community. Data from this research indicates that the humanitarian aid was targeted at those households which national policy determined to be vulnerable, particularly FHH and the elderly. In the aftermath of successive disasters, there was a noted decrease in community cooperation, particularly in the provision of assistance of farm labour to the elderly, who the community perceived as the most vulnerable to climate change and its impacts. As such, the continuation of community redistribution of humanitarian food inputs, combined with the disregard of traditional community cooperation for the benefit of the elderly, has the potential to compound both perceived and actual vulnerabilities to climate change. These activities demonstrate the importance of power relations within communities in the Lower Shire Valley.

The power held by traditional leaders in the distribution of inputs and resources, and within decision-making in communities, is another key issue raised by this research. This is particularly felt around issues of resettlement. Generally, displaced communities who have resettled in new areas view resettlement as a positive adaptation strategy. However, issues around chieftaincy and loss of power when moving to new customary land has resulted in displaced chiefs determining that communities should return to disaster-prone areas, disregarding the views of their community members. This presents critical intersectional concerns surrounding those marginalised within communities, who have a limited voice in decision-making. It particularly effects FHH, who do not have the agency to decide to move to a safer location on their own as a result of social and cultural norms.

The analysis of local scale data indicates that there are clear gender differentiated vulnerabilities to climate change, the impact of climate change and in methods of coping. The findings suggest that the input of gender considerations in policy in Malawi, to date, has done little to address these critical issues. However, these gender considerations have visibly impacted the gender balance of CCA activities in the Lower Shire Valley. In the next chapter, the findings from all results chapters will be explored further, linking to issues of justice and related areas of theory.

8. Discussion

8.1. Introduction

This chapter presents the key themes that emerged in the empirical results chapters for a closer interrogation. Specifically, this chapter reflects on some key findings through the lens of climate justice, specifically procedural and distributive justice. The chapter explores key findings that have implications on our understanding on gender, CCA and procedural justice. Secondly, the chapter explores the findings of the redistribution activities of local communities as coping mechanisms to climate change, and discusses the results' contribution to the understanding of distributive justice. Thirdly, the chapter explores the value of using an intersectional lens to conduct CCA and gender research. Finally, the chapter explores the contributions to knowledge on the current gender mainstreaming practices in CCA across scales in Malawi. In doing so, this chapter highlights the novel findings and contributions to knowledge of this thesis.

8.2. Procedural justice and gender across scales

A consistent point in climate justice literature, and a focused point of reflection of this research, surrounds procedural justice within the climate change space. Procedural justice, in the context of climate change has, for a large part, focused on the inclusion, participation and distribution of power in the process of climate change action (Bulkeley, et al., 2013; Paavola & Adger, 2006). Specifically, within CCA, procedural justice explores; how adaptive responses are made, and who the decision-makers are within these adaptive responses. The findings presented throughout the empirical chapters of this research has presented insights which further the knowledge on procedural justice within the context of gender and CCA across scales.

Within academia, research has highlighted women's underrepresentation within climate change decision-making structures at all levels (Jerneck, 2018a; Alston, 2013; Denton, 2002). Furthermore, there is a body of research which highlights the male-dominated and patriarchal approach to action on climate change, which has led to the

view of climate change as a scientific problem in need of a technical solution (Buck, et al., 2014; MacGregor, 2010; Alaimo, 2009; Boyd, 2002). These research outputs highlight discussions surrounding procedural gender injustices in relation to climate change and its impacts.

The policy review in this research presented that the UNFCCC has made efforts to amend the limited representation of women within UNFCCC committees and bodies. As such, there have been several decisions made under the UNFCCC (notably, Decisions 36/CP.7 and 23/CP.18) to create gender parity in committees and groups. Despite this, women remain underrepresented in all groups. In addition to the limited improvement in representation of women in UNFCCC proceedings, key findings from the gender policy analysis, presented in Chapter Five, highlight the areas of international climate change policies which fail to efficiently create actionable and meaningful gender considerations, which would result in full gender mainstreaming, and progress towards gender equality. A key finding of this research is the inconsistencies between broad policy objectives and actionable outcomes.

When looking at the international policy landscape, it is understood that the ultimate goal of gender mainstreaming is “to achieve gender equality” (United Nations, 1997, p. 2). Outlined in the Paris Agreement is the acknowledgement that Parties should, “when taking action to address climate change ... consider ... gender equality, empowerment of women and intergenerational equity” (UNFCCC, 2015b, p. 2). This broad statement of equality created the view of the Paris Agreement as a people-centred policy, however, the terminology of ‘consider’ can be viewed as a weak statement. The findings presented in Chapter Five provide further insight to the poor actionable gender aspects of the Paris Agreement. The findings highlight that, although gender is considered within the adaptation article (Article 7) in the Agreement, there is a failure to create gendered actions within other critical articles such as those relating to finance, implementation, reporting and transparency. Without gendered actions explicitly outlined in these sections, the consideration of gender equality within the policy objectives becomes meaningless.

The findings from this research also provide evidence that the gendered language used within international guiding strategies directly influences the structure of gender

considerations within Malawi's national climate change, and related, policies. The failure of the UNFCCC to include gendered objectives within key aspects of the Paris Agreement, therefore, has direct procedural justice implications for climate change and gender considerations at national scale. One such example is the unconditional contribution to achieve gender equality in CCA actions as outlined in Malawi's NDC. While the unconditional commitment to achieve gender equality is considered a progressive view within the policy, there are no actionable objectives, resources or inputs detailed for the achievement of this unconditional (achievable without the requirement of external assistance) national commitment. Furthermore, evidence from Chapter Six, suggests that this is compounded by the lack of leadership in gender mainstreaming among state and NGO/CSO actors at the national and subnational level.

Nationally, the findings show that, procedurally, gender mainstreaming in Malawi has been donor-led. This has resulted in the generic promotion of gender considerations, with an emphasis on promoting gender balance only, and without funding indirect gender mainstreaming activities, such as gender sensitisation in rural communities. Evidence from fieldwork suggests that donors do not conduct context-specific gender analysis, rather, donors rely on generic actions which are more easily measured and quantified, such as aiming to achieve a gender balance within projects and programmes in the Lower Shire Valley. Kabeer (1999) describes the development policy domain as having a preoccupation with the need to measure and quantify actions, which inhibits gender mainstreaming and women's empowerment potential. Therefore, it is unlikely that gender mainstreaming in CCA activities can be achieved without external support or a significant change in current practices.

The findings presented in this research have also extended the knowledge of procedural justice issues at the local scale. The most commonly used approach for gender mainstreaming at the local scale is to increase women's participation in CCA through incorporating gender balance actions. This aims to address key procedural justice issues. The findings from survey data in this research indicate that men and women have equal participation in formal CCA practices and, as a result, the effort of promoting gender balance within CCA actions at national and subnational scale has been beneficial. However, while increased female inclusion in CCA is positive, key challenges remain with

women's participation in CCA projects, committees and community leadership roles; these have procedural justice implications and are explored in the next section.

8.2.1. Procedural justice, participation and empowerment at local level

While survey data reflects presents a positive picture of women's inclusion and participation in CCA, the emergent themes form interviews with national and subnational actors, and the exploration of local level empowerment indices, highlight that the outcomes of this participation do not necessarily translate to more just or more equitable CCA structures and actions. Furthermore, effort for parity and relative increased CCA access says little about justice, inclusion, true participation, engagement and resulting empowerment for women.

A common theme that emerged among national and subnational actors was the view that achieving gender balance, or parity, within CCA activities was sufficient for the project to be considered a fully gender mainstreamed project. This was highlighted by a quote from a subnational actor discussing the largest government-led adaptation project within the Lower Shire Valley: *"...I think [gender mainstreaming] was taken on board...it should be...60 percent women to 40 percent men"* (L/GOV_1). However, the key findings from Chapter Seven highlight women's limited engagement in leadership positions within groups and committees in the Lower Shire Valley. While key actors felt that they have improved women's access to these groups and committees, there remained key restrictions on their full participation in these groups. An emergent theme found in Chapter Six showed that many women were reluctant to take part in groups and projects, especially in leadership roles. Women often preferred male household members to represent them or looked to male committee members to make decisions on their behalf. This is highlighted in an excerpt from a national level interview:

"... when you try to analyse [a woman's] contribution towards a committee, if she is a treasurer, if she is a secretary, or even a chair lady, you still find that at the end of the day, I may just be [an ordinary] committee member, I am a man, even the chair lady will look up to me as the final decider" (N/NGO_5)

The inclusion of women in these decision-making roles would, in theory, provide women with the opportunity to participate in the development of projects and activities, which would be beneficial to women and their communities, through the integration of a female perspective, within CCA activities. This highlights the shortfalls of depending on gender quotas as the main practice of gender mainstreaming in CCA activities in the Lower Shire Valley.

The finding of women's limited participation in leadership roles, and women's reluctance to engage in decision-making within groups and committees, is reflected in concepts of empowerment or disempowerment. Kabeer (1999) suggested that by simply increasing access to resources without working to improve the agency and achievement of women would result in little change in empowerment indicators. Rowlands (1995) argued that empowerment should consider more than just creating access to decision-making, it should also develop the ability of people to perceive themselves as able and entitled to occupy the decision-making space. The findings from the Lower Shire Valley presents empirical evidence that current mechanisms of support for women's participation are failing to create a system where women are empowered enough to, as Rowlands (1995) states, feel entitled to occupy the decision-making space. The evidence from this research also indicates that donors, by choosing to only consider gender balance within projects, fail to improve the agency and achievement of women, considered crucial by Kabeer (1999).

A reasoning for women's limited participation in leadership and decision-making roles was posited by national and subnational actors as a result of women's lower education. This presented two barriers: firstly, women might not be selected for a leadership role, because a leader is required to disseminate information to the wider community; and secondly, because women with less education may lack the confidence to engage as community leaders, and therefore do not put themselves forward. Education, in the context of gender and CCA specifically is an under-explored area, however, education has been well researched and emphasised as a tool for empowerment within the development sector more generally (Sen, 1999). The access and progression of girls in education remains a persistent challenge, especially in rural SSA (Mwita & Murphy, 2017). When discussing gender justice in the context of education,

Mwita and Murphy (2017) highlight the importance of access to education and the necessity for women and girls to participate in decision-making bodies to ensure their needs are addressed.

This example presents the shortfalls of gender mainstreaming within its current format to facilitate procedural and gender justice. This thesis argues that this is due to the failure of policy makers and donors to support mechanisms to achieve gender equality, such gender sensitisation, civic education and the training and support for the empowerment of women in order to engage and participate fully in CCA projects and actions. As a result, this research contributes an empirical perspective on the limitation of gender mainstreaming in CCA, and contributes more broadly, with empirical evidence to support the key concerns of gender mainstreaming as identified by Esquivel (2016); that gender mainstreaming fails to challenge current power structures.

8.3. (Re)distributive justice? Community adaptation versus external adaptation

This research has provided a unique insight into the disparities between the global and local scale on concepts of the distribution of the benefits and burdens of climate change (Johansson-Stenman & Konow, 2010). As such, the interaction of external actors and the traditional value systems in CCA actions and distributions in the Lower Shire Valley has provided the most novel findings of this research.

The critical roles of traditional leaders within power and governance structures in the Lower Shire Valley has been presented throughout the previous chapters of this thesis, particularly in Chapter Three. This demonstrated the powerful role which traditional leaders play in the day-to-day experiences of their communities. As a result of this powerful position, traditional leaders play a considerable role in the distributive justice mechanisms of CCA in the Lower Shire Valley. This thesis argues that there has been a shortfall amongst policy-makers and academics in examining the interaction of policy action and local traditions in distribution and coping mechanisms. It is further argued that this shortfall is negatively impacting on the potential for successful gender

mainstreaming and the just distribution of the benefits and burdens of climate change among groups and individuals in the Lower Shire Valley.

Most significant observation in this context of this research was the practice of distribution and redistribution of CCA goods and inputs amongst communities within the Lower Shire Valley. Food sharing was a common practice among households within participant communities. This unique insight into the redistribution of food contributes novel findings on the influence of local scale power in the resistance to external processes. It also shows a resistance to changing gender norms within rural communities in the Lower Shire Valley. The collective action of food sharing was an ongoing practice and discussed openly as a positive coping mechanism, however, it was regularly criticised by development organisations. Further examination of the demographics of the recipients of humanitarian aid, indicate that more female headed households and elderly groups received these resources. The findings also showed that female headed households had considerably lower crops yields, and this would suggest that they are, indeed, more food insecure and the rightful recipients of humanitarian aid. Furthermore, the theme of redistribution contributes new findings to barriers of current structures of community-based participatory practices, commonly drawn on in CCA and development programmes.

Community-based participatory CCA can be understood as a community-led process, based on the communities' prioritised needs, knowledge and capacities which are necessary to empower people to plan and cope with the impacts of climate change (Reid & Huq, 2014). Community-based adaptation is likened to the participatory approach which has long been a prominent aspect of development literature and action (Cornwall, 2003). The approach builds on international development practices and norms, such as the respect for diversity, community strengths, cultural identities, power-sharing and co-learning (Lucero, et al., 2018). It has been considered a relevant approach for CCA (Ayers & Forsyth, 2009; Reid, et al., 2009), for the inclusion, participation and empowerment of women and marginalised groups (Mayoux, 1998). It is also intended to build resilience and adaptive capacity of communities (Nagoda & Nigthingale, 2017). There have been criticisms of community-based adaptation for not sufficiently acknowledging the broader political contexts in communities (Dodman & Mitlin, 2013). More recently, Wood et al (2018) indicated shortfalls of this participatory approach in facilitating procedural justice

in the context of climate-compatible development, as households' meaningful engagement in project activities and decision-making was often curtailed. Indeed, community-based participatory approaches have been criticised due to the notable variation between values and resource priorities, and the potential for unequal power and authority relations to be reproduced and compounded (Leach, et al., 1999).

This research has provided evidence that community-based participatory approaches to CCA are not being successfully implemented in the Lower Shire Valley, and have key shortfalls. Most importantly, the findings highlight that participatory programmes are not truly participatory, and do not reflect the needs or views of vulnerability, adaptive capacity or the community approach to coping to climate change. Therefore, it shows that potential distributive justice within CCA activities are at odds with the value system of the local community, and also have the potential to exacerbate climate vulnerabilities.

Furthermore, while communities uniformly deemed the redistribution of resources as a positive action, the findings suggest that it is also likely that these processes are a way for traditional leaders to maintain power, resist external influence, and in particular, resist the change, or threat, of gender relations within communities. The resistance of traditional leaders to external CCA actions is most clearly highlighted within emergent themes of resettlement. Relocation threatened the power of traditional leaders, and this resulted in their regular resistance to move, or desire to return of flood-prone villages, in order to maintain their power. This was at odds with the overall perspective of communities, who viewed resettlement as a largely positive adaptation approach, as well as with the views of one female FGD, which were negatively influenced by a traditional leader's proposed return to a flood-prone area.

Finally, the findings from this research contributes new insights into the influence that external actors play in changing traditional community coping mechanisms. The influence of external actors resulted in the change of some community practices, specifically assisting older people through community agricultural support. It was noted that this practice was not on-going during fieldwork, and, at local level, this was attributed to an increased all-of-community vulnerability. However, some key actors stated that the

changes in such practices were the result of external actors' Western individualistic perspectives, and contributed to changes in community value structures:

"I think we are [as a society] adopting more western...cultures [which] are more individualistic... because of this we are also leaving others falling through the cracks. I also think organisation like us – NGOs, INGOs, even government – will end up destroying the social fabrics that were [in rural communities]. I am also talking about programming, we are going straight to the family, bypassing [the] community structures" (N/NGO_2)

This finding highlights that external CCA actions can be at odds with community practices. Externally supported resources are assigned to a person, or a household, based on a predetermined set of vulnerability criteria. However, this research suggests that climate vulnerability is regularly perceived differently by communities and external actors, who see vulnerability at the individual or household level, rather than across a whole community.

8.3.1. Distributive justice and views on vulnerability

An emergent theme from this research is a disparity in the perception of vulnerability to climate change between those at the international, national and subnational levels, as compared to those at the local level. The results also highlight that vulnerability has different meanings to different groups between these scales.

The findings presented in Chapter Six show that all national and subnational actors consider women as a key vulnerable group to climate change due to their socially constructed roles and responsibilities within households and communities:

"women are vulnerable because of their reproductive and productive roles in the community...this makes them vulnerable, it actually increases their vulnerability to the effects of climate change" (N/NGO_1)

However, through local level data collection, it became apparent that women did not readily identify themselves as vulnerable to climate change, in fact, it was an idea that was strongly rejected by some groups of women because women "are able-bodied" and identified the "elderly and disabled, that cannot act alone, who are vulnerable" (F/FG_5).

These quotes, from national and local scale, illustrate the different views of vulnerability between policy-makers and recipient communities. They also highlight how vulnerability is projected onto communities from policy-makers and key actors, and this has implications for distributive justice. National and subnational actors determined climate vulnerability based on roles and responsibilities assigned through gender identities, while women in the Lower Shire Valley assigned vulnerability based on capabilities; those who are physically weaker, older, sick or disabled are considered to be vulnerable.

Despite the observed, and community-acknowledged, high levels of negative gendered coping strategies, such as transactional sex and early marriages, women did not identify these actions as a contributing factor to their vulnerability. This is due to the importance of these actions as coping mechanisms, and the reality of the need for drastic action in times of hardship. As a result, the adoption of these negative coping mechanisms were not seen by women as being associated with a greater vulnerability to climate change. However, women's use of these practices was widely acknowledged across the national and subnational scales. This highlights the persistence of policy-makers' view of women as vulnerable without addressing the critical, and often dangerous, coping strategies women have to engage in as a result from climate change.

The evidential view from policy-makers on women's vulnerability presented in this research is, arguably, formed at international scale, and this research highlights that this vulnerability narrative remains within the mainstream of CCA policy. As such, it can be argued that the language of vulnerability, and the perpetuation of the view of women as vulnerable, across scales, is resultant from the external, top-down approach. This research argues that ultimately, this narrative reinforces and compounds gender inequalities and further marginalises groups, and also provides evidence of distinct gendered distributive injustices for women in the Lower Shire Valley.

This view of women as vulnerable has been upheld and promoted within academia. However, more recently, there has been an effort in scholarship to move away from the homogenous view of women as vulnerable. Some scholars highlight that this view of women's vulnerability is harmful, as it draws attention to women's supposed weaknesses and limitations, reinforces gender inequalities and can negatively impact their agency (Bee, 2014; Cornwall, 2003). Jerneck (2018b) also highlights that women's

initiatives often build on the idea of women's integration and involvement in actions, which neglects the role of men, and other social groups.

As such, building on this body of literature, the empirical evidence presented in this research contributes to the criticisms of a blanket view to female vulnerability to climate change. The findings from this research also support evidence that viewing women as vulnerable ignores women's potential and the gendered social construct in the environment in which CCA is implemented. The empirical evidence also indicates that the view of women as vulnerable to climate change and its effects is strongly at odds with the views and perspectives of the women of the Lower Shire Valley, and their community.

8.3.2. Distributive justice and negative coping mechanisms

When exploring the benefits and burdens of climate change in the Lower Shire Valley, stark gendered differences and injustices were exposed, particularly the burden of negative coping mechanisms placed on women and girls. The findings from Chapter Six and Seven indicate that women and girls engaged in negative coping mechanism more readily than men and boys. This highlights the gender inequalities in the distribution of climate change burdens.

Firstly, early marriages, a distinct gender issue relevant to young women and girls in the Lower Shire Valley, were found to be an under-researched area in the context of climate change. Although similar results were found by Alston et al. (2014) who determined that the impacts of climate change added an impetus to forced marriages of young girls in Bangladesh. The findings presented in this thesis confirm similar activities and reasoning linking climate change, disasters and increased early marriage in with the Lower Shire Valley. Traditional leaders suggested that the practice was viewed as a means of increasing security for families, young women and girls. However, development literature provides details as to why child marriage has negative impacts on the empowerment and agency of women who experience it. Early marriages were described by Brown (2012) as detrimental to human potential, and reinforced gender inequalities on a global scale, negatively impacting education and health of women, including through the increase of sexually transmitted diseases (Clark, et al., 2006).

Like early marriages, the use of transactional sex as a coping mechanism to climate change is a largely under-researched area. There is evidence from development and health literature to suggest that this practice has been employed by women in order to obtain basic needs, improved social status and material expressions of love (Stoebenau, et al., 2016). The findings from the Lower Shire Valley suggest that the transactional sex taking place aligns with the first paradigm, sex for basic needs, and is directly attributed to the increased levels of food insecurity within the region. Evidence of the use of transactional sex as a coping mechanism to food insecurities and poverty has been explored in previous research (Pascoe, et al., 2015). The engagement in transactional sex can further compound the view of women as vulnerable to or victims of climate change, and this can be noted in the assumptions and discussions from national and subnational actors. Key actors were aware of this coping strategy, yet did not take action to address the issue. Previous research by Underwood et al. (2011) on the incidence of HIV/AIDS in adolescents in Malawi showed that the majority of girls who engaged in transactional sex were coerced. Stoebenau et al. (2016) elaborate on this paradigm, and suggest that women engage in transactional sex to access basic needs, and do so because of gendered labour markets, women's disproportionate representation in low-skilled, seasonal jobs and economic desperation in the face of labour migration. The findings from the Lower Shire Valley presented in this thesis indicate that women have a higher engagement in *ganyu*, or piecework, and record lower rates of income-generating activities, which suggests transactional sex as an alternative of last resort. This provides insight into the gendered power and agency dynamics within climate change.

These two examples are the starkest representation of the negative gendered impacts resulting from climate change. The findings presented in this thesis suggest that an increase in gendered negative coping mechanisms are not directly attributed to climate change itself, but are resultant from the failure of policy-makers to fully address apparent and acknowledged gender limitations in resilience. It also highlights the failings of policy-makers to create case-specific gender considerations within CCA. Most subnational and traditional actors interviewed during research were aware of the notable increase in these negative coping mechanisms amongst women, however, no attempts were taken to address these actions. This highlights that distributive and gendered justice

cannot be achieved until policy-makers and external actors recognise the specific contexts in which they are operating.

8.4. Justice for the “forgotten group” and the value of the intersectional lens

By drawing on an intersectional lens within data collection and analysis, one key theme which emerged at the local level was that youth groups are a distinct group. Youths express different views on vulnerability, the challenges of climate change and the CCA practices, as compared to the remainder of the community. This highlights the value of conducting intersectional research on the experience of climate change and access to CCA. This theme, exploring youth as a forgotten group, is explored in more detail below.

Empirical findings from Chapter Seven show the youth group (men and women aged 18–25) of the Lower Shire Valley as having distinct experiences, needs, access and decision-making opportunities to that of the adult population in relation to climate change and CCA. This impacts greatly on their empowerment. The findings also show that youth groups self-identified as a vulnerable group and felt actively excluded from CCA actions taking place within the community. Their self-identified state of vulnerability does not directly relate to climate change or its impacts, rather, their vulnerability stems from a perspective of feeling like a forgotten group. This theme was compounded by the findings, presented in Table 20, which shows the limited engagement of male and female youths in household and community decision-making. When questioned about their engagement in community actions and decision-making, one youth FGD (Y/FG_1) answered that they were “not regularly” considered in decision-making processes, further elaborating that, “on our own, our voices cannot be heard”.

In addition, local level data explored in Chapter Seven indicated that youths were critical of local authorities, particularly chiefs and committees. All older-age FGDs determined these chiefs and traditional leaders as of primary importance in decision-making and authority within communities. The findings from Chapter Seven showed that young people were critical of local authorities because of their feeling of being a forgotten group, their failure to be selected for CCA activities and food sharing practices. Furthermore, young people believed that traditional leaders stood in the way of their

direct access to development organisations, so that youths could voice their needs and requirements for resilience. This has strong implications for procedural justice in climate change approaches. Without the inclusion and participation of male and female youth groups in decision-making and distribution of climate change activities, youths will remain isolated and continue to be, and perceive to be, vulnerable to climate change.

Previous research conducted by Scott-Parker and Kumar (2018) found similar frustrations amongst young people in Fiji in CCA activities. Their paper found that youths are often marginalised from traditional decision-making practices and cannot participate in discussions at community and government level. Their marginalisation, and lack of space to voice their views on CCA and development projects, was a clear challenge for the participating youths. This was also found to be the case for youths in the Lower Shire Valley, as revealed through FGDs. In their publication, Scott-Parker and Kumar (2018) support and affirm the findings presented in Chapter Seven of this thesis, and both highlight the importance of engaging youths in CCA in diverse contexts.

This finding of isolation and limited participation of youth groups in the Lower Shire Valley contributes to the state of knowledge of intergenerational justice. Earlier literature on intergenerational differences of climate change has explored issues of responsibility, and the fair and just distribution of resources and burdens of climate change through theoretical and philosophical perspectives (Gardiner, 2006; Page, 2006; Shue, 1998). In this narrative, there has been a tendency to focus on future generations, which are unable to engage in decision-making on critical issues that will impact future systems (Shue, 2014). However, within disaster literature there have been efforts to explore the differentiated impacts of disasters on children and youths, and the research shows that they are often treated like passive victims, who are largely ignored within top-down approaches in DRM (Mitchell, et al., 2009). A body of research has also presented how positive DRM and climate change actions can occur through youth participation and engagement (Napawan, et al., 2017; MacDonald, et al., 2015; Haynes & Tanner, 2015; Derr, et al., 2013). An example of this is presented in Derr et al. (2013) who highlight the necessity to use other methods of engagement in DRM and CCA, such as photography and art, as youth groups can often resist, or feel excluded from, traditional public engagements, such as town meetings. Additionally, research conducted by Lewis (2018)

shows that intergenerational justice within climate change policy has been neglected and watered down, and the Paris Agreement largely focuses on intra-generational justice, ignoring the views of today's youth.

In reflection on the key literature discussed and the tendency of intergenerational justice in climate change literature to focus on future generations, this research presents the necessity for a greater emphasis on today's younger generations. This research also argues that policy is required to consider the needs of youth groups more readily in CCA objectives, plans and actions. The findings from this research highlight the limitations of the considerations of youth in current policies, as with gender, the needs of youth are often proclaimed to be addressed in policy, however, actionable supports are not provided to address key issues for youths.

The results from this research are supported by existing literature, as within current structures of development, CCA and gender mainstreaming actions, youth groups are a decidedly disempowered group. They do not have access to resources, which is often considered the easiest empowerment domain to provide and measure (Kabeer, 1999). Further still, as long as youths remain on the periphery of decision-making practices, their needs will remain neglected, and youth groups in the Lower Shire Valley will continue be marginalised.

Finally, the lack of empowerment experienced by youths in the Lower Shire Valley directly links to issues of limited access to land and economic and agricultural opportunities for youths. The research has indicated that youth groups, as a result of being excluded from CCA activities and distribution, do not see agriculture as an economically viable opportunity. This leads to challenging questions about the economic future and prosperity of the Lower Shire Valley, due to its current dependence on agriculture for employment and livelihoods, as well as the disempowered nature of youths within these communities. Further questions surrounding how youths can best be supported in development and adaptation measures remain outstanding, and this research proposes that further research on these issues be conducted, including through a youth-led participatory methodology approach.

8.5. Gender mainstreaming or mainstreaming the status quo in CCA?

In recent literature, numerous feminist scholars have highlighted concerns of gender mainstreaming across sectors and domains. Chapter Five highlighted some key themes of criticisms of gender mainstreaming in sustainable development policy (Bidegain-Ponte & Rodríguez-Enríquez, 2016; Esquivel, 2016; Fukuda-Parr, 2016; Koehler, 2016; Razavi, 2016). These scholars present concerns surrounding the vague, non-tangible and immeasurable nature of gendered indicators within the SDGs (Fukuda-Parr, 2016; Koehler, 2016), and the failure of the SDGs to challenge current power structures (Esquivel, 2016). Less research has been conducted on the gender mainstreaming actions within climate change policies.

The findings presented in this research provide great insight into the plans, processes and actions of gender mainstreaming within CCA policies and activities across scales. The results presented here, substantiate the critical perspective of gender mainstreaming in SDGs, but in this CCA context. Empirical evidence has shown that the Paris Agreement, and in turn CCA policies, commitments and actions in Malawi, are subject to the same criticisms of sustainable development policy, and highlights the limited potential for gender mainstreaming to contribute to gender justice within a bid to achieve climate justice.

Aside from the gender mainstreaming implications of policy actions, which have been discussed earlier in this chapter, this thesis also presents a critical perspective on how gender mainstreaming occurs in practice in CCA in Malawi. It also discusses how CCA outcomes are influenced by gender norms within society across scales in Malawi. This finding exposes the interconnections between gender, culture and CCA.

The interaction of culture and climate change has previously been explored by scholars (Adger, et al., 2013; Barnett & Adger, 2007; Kelly & Adger, 2000). For example, in their paper, Adger et al. (2013) open with the statement that every dimension of global climate change is mediated by culture. They consider culture as a central element in understanding and implementing CCA, as risks, decisions and means of implementation are mediated through a specific, localised cultural context. Other papers (Barnett & Adger, 2007; Kelly & Adger, 2000) have also considered the local socio-political

constraints related to culture and traditional power in climate change context. Adger et al. (2013) further outline that climate change can exacerbate risks to cultures, which most external responses fail to address, indicating that CCA itself can have negative impacts on culture, and that culture has the potential to enable or block CCA. The interaction between culture and gender is also recognised in literature. In the context of development, the promotion of gender equality can be considered to interfere with local culture, and this could have ethical implications for development projects, while in other cases, there are concerns that cultural values constrain efforts of gender mainstreaming (Schalkwyk, 2000).

However, there is a gap within the literature on how culture influences gender relations and gender mainstreaming in CCA. This research contributes to that area of knowledge. The findings have highlighted points of resistance to gender mainstreaming in CCA across scales in Malawi. The findings show that traditional leaders in the Lower Shire Valley maintain their influence across the community. This has implications on CCA practices, and as discussed earlier in this chapter, a key reasoning for the redistribution of resources is linked this traditional power, and the resistance of traditional leaders to changing gender norms; a clear example of how culture impacts on gender relations.

Another critical finding from this research, which contributes to the field of gender mainstreaming literature, is the influence of evident misogynistic mind-sets within key actors in Malawi. This is demonstrated in an excerpt from a quote from a subnational actor:

“...Where we have a challenge would be the actual participation [of women] in terms of their ability, to me they seem to slack in terms of delivery, if they are given a responsibility they are barely able to deliver, they tend to demean themselves” (L/GOV_1)

While this perception of the capability of women to participate in CCA projects was not widely evident within key stakeholders interviewed for this research, it does shed light on underlying issues regarding negative gender biases among all actors in Malawi. There was also an emergent theme of a misunderstanding of what gender mainstreaming entails. National actors viewed a misunderstanding of gender mainstreaming at local level

as a function of traditional cultures and values; however, these actors also displayed a misunderstanding of gender mainstreaming and what gender equality entails:

“I think people think gender is coming to change the culture, very few people that understand [what gender mainstreaming is]. At community level, it is very few communities that understand that gender basically talks about interaction between a man and a woman, how you live, what opportunities do you provide to a woman and a man, how do you make sure that there is equality between a man and a woman” (N/NGO_1)

Additionally, the findings show that donors, while appearing to lead gender mainstreaming activities, fail to translate their funding or support to projects which move beyond box-ticking. Donors have also failed to provide funding for projects which aim to ensure gender equality and female empowerment as a key part of CCA actions. The research in this thesis highlights the need for future policies to evaluate more carefully how gender is addressed, taking into account the deeply contextual cultural values held in various national, subnational and local contexts. In addition, it highlights the need to incorporate greater intergenerational perspectives into climate change strategies.

This research contributes a multiscale insight into the influence of current gender mainstreaming practices on CCA activities in the Lower Shire Valley. It shows evidence that within current structures, across scale, there remains a dominant view of women as vulnerable. However, there was no evidence to suggest that women were viewed as resilient, or as agents who have critical knowledge on issues of climate change. As such, the research suggests that current gender mainstreaming practices in CCA remain procedurally unjust, and fail to harness knowledge and contribute to new approaches in CCA. This is a missed opportunity.

Finally, the findings suggested that CCA practices in the Lower Shire Valley were reactive. Reactive adaptation is a deliberate response to a climatic shock or impact, while proactive adaptation takes place before impacts of climate change are observed (Camacho, 2009). Camacho (2009) states that reactive adaptations should be used only in circumstances where proactive strategies were unsuccessful in preventing a hazard from occurring. In their study of adaptation, Adger et al. (2005) present findings that reactive adaptation, such as rebuilding infrastructure after extreme events, tends to

exacerbate vulnerability, as time and money is spent rebuilding after a shock, instead of creating systems which are resilient to shocks. In addition, gender mainstreaming of reactive CCA is likely to cement existing inequalities rather providing the opportunity for transformative change (Alston, 2014). While reactive adaptation approaches remain in place in the Lower Shire Valley, any gender mainstreaming actions that occur are unlikely to progress towards gender equality, as existing vulnerabilities are likely to be cemented.

8.6. Conclusion

Three key themes that emerged through this research were explored more deeply within this chapter. Firstly, the chapter outlines the contribution of this research to strengthening our understanding of procedural justice in gender relations across scales. This contribution provides evidence of the trickle-down of gendered language from international policy to subnational implementation. However, the findings show the while efforts to include a gender balance in CCA actions within Malawi has taken place, this has not translated to the empowerment of women. As a result, women often have a lower adaptive capacity. Secondly, the chapter explores issues of (re)distributive justice and highlights the contribution of this research to extend knowledge by providing evidence of the lack of truly participatory CCA approaches, resulting in the redistribution of resources. This is considered to be a result of resistance by traditional leaders to changing norms, and also attributed to the influence of external value systems. Thirdly, the results highlights the benefit of using an intersectional gender lens to conduct research and to inform policy. In doing this, the views and perspectives of youth groups in the Lower Shire Valley is presented in the context of intergenerational justice. An intersectional lens provides a more diverse analysis of social groups, extending further than a gender divide alone, and this research recommends that this needs to be incorporated into policy, to allow other voices to be heard. Finally, the chapter presents a summary of findings and their contribution to knowledge on gender mainstreaming in CCA.

Chapter Nine, the conclusion to this research, follows. It presents a summary of the research questions and presents the implications of this research for international and national policy frameworks. It also highlights suggested areas for future research.

9. Conclusion

This research adopted a multi-method approach to achieve the overall aim of determining the impact of current gender mainstreaming practices in CCA policies on gender relations in the climate vulnerable area of the Lower Shire Valley in Malawi, through answering the specific research questions highlighted in Table 23. It drew on extensive literature and policy reviews, gender analyses, semi-structured interviews, focus groups discussions and household surveys in order to answer these questions. Data collection extended across scales, including policies and actors operating at and across international, national, subnational and local levels. Data was collected from government, non-governmental and civil society sectors, as well as traditional leaders and citizens in Malawi. This data collection resulted in a rich dataset with broad and diverse findings. This dataset was analysed using qualitative methods of content and thematic analysis with survey data stored and analysed in Microsoft Excel.

This chapter distils the key findings in relation to the research questions. It also presents a summary of the research implications on national CCA policies in Malawi, and recommendations for future gender mainstreaming actions in climate change, including international CCA policies. Thereafter, suggestions for future research will be outlined. Finally, the chapter closes with concluding remarks on the research.

Table 23: Research Questions, recapped

Research Questions	
RQ1	To what extent do gender considerations in international climate change policy influence gender mainstreaming in CCA policies at national scale in Malawi?
RQ2	How are CCA resources distributed at subnational scale influenced by gender mainstreaming in the Lower Shire Valley, Malawi?
RQ3	Are there differentiated experiences of climate change (based on gender, age and other social identifiers) in the Lower Shire Valley?
RQ4	How do different groups (based on gender, age and other social identifiers) in the Lower Shire Valley access CCA resources?

9.1. Key findings and contributions

The four research questions set out in the introduction of this thesis sought to establish a multiscalar reading of climate justice and gender mainstreaming. Key findings are summarised below:

RQ1: To what extent do gender considerations in international climate change policy influence gender mainstreaming in CCA policies at national scale in Malawi?

To examine the extent of international policies influencing gender mainstreaming in CCA policies in Malawi, a multi-phase policy review was conducted of relevant influencing international policies from the climate, development and disaster sectors. The policy review also examined Malawi's governing, and long- and medium-term development strategies. The findings showed that there has been an increase in the use of gender language across the international and national scale since the BPfA in 1995, with notable progress since 2015 in international development (SDGs), climate (Paris Agreement and Lima Work Programme on Gender, LWPG), and disaster (SFDRR) policies.

The gender analysis of key policies reviewed demonstrated an increase in gender language used throughout policies. The gender analysis of national policies demonstrates a time-lag for the inclusion of progressive gendered language, drawn from influential international strategies. Between the years 1998 and 2012, there was no advancement from policies which viewed women as vulnerable towards policies which provided affirmative actions to increase women's participation in climate change policy development or implementation.

The national climate change, and related, policies are influenced by both national governing strategies and guiding international policies. The gender language and approach used in these guiding international policies are mirrored in the national policies reviewed. The influence of international policy considerations around gender mainstreaming language over time is evident in the comparison of the 2012 National Climate Change Policy and the 2016 National Climate Change Management Policy. The 2016 National Climate Change Management Policy draws on the Paris Agreement, and

although it does not position itself as an intersectional policy, there is clear progression towards an intersectional reading of gender within the language used. The 2012 policy, on the other hand, failed to establish actionable objectives to achieve the gender considerations, while the language in the 2016 policy made strides for gender mainstreaming in all policy plans and actions.

Conversely to this, the National Disaster Risk Management Policy, launched in 2015, provides an example of where the gender language used in international policy has failed to influence gender considerations in key national policies. This resulted in the National Disaster Risk Management Policy remaining gender blind, i.e. the policy made no reference to gender or women at all. This highlights some critical barriers to the successful inclusion of gender considerations in national policies. The gender blind nature of the policy presents insights into the weak influencing power and the current structure of Gender Focal Points, GFPs. The weak influencing power of GFPs in Malawi was found in research conducted by Moser in 2005, and findings from the DRM policy would indicate that that little has changed in the 11 years between Moser's research and fieldwork. The findings from this research suggest that this is due to high work demands of the GFPs, the feeling gender is not relevant or important to include, or due to the weak influencing power of GFPs within the Department of Disaster Management Affairs. Other research, previously conducted by the Government of Malawi, indicates that GFPs occupy lower positions within their host ministries (Minsitry of Gender and Community Services, 2003), which indicated the level of importance given to their duties within the scope of the Government.

Finally, this research substantiated a lot of critical perspectives of gender mainstreaming (Bidegain-Ponte & Rodríguez-Enríquez, 2016; Esquivel, 2016; Fukuda-Parr, 2016; Koehler, 2016; Razavi, 2016), within a CCA context. The results show that although there has been progress in terms of the gendered language used in policies, there has been a key failure in international policy to ensure strong mechanisms to create meaningful change in ensuring gender equality is achieved in CCA actions. The lack of reporting, monitoring and transparency mechanisms has created a system that allows countries to tailor, and potentially water-down gender mainstreaming actions, potentially including in Malawi. As such, this research provides evidence that the lack of these

mechanisms in policy has created a system in Malawi where working towards a gender balance within CCA actions remains the key, and often only, gender consideration employed. This has resulted in an apparent level of gender parity of beneficiaries receiving formal adaptation support. On the surface, this appears as positive progress. However, local level findings highlight how, in practice, numerous groups in society, including women and girls within the Lower Shire Valley, maintained a limited adaptive capacity and engaged in high risk coping activities as a result.

The call for gender mainstreaming in policy is necessary, but insufficient to achieve gender equality. This is evidenced when the implications of gender mainstreaming are not necessarily supported across scales and cultures. Similarly, it is not the case that simply incorporating equal numbers of women within programmes or decision making fora will lead to equal levels of influence in decisions taken, or that those decisions will necessarily identify or lend significance to high risk strategies of vulnerable social groups.

RQ2: How are CCA resources distributed at the subnational scale influenced by gender mainstreaming in the Lower Shire Valley, Malawi?

To understand how the distribution of CCA activities is influenced by gender mainstreaming to the subnational area of the Lower Shire Valley, this research drew on key stakeholder interviews and thematic analysis. This research showed that while gender equality is increasingly discussed across all forums and actors of CCA in Malawi, it remains viewed as an external concept. Within the national landscape, there is no clear actor taking the lead on the issue. The Malawian Government, NGOs and CSOs actors discussed how donors are driving gender mainstreaming in development and CCA practices. The finding that donors are driving gender mainstreaming is not unsurprising, as Moser and Moser (2005) found that at international level, most development institutions have clear gender equality terminology, and that it is used consistently. Furthermore, the finding echoes earlier research conducted by Wendoh and Wallace (2005) who analysed gender mainstreaming in an African context. Reflecting on this 2005 research, it becomes apparent that there has been little progress or change in the national landscape of gender mainstreaming, and these issues remain persistent in the implementation of gender mainstreaming actions in CCA.

The findings from this research further suggest that due to the view of gender mainstreaming as an external concept, there was uncertainty regarding who should be the driving force in creating gender equality in national and subnational governing bodies in Malawi. Interestingly, gender mainstreaming in CCA is considered in its infancy, as compared to other sectors in Malawi. The representative from the Ministry of Gender, Children, Disability and Social Welfare, interviewed as part of this research, indicated that there were no clear guidelines on addressing gender in climate change. However, this research ranked Malawi's NDC as a gender sensitive policy, because gender issues were noted to be addressed unconditionally (i.e. without external assistance). Upon thematic analysis of national and subnational data, however, it appears that this commitment is unlikely to come to fruition, as clear guidelines as to how achieve this goal are lacking.

The findings show that there is a twofold disassociation of gender mainstreaming taking place between the national and subnational scales in Malawi. Interviewees expressed that at the national scale, actors feel gender mainstreaming should take place within the district; while at the subnational scale, district officers believe that donors and NGOs need to provide greater support for gender mainstreaming. In addition, findings emerged that, often, national and subnational actors dissociated themselves from gender discriminatory traditions and cultures, indicating that these issues occurred at the local level only. However, it was noted within some interviews that deep-rooted gender biases and misogynistic mind-sets also affect how subnational and national stakeholders view women accessing and participating in CCA. Conversely, both Traditional Authorities interviewed expressed progressive views in interviews, and considered themselves to be leading by example. As such, the lack of political will to mainstream gender into procedural and institutional mechanisms (Miller & Razavi, 1995), remains a key challenge.

In addition, the findings show that national and subnational actors have a homogenous view of gender and gender relations in a climate change context. The results show that, overwhelmingly, national and subnational actors in Malawi discuss female vulnerability when talking about gender issues in climate change. This was, as reflected in much of the existing literature, as a result of women's roles and responsibilities within the community (Cuomo, 2011; Jones & Boyd, 2011; Kakota, et al., 2011; Deressa, et al., 2009). The findings from this research showed that while national and subnational actors are

aware that women are engaging in high risk activities such as transactional sex, early marriage, and dangerous food harvesting, these highly gendered high-risk coping mechanisms are not being addressed by current interventions. These high-risk coping mechanisms have been largely ignored within policies and activities of stakeholders working on climate change and disasters in the Lower Shire Valley. This highlights the shortcomings of current gender mainstreaming approaches amongst actors implementing CCA in Malawi.

It is notable that while literature and policy present the commonality between vulnerability and resilience (Bahadur, et al., 2010; Adger, 2006), and it is argued that their points of convergence are more numerous than their points of divergence (Adger, 2006). However, the findings show that female resilience to climate change, or specifically supporting their agency to adapt to climate change, did not emerge as a theme from interviewees themselves. Women, in the eyes of national and subnational actors, were viewed as vulnerable agents only. Similarly, within academic research, the tendency to view women as a homogenous vulnerable entity can also be identified (Terry, 2009; Momsen, 2004; Dankelman, 2002; Denton, 2002; Dikito-Wachtmeister, 2000). More recently, this view has been challenged by scholars (Pearse, 2017; Bee, 2014; Arora-Jonsson, 2011; Alaimo, 2009) who argue that the view of women as universally vulnerable to climate change can have negative implications on power relations, inequalities, marginalised groups and other social groups. Furthermore, it has been suggested that the language of resilience is replacing that of vulnerability as a guiding framework for development planning (Weichselgartner & Kelman, 2015). As such, this persistent view of women as vulnerable agents only may further compound their marginalisation in participation in CCA, particularly if resilience becomes the more dominant narrative. This has implications on procedural justice.

Finally, this research observed that the potential for gender to be mainstreamed fully within CCA actions was limited, due to the reactive nature of CCA approaches observed in the Lower Shire Valley. This was seen in the limited effort to implement long-term adaptation or DRM strategies to create more resilient communities. In areas where DRM actions, such as relocation were taking place, the progress was often slow. The findings from this research, along with the views of some scholars (Alston, 2014; Adger,

et al., 2005), suggest that within such structures, gender mainstreaming is not considered a priority, and this will remain the case until a proactive, long-term and resilience focused approach is considered.

RQ3: Are there differentiated experiences of climate change (based on gender, age and other social identifiers) in the Lower Shire Valley?

In the literature to date, there is evidence which suggests that men and women, along with other social groups in society, have different experiences of climate change, particularly during and in the aftermath of disasters (Jost, et al., 2016; Alston, 2013; Brody, et al., 2008; Enarson, 2000). Often, women are viewed as the more vulnerable actors due to higher rates of poverty, and the roles and responsibility they take on in society (Kakota, et al., 2011; Cuomo, 2011). To explore the reported differentiated experiences of climate change, this research drew on local level data, collected through surveys and focus group discussions.

The findings from Chapter Seven indicated that the reported experiences of climate change impacts between men and women did not vary greatly in the Lower Shire Valley. Evidence from survey data showed that all groups examined determined climate change, along with hunger, poverty and access to CCA and development resources as the key challenges faced. During the time of data collection in 2016, the community had experienced heightened stresses resulting from climate change. All participants had experienced some form of loss of crops, livestock, land, homes or family members over the period of 2015 and 2016, as a result of consecutive floods and droughts. This created an assumption, by many, of an all-of-community level of vulnerability. This was indicated in responses in surveys and FGDs, where members of the community stated that vulnerability was experienced equally throughout communities, and groups failed to identify the intersection of social identifiers contributing to their vulnerability.

Interestingly, the view of female vulnerability to climate change held at national and subnational scale was directly opposing to perceptions of vulnerability at local level. This research indicated that women do not self-identify as vulnerable to the impacts of climate change and view themselves as agents of change and protection within their

communities. Within FGDs, community members stated that they are “all equally affected by climate change because [they] all stay in the same area and experience the same changes” (F/FG_2). Based on the view of vulnerability as community-wide and non-differential, there was an uncontested view that there was not enough assistance being provided. It was often stated that less than half of the community were receiving any given input to adapt to climate change. When research participants at local level did assign vulnerabilities to climate change based on social categories, they did so in a different manner to national and subnational actors. The findings show that national and subnational actors determined climate vulnerability based on roles and responsibilities assigned through gender identities, while women in the Lower Shire Valley assigned vulnerability based on capabilities; identifying those who are physically weaker, older, sick or disabled as vulnerable. Despite the observed and community-acknowledged high levels of negative gendered coping strategies, women did not align these coping strategies as a result of social constructs, or a factor of their vulnerability. This is likely to be due to the value of these actions as coping mechanisms have for women, and the reality of the need for such actions during times of hardship, and results in these actions not being associated with greater vulnerability to climate change.

By drawing on the use of an intersectional gender lens during data collection and analysis, the research explored differing experiences of climate change based on age and sex. The findings revealed differentiated experiences were noted based on age, rather than gender. This research indicated that both the youth (18–25) and the elderly (65+) self-identify as vulnerable groups, based on their experiences of climate change and its resulting challenges. The youth group further elaborated on their differentiated experience, by highlighting their perception of being a forgotten group in terms of access to development organisations, the limited input they receive and their limited opportunities to express their views. The results from survey data compound these findings, indicating that both male and female youths had limited opportunity for decision-making or participation in leadership positions within CCA committees and groups. Further still, while youth FGDs were mixed, it should be noted that it is likely that a high percentage of women engaging in transactional sex are found within with youth category. Therefore, this doubly compounds the vulnerability of young females in the Lower Shire Valley; unable to access CCA, unable to voice their views, and likely to adopt

negative coping mechanisms. This further highlights the value of using an intersectional lens of data collection on issues of gender and climate change.

Research indicates that there are different experiences of climate change noted within communities in the Lower Shire Valley. However, those who identify as vulnerable or those who suggest greater vulnerability to climate change are not the same groups those which national and subnational policy-makers focus on with national policies. The analysis of local scale data indicates that there are clear gender differentiated vulnerabilities to climate change, the impact of climate change and in methods of coping. The findings suggest that vulnerabilities defined in policy and those experienced in communities are different. Furthermore, the gender considerations in policy in Malawi, to date, have done little to address critical issues and concerns of the local communities in the Lower Shire Valley.

RQ4: How do different groups (based on gender, age and other social identifiers) in the Lower Shire Valley access CCA resources?

To explore how different groups accessed CCA resources at local level in the Lower Shire Valley, FGDs and survey data was explored. The analysis of access to formal adaptation supports indicated that there is gender parity, a gender balance, in the access and use of formal CCA practices in the Lower Shire Valley. However, the benefit of accessing CCA for women is limited, as results show they are involved in greater engagement in negative coping mechanisms, such as changing eating habits. There was also a noted increase in transactional sex and early marriages as coping mechanisms employed by women; this was found in numerous communities in the Lower Shire Valley, indicating that women are experiencing heightened challenges because of climate change and disasters. These issues remain unaddressed within communities, CCA actions and policies.

The results also indicated that women reported higher rates of crop failure and lower agricultural yields, particularly amongst female headed households. This may be due to the evidential gender gap in agriculture (Alkire, et al., 2012) but it has been long-noted that there are difficulties when comparing levels of productivity between men and

women, as there are so many variables which affect production level (Quisumbing, 1996). The role of social norms inhibiting women's adaptive capacities have also been explored (Kakota, et al., 2011) and other challenges such as land tenure rights and decision-making (Alkire, et al., 2012) can influence women's adaptive capacity and agriculture productivity. The literature has provided evidence that the role of social and cultural practices and norms negatively impact adaptive capacity. The findings here provide empirical evidence that creating a gender balance in CCA practices does not equally improve resilience, nor does it empower women, and it is imperative for Malawi's CCA policies and actions to move beyond this measure alone. As a result of reduced yields and limited opportunities for women to pursue income-generating activities, such as employment, business opportunities, or migration, there were notable differences in the engagement of negative coping strategies.

Through FGDs, it was identified that communities conduct food sharing practices by distributing humanitarian aid. This was viewed as a positive action among communities, but a negative practice by national and subnational actors. Data from this research indicates that the humanitarian aid was targeted at high rate towards the elderly and female headed households. Therefore, while food sharing was considered positive, the community food sharing practice has the potential to reduce the access to much needed CCA resources, and thereby contributed to climate change vulnerabilities and a persistent limited adaptive capacity.

Finally, the findings also show that youth groups have limited access to formal adaptation, and the lowest representation in local governing structures of groups and committees. The findings indicated that youths felt isolated, with limited access for youths to external actors providing CCA and developmental support, which resulted in their needs and requirements going unaddressed in ongoing CCA actions in the area. The survey data showed that young men (18–25) have the highest reliance on *ganyu*, informal labour, as compared to all male groups, and zero percent of the group reported having reliable income generating activities. Young women (18–25) reported amongst the highest percentages of all female groups engaging in income generating activities, this may have a link to the increase in transactional sex, although there is no supporting evidence to confirm this. The research also observed that there has been an increase in

early marriages in the Lower Shire Valley. This was evidenced by FGDs with youth groups and was also discussed by traditional leaders. This issue is largely considered to impact young women and girls, however in one FGD, it was stated that young men were also marrying early as a coping mechanism. This should be explored further in future research.

The power held by traditional leaders in the distribution of inputs and resources, and within decision-making in communities, is another key issue raised by this research. The findings show, particularly in theme of resettlement, the need for traditional leaders to maintain the status quo on community, and specifically gender, norms. The redistributions of goods, while highlighting the inadequacies of current participatory responses, also highlights the resistance of changing practices in how resources are distributed to communities.

9.2. Research Implications

This research provides a multiscalar analysis of policy and highlights various stages where current gender mainstreaming practices have fallen short to date. While the case study of this research has provided contextualised findings particular to the Lower Shire Valley in Malawi, it has broader implications nationally, internationally, and for policy and academia.

9.2.1. Implications for national CCA actions in Malawi

This research has provided a clear insight into key barriers of gender mainstreaming within the national and subnational CCA policy landscape. The findings show that within the Lower Shire Valley, to date, there has been a failure to create a proactive, forward planning, CCA policy. It has been noted that reactive CCA policies and actions are not a model for creating resilience, in fact, they tend to exacerbate vulnerabilities (Camacho, 2009; Adger, et al., 2005). Increased vulnerability is evident within the Lower Shire Valley, and throughout Malawi, and communities at the time of data collection were struggling to survive, with high rates of food insecurity and limited livelihood opportunities available in the region. The findings from this research indicate that further CCA policy actions are required to move beyond reactionary CCA.

Accordingly, it is necessary to develop long-term and extensive CCA plans, which also diversify livelihood opportunities. This is particularly true and pressing as research found that younger generations are increasingly unable to see a sustainable future in the agriculture sector under current conditions.

There are clear insights from this research about the limitations of current gender mainstreaming practices in CCA policies in Malawi. The findings show that although there has been an improvement in the representation of women accessing and practicing CCA, there remain key gendered differences in the climate change experience, specifically in the coping mechanisms adopted. This research has implications for national policies, as it highlights the need to change current gendered practices. In addressing gender issues, policy makers need to do more than increase representation of women in actions alone.

9.2.2. Implications for gender mainstreaming in CCA policies internationally

Feminist scholars have criticised gender mainstreaming practices at the international scale for their lack of depth and meaning, and suggest that the policy practice in this space has been watered down considerably over time. The policy review in Chapter Five shows evidence of this in the translation of CCA actions across scales. The findings suggest that national policies in Malawi mirror the approach to gender as it is outlined in influential international policies. This highlights two areas of importance for the approach which gender mainstreaming should assume in future international CCA policies and actions.

Firstly, international policies must do more to include gender throughout all CCA policy actions, especially within implementation, finance, reporting and transparency. To date, there has been a notable lack of gender considerations throughout these aspects of policy. In that respect, policy-makers, when considering gender, must change how they measure and value successful outcomes. As stated by Mwita and Murphy (2017, p. 158) policy-makers must move beyond number crunching, or head-counting, which has been the business-as-usual approach to providing evidence of gender equality and female empowerment. The research in this thesis highlights the need for future policies to evaluate more carefully how gender is addressed, taking into account the deeply situational cultural values held in various national, subnational and local contexts. In

addition, it highlights the need to incorporate greater intergenerational perspectives into climate change strategies.

Second, the research highlights the impact that Western individualist values have on rural communities, who have traditionally employed coping mechanisms as a village, or across a whole community. While, external actors aim to improve the resilience of the vulnerable or marginalised in a community, their approach may ultimately erode traditional community structures of coping, which have been in place prior to development assistance. The findings in this research show that this has the potential to deepen the vulnerability of the marginalised, as households begin to value their own needs over the community. This highlights the need for policy-makers to assess current practices of the communities they aim to assist, and determine a way to work within these practices in order to create positive outcomes, rather than changing value structures in the area.

9.3. Suggestions for future research

A number of emergent themes arose through this research, all of which could not be explored in detail and therefore, suggestions for future research are outlined here.

Firstly, gender analysis is a growing area in climate change literature. This research has provided a multiscale overview of gender mainstreaming practices in the Lower Shire Valley, and the findings here remain contextualised to the local area, as local gender relations vary from place to place. As such, similar multiscale analyses in other climate vulnerable locations, including in different regions in Malawi, is warranted. By doing this, it would provide deeper insights for international policy-makers regarding future approaches to gender mainstreaming. It is also suggested, to complement this research, that a quantitative analysis of the gender considerations in financial flows for CCA should be conducted.

Secondly, more attention is needed to understand the distinct experiences of youths in climate vulnerable regions. This research has provided insight that youths experience climate change differently and have opposing views as to what CCA should

look like. Previous research has proved that by engaging youth, through non-traditional community engagement can result in positive outcomes for research and policy. It is suggested that the youth dynamic of climate change in the Lower Shire Valley is explored through participatory methods, such as participatory video methodology, which would allow for a more thorough insight into youth perspectives. This would give the youth a greater voice and the opportunity to inform policy.

Finally, there is a need to further explore gendered coping strategies, across ages and places. The findings here suggest that climate change, under current social structures, in Malawi results in women and girls increasingly engaging in high risk activities. These mechanisms contribute to their persistent disempowered state. Although a reoccurring theme within this research, more attention is needed to understand the causes, reasoning and potential impacts of women and girls engaging in practices such as transactional sex and early marriage because of climate change. There is also a need to explicitly explore the correlations between these high-risk activities and climate change, as there could be other critical variables that contribute to the observed increase of these practices, such as increased migration and the influx of development organisations into a vulnerable area.

9.4. Concluding remarks

A central focus of this research aimed to explore the differentiated vulnerabilities of climate change, the distribution of and access to CCA, in the context of gender equality. At the centre of this was climate justice, specifically procedural and distributive justice. Gender justice has been viewed as a critical component of any climate just framework (Terry, 2009), and much research has explored the gendered experience on climate change. This research has focused on women's representation within international climate negotiations (Terry, 2009; Momsen, 2004; Dankelman, 2002; Denton, 2002; Dikito-Wachtmeister, 2000) and, at local level, the negative impacts of climate change experienced by women, based on their socially constructed gender roles (Jost, et al., 2016; Kakota, et al., 2011). There is a gap in the literature surrounding how gender relations within climate change interact across scale.

To rectify this, this research draws on a multiscale approach to analyse climate justice issues regarding gender. By using the trickle-down of gender considerations from the international to the local, this research explored the distribution of CCA resources, based on gender mainstreaming in the Lower Shire Valley in Malawi. This site was chosen based on high climate vulnerability and high levels of climate finance (Barrett, 2014; 2013). A multiscale analysis allows us to capture more holistically the social, political and economic processes that shape societal impacts of climate change and its governance (Betsill & Bulkeley, 2006). In addition, in a bid to progress the debate away from the view of women as homogenous vulnerable group, as is often presented within climate change literature, this research drew upon the intersectional feminist approach. This approach is grounded in the understanding of how knowledge and power, along with the awareness of how intersecting social constructs and identifiers, can influence one's experience to any system, and in this case, climate change. As such, this research contributed, complemented and extended the knowledge in the field of climate justice and CCA by contributing a multiscale gender analysis of CCA, and providing empirical research to highlight barriers and pitfalls of gender mainstreaming across these scales.

The findings show that there has been an observable improvement in the discussions of gender issues within the climate change policy domain across scales. However, there are clear barriers of success for gender mainstreaming. These include the failure to create implementation and reporting mechanisms, a contradiction of norms presented in policies to those at local level in the location of implementation, a lack of leadership on dealing with gender equality, and a lack of nuanced examination of gender relations in areas of implementation. The findings from the local level analysis in this research show that there has been an improvement in access to CCA resources by women, although this fails to translate to gender equality, or the empowerment of women or youth. As a result, the research highlights the need for policy-makers to move beyond box-ticking activities, such as increased representation, and move towards more meaningful gender mainstreaming actions.

Appendix

Appendix A – Semi structure interview guide

1. Introduction; organisations; affiliation and position
2. What do you identify as the major problems affecting Malawi as a result of climate change?
3. The role of adaptation in dealing with climate change in Malawi
 - a. How important is adaptation in dealing with climate change in Malawi?
 - b. What industry/sector/department has most supported adaptation?
 - c. If there should be more money spent in any sector for adaptation what/where should it be?
 - d. What do think, in your opinion, are the key issues that prevent people from accessing adaptation resources at local level?
4. Disasters in Malawi
 - a. What needs to be done in Malawi to prevent the extensive impacts of disasters occurring, such as 2015 floods and 2016 drought?
 - b. In the southern region el Niño has heavily impacted crop yields for this year, do you think this is something that could be better planned for to prevent such a largescale disaster?
 - c. If yes, how could this planning be done?
5. What are you opinions on the Paris climate change deal?
 - a. Was the outcome good for Malawi, or could more have been included to address Malawi's needs?
 - b. Has the Paris agreement influenced the way gender mainstreaming activities are conducted in CCA?

[The INDC was developed as a requirement for Paris 2015 – Are you familiar with the document? If not explain the INDC]

6. Do you think the INDC will be successful in helping Malawi build resilience to the negative impacts of climate change?
 - a. How has it been implemented to date?
 - b. What more needs to be done?
 - c. Views on the role of the international community?
7. Their affiliated organisation's position and action on gender mainstreaming
8. The view of gender mainstreaming in adaptation tackling climate change
 - a. Their affiliated organisation's position and action on gender mainstreaming?

- b. We talk about gender mainstreaming in climate change adaptation practices, what does this mean to you?
- c. Who is the main driver for creating gender sensitive adaptation policy and projects in Malawi?
- d. And globally, what organisations are the key donors or activists for gender mainstreaming in adaptation in Malawi?
- e. To date, what efforts have been made to mainstream gender in climate change adaptation practices?
- f. Outcomes of this?
- g. Who is leading the way on gender mainstreaming.
- h. Key success and failures of gender mainstreaming in climate change adaptation and strategies?

9. The future for gender and climate change broadly and in adaptation

10. Concluding thoughts and remarks

//Final thanks for participating in the research//

Appendix B – Focus group discussion schedule

Introduction:

Read consent form aloud- obtain verbal (& written consent where possible)

Introductions:

- introduce self, RAs and the purpose of study
- explain how the focus group:
 - will be conducted;
 - how long it is estimated to take
- emphasise confidentiality and ensure privacy
- encourage participation of whole group (there is no right or wrong answer and everyone's opinion is valid)
- Questions before starting?

Ice breaker:

- Ask each participant to state their age; gender; marital status and townland (record these next to codes FP1, FP2 or MP1, MP2 and so on in order of the seating arrangement. *[FP: Female Participant, MP: Male Participant]).

Questions:

1. I would like to start by asking about the challenges that you are faced with in the community?
 - a. What are the five major challenges – try to reach a consensus but record varied opinions
 - b. Rank in order of importance [or impact or level of risk]
 - c. What is the cause of the top five challenges?
 - d. How is the community affected by these challenges?
 - e. Are any groups within the community affected more than others related to these challenges?

*Note if any challenges are related to climate change, livelihoods, disasters, leadership

2. What is your understanding of climate change?
 - a. What about climate variability?
 - b. Who gave you information on climate change?
 - c. Do you think there is evidence of impacts of climate change taking place within your community?
 - d. If yes, can you explain what evidence there is?
 - e. Now back to the five major challenges – has climate change created or worsened any of these challenges?
 - f. If so, can you explain how?
 - g. Are there other challenges that climate change has created for the community?
 - h. Do you think some people in the community have greater challenges than others as a result of climate change? (**PROMPT:** groups such as children, elderly, men, women, female headed households, etc.)
 - i. Probe further to why they believe the above question to be true or false?

*Note if limited knowledge on climate change, spend a brief time elaborating to ensure focus group flow can continue. **Use prompts:** climate variation; disrupted weather patterns; recalling changes in seasons from past to present; unpredictability with planting times for crops.

3. How are you dealing with challenges climate change has worsened or created?

STARTING DISCUSSION ON ADAPTATION:

- a. Have you adopted any traditional adaptation practices? (**PROMPT:** any informal coping mechanisms that have been passed on through generations or past knowledge)
- b. What other forms of adaptation are taking place within the community (please list all that you can remember)? (**PROMPT:** other “new” informal coping mechanisms, funded/supported adaptation projects (NGO, government-led))
- c. From the list of adaptation projects/inputs/finance can you state who is supporting these (ngo or government)? (Who is supporting/assisting community)
- d. From the list of adaptation projects can you state whether all community member have access to these projects? (**PROMPT:** Do particular community members have ownership or greater access to these projects?)
- e. How are beneficiaries for adaptation projects generally selected?
 - i. Who makes this decision (extension workers, traditional authorities)?

4. Now I would like to ask about leadership in the community and how decisions are generally made:

- a. What type of person is considered a leader in the community?
- b. Can you list particular leaders (**PROMPT:** Local government, traditional leaders, village elders, NGO staff, teachers, business people)?
- c. How do these leaders influence resettlement / other changes that take place in the community?
- d. Do these leaders influence who has access to inputs/finance for adaptation?
- e. What role do you play in decision making on community resources/inputs/resettlement (or general community decisions)?
- f. Do you know of any adaptation/resettlement policies in Malawi used in your community? (**PROBE:** Do you know of any adaptation/resettlement policies in Malawi used in your community?)

5. The focus groups is drawing to a close, but I would like to ask you two more questions:

- a. What are your concerns for the future?

*Note: concerns don't have to be weather/ climate related.

- b. How can these worries be addressed (what do you need to better cope to the changes happening in your community?)

6. Is there anything you would like to say that has not been covered throughout our discussion?

Thank you for your participation in this focus group.

Appendix C – Household survey

Ref No:

Researcher initials:

Coordinates:

District :
Village :

Date:
Time:

NOTE: Before commencing inform participant of project and what the questionnaire involves (information on consent form)!

1. Basic Information

Sex: Male ☐ Female ☐ Age (estimation, or DOB to the closest year): _____

1	How long have you been living in [Village Name]?	Always (proceed to q3)	
		Years?(record number of years)	
2	If you haven't always lived here, why did you move to [Village Name]?		
3	Which of the following categories do you fall under?		
	Resettled ☐	Planning to resettle ☐	Refuse to resettle ☐ Returned ☐ Not displaced ☐

1.1. Household and Land Characteristics

4	Does your household have any land? (please state number of plots in each category. For non-agricultural land please state its use (e.g. dwelling, commercial land, market area))		Agricultural						
			Non-agricultural						
4a	Total land size:		Total Agricultural Land (if different):						
5	How would you describe the tenure of this land?								
	Freehold (privately owned) ☐	Leasehold ☐	Customary ☐	Other (please specify) ☐					
5a	Was your land acquired through the patrilineal or matrilineal system?								
	Patrilineal ☐	Matrilineal ☐	Don't know ☐	Other (please specify) ☐					
5b	Is the land registered in any household members' name?								
	Yes (your name) ☐	Yes (partners name H/W) ☐	Not registered ☐	Other (please specify) ☐					
6	Observations on type of household								
	Permanent (iron, tiles, concrete, brick, stone) ☐	Semi-permanent (mix of permanent & traditional) ☐	Traditional (unfired mud bricks, thatching) ☐	Temporary (tent) ☐					
7	House ownership								
	Owned by occupants ☐	Rented ☐	Rented (but not by you) ☐	Living in communal housing ☐					
8	How many rooms does your house have?								
9	What time of fuel does your household use for cooking?								
	Electricity ☐	Natural gas ☐	Liquified petroleum gas ☐	Kerosene ☐	Charcoal ☐	Wood ☐	Straw ☐	Agri crop ☐	Animal Dung ☐
10	Where is the cooking usually done?								
	In the house ☐	In a separate building ☐	Outdoors ☐	Other (please specify) ☐					
11	What is the main source of drinking water for members of your household?								
11a	Where is this water source located?								
	In own dwelling ☐	In own yard/plot ☐	Elsewhere ☐						
11b	Is the water at this source always available?								
	Yes, always ☐	No, occasionally there is no water ☐	No, regularly there is no water ☐						
12	Does your household have any of the following? (please tick appropriately)								
	Electricity ☐	Radio ☐	Telephone ☐	Computer ☐	Refrigerator ☐	Other household assets (please specify) ☐			

Does anyone in your house own any of the following? (please tick appropriately and state owner)						
Watch ☐	Mobile ☐	Bicycle ☐	Motorbike ☐	Oxcart ☐	Car/Truck ☐	Other (specify)
13	Does any member of your household have a bank account? (If yes, please state who)			Yes ☐	No (if no, proceed to q14) ☐	
14	Does your household own any livestock?			Yes ☐	No (if no, proceed to q15) ☐	
14a	If yes, please tick & state the number of each animal?					
	Cows or bulls	Horse/donkey/mull	Goats	Sheep	Chicken (poultry)	
	☐	☐	☐	☐	☐	

1.2. Access to services

15	Of the following services, what ones are accessible in your current place and original place? If you have not moved, only indicate presence in your present community			
	1. Old (present)	2. New	3. Both	4. Neither
1.	School			
2.	Market			
3.	Farmland			
4.	Hospital			
5.	Potable water			

1.3. Education & Literacy

16	What is the highest year/form you attended in school? (record the highest year attended)				
	None ☐	Primary ☐	Secondary ☐	College ☐	University ☐
16a	If primary or secondary school were not completed, what was the reason for leaving school?				
17	Do you read the newspaper or magazines?				
	Yes, regularly ☐	Yes, occasionally ☐	No, never ☐		
18	Do you listen to the radio?				
	Yes, regularly ☐	Yes, occasionally ☐	No, never ☐		
19	Do you watch television?				
	Yes, regularly ☐	Yes, occasionally ☐	No, never ☐		
20	If you own a mobile phone, do you ever make financial transactions on it?				
	Yes, regularly ☐	Yes, occasionally ☐	No, never ☐ (if no, proceed to q21)		
20a	If yes, what time of transactions do you make?				

1.4 Marital Status

21	What is your marital status?					
	Married ☐	Married (w/ more than one wife) ☐	Separated ☐	Divorced ☐	Widowed ☐	Never married/ Single ☐
22	Who is the head (leader) of your household?					
	You ☐	Partner (husband/wife) ☐			Other (please specify) ☐	
23	Do you have children		Yes ☐		No (if no, proceed to q24) ☐	
23a	Do you have children living outside the home?					
	Yes, with relatives ☐	Yes, in school ☐	Yes, in their marital home ☐	Yes, other (please specify) ☐	No ☐	
23b	Are all your children enrolled in school?		Yes ☐		No ☐	
23c	Are there periods of the year when children do not attend school? (aside from school holidays)		Yes ☐		No (if no, proceed to q24) ☐	
23d	If yes, please state why?					
	To provide agricultural help ☐	To provide household help ☐	Illness ☐	No teachers at school ☐	Other (please specify) ☐	
24	How many people in total are living in your home? (please state any other people residing other than children)					

1.5 Employment

25	What is your main source of livelihood?							
	Farming ☐	Formal work ☐	Fishing ☐	Artisan ☐	Remittances ☐	Ganyu ☐	Business (specify) ☐	Other (specify) ☐
26	Have you carried out any work (other than in your own home or land) in the last seven days? (if yes, proceed to q26b)							
	Yes, formal (paid) work (please state) ☐		Yes, ganyu ☐		Yes, other informal work (please state) ☐		No (if no, please answer q26a) ☐	
26a	If no, have you worked in the last 12 months? (if yes, proceed to q26b)							
	Yes, formal (paid) work (please state) ☐		Yes, ganyu ☐		Yes, other informal work (please state) ☐		No (if no, please answer q27) ☐	
26b	Do you generally carry out this activity throughout the year, or do you work seasonally or only once in a while?							
	Throughout the year ☐		Seasonal/Part of the year ☐		Once in a while ☐			
26c	How are you usually paid for this work?							
	In cash ☐		In kind ☐		In cash and in kind ☐		Not paid ☐	
27	What is your level of income per month? (in MKW)							
	Less than 1000 ☐	1000-5000 ☐	6000-10000 ☐	11000-15000 ☐	16000-20000 ☐	20000+ ☐		
28	Does anyone else in your household work (other than in your own home or land)?				Yes ☐ No (if no, proceed to q29) ☐			
28a	If yes, who?							
28b	If yes, what kind of work?							
	Formal (paid) work (please state) ☐		Ganyu ☐			Other informal work (please state) ☐		
28c	How are they paid for this work?							
	In cash ☐		In kind ☐		In cash and in kind ☐		Not paid ☐	
28d	Would you say the money you earn is more than what your partner (husband/wife), less than or about the same? (Only applicable if participant works outside cultivating land)							
	Not applicable ☐		More than ☐		Less than ☐		About the same ☐ Partner doesn't work ☐ Don't know ☐	

2. Agriculture

29	What are the main crops you grow? (please tick appropriately)											
	Local maize ☐	Hybrid maize ☐	G'nut ☐	Pigeon peas ☐	Beans ☐	Sorghum ☐	Soya ☐	Rice ☐	Tobacco ☐	S. potato ☐	Irish potato ☐	Veg ☐
30	Do you intercrop?				Yes ☐ No ☐							
31	Do you use fertiliser?											
	Yes, always ☐		Yes, occasionally ☐		Rarely ☐		No (if no, proceed to q32) ☐					
31a	If yes do you buy fertiliser or use organic (compost) fertiliser?								Bought ☐		Organic ☐	
32	Do you have access to irrigation?				Yes ☐ No (if no, proceed to q33) ☐							
32a	If yes, does this irrigation system always work?											
	Yes, always ☐		Yes, occasionally ☐		Rarely ☐							
33	If yes, can you grow crops all year round?				Yes ☐ No ☐							
34	How would you rate your harvest crop yield this year?											
	No crops yield ☐		Less than average ☐		Average ☐		Better than average ☐					
34a	Can you estimate your crop yield this year?											
34	How does this compare to last year?											
	Worse ☐				Much the same ☐				Better ☐			

3. Household Responsibility

35	Who in the house is responsible for the following household and agricultural chores (list household member below each activity)?
	Household activities

Collecting water	Collecting firewood/thatching	Cooking	Looking after children/elderly/sick	Maintaining household			
Agricultural activities							
Maintaining vegetable/kitchen garden	Land prep (ploughing)	Deciding what crops to grow	Planting	Weeding	Applying fertiliser (if used)	Harvesting	Crop storage
36	Do you sell crops at the market?						
	Yes, always ☐		Yes, occasionally ☐		No, never ☐ if no, proceed to the next section		
36a	If yes, who decides what produce to sell?						
	You ☐	Partner (Husband/wife) ☐	Jointly ☐	Depends on produce sold ☐ (please elaborate)		Other ☐ (please specify)	
36b	Who brings produce to the market?						
	You ☐	Partner (Husband/wife) ☐	Jointly ☐		Other ☐ (please specify)		
36c	What produce do you usually sell at the market?						
36d	Who decides how profit from market is spent?						
	You ☐	Partner (Husband/wife) ☐	Jointly ☐	Depends on produce sold ☐ (please elaborate)		Other ☐ (please specify)	

4. Decision-making & social capital

37	Who makes decisions about daily expenses (food, fuel)?			
	You ☐	Partner (Husband/wife) ☐	Jointly ☐	Other ☐ (please specify)
38	Who makes decisions about healthcare?			
	You ☐	Partner (Husband/wife) ☐	Jointly ☐	Other ☐ (please specify)
39	Who usually decides about making major household purchases (buying assets or changes to the home)?			
	You ☐	Partner (Husband/wife) ☐	Jointly ☐	Other ☐ (please specify)
40	Who makes decisions on agricultural purchases (e.g. fertiliser, seed, new tools, participating in irrigation schemes, other inputs)?			
	You ☐	Partner (Husband/wife) ☐	Jointly ☐	Other ☐ (please specify)
41	Are you or any member of your household members of any groups or associations? (e.g. farmers orgs, church groups, saving schemes)		Yes ☐	No/Don't know ☐ (go to q40)
41a	If yes, please answer the following questions regarding participation Please list your households involvement in community groups/organizations and their level of involvement (starting with the most important group to household)			

Household member	Name of organisation	Type of organisation (use codes below)	Degree of participation (use codes below)
Type of organisation Farmers/fisherman's group 1 NGO 10 Cooperative 2 Religious group 11 Traders/business group 3 Cultural association 12 Political group 13			

Professional association	4	Youth group	14
		Women's group	15
Trade union	5	Parent group	16
Credit/finance group	6	School committee	17
Water/waste group	7	Health committee	18
Village association	8	Sports group	19
Civic group	9	Other	20

Degree of participation	Leader	1	Very active	2	Somewhat active	3	Not active	4
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41b	Generally, are the same community members usually active within groups?							
	Yes there is much overlap ☐		Yes, there is some overlap ☐		No, there is very little overlap of members ☐			
41c	Generally, how do groups usually make decisions?							
	The leader decides and informs group ☐		The leader asks group what they think and then decides ☐		Group members discuss and decide together ☐		Other (please specify) ☐	
41d	Do you think that being a member of these groups you have acquired new skills? Yes ☐ No ☐ Don't know ☐							
42	If there were a village wide problem (such as flooding, drought, crop failure), how would this problem be dealt with?							
	At household level ☐		Between neighbours ☐		By local gov. / municipal ☐		By all community leaders ☐	
	At village level ☐		Other (please specify) ☐					
42a	In the past year, how often have you joined together with village/neighbourhood to address a common issue (e.g. during food shortages, flooding, crop failure)?							
	Never ☐ (go to 40c)		Once ☐		A couple of times ☐		Frequently ☐	
42b	What this successful (did you see positive outcomes from this collective action)? Yes ☐ No ☐							
42c	In the past year, how often have members of this village gotten together and petitioned local government with their village development needs (e.g. to improve infrastructure, to resettle displaced communities, for community facilities)?							
	Never ☐ (go to 41)		Once ☐		A couple of times ☐		Frequently ☐	
42d	What this successful (did you see positive outcomes from this collective action)? Yes ☐ No ☐							
43	To what extent are the following people influential to the lives and livelihood of your community? (Use ranking codes below)							
	Government	Chiefs	Politicians	Family members	NGO	Neighbours	Church Pastor	Other (specify)
	Not at all: 1		A bit: 2		Moderately: 3		Significantly: 4	
							Very much: 5	
43a	Who, out of the above, has the most influence?							
44	Do you feel you are well thought of (respected) within the community? Yes, highly ☐ Yes, somewhat ☐ No ☐ Unsure/Don't know ☐							
45	Do you think you have an influence in decision-making at community level?							
	Yes, a strong influence ☐		Yes, somewhat of an influence ☐		No influence ☐		Unsure/Don't know ☐	
45a	Do community members ever come to you for advice?							
	Yes, often ☐		Yes, occasionally ☐		Rarely ☐		No, never(proceed to q46) ☐	
45b	If yes, what advice they come to you for?							

5. Risks & Hazards

46	Which of the following are challenges that affect you in your daily life? Pick the main two					
	Access to social services ☐	Drought ☐	Floods ☐	Hunger ☐	Disease (human) ☐	Disease (crop) ☐
	Poverty ☐	Unreliable rains ☐	Other (specify) ☐			
46a	From the two main challenges, please answer the following questions (using ranking codes below)					

	Challenge (from top 2)	Rank level of risk	How often does this occur?	Have the challenge changed over time (Y/N)	Who in the home is most affected?
1.					
2.					
RANKING CODES					
Level of risk			Frequency of occurrence		
High: 1 Medium: 2 Low: 3			Regularly: 4 Occasionally: 5 Rarely: 6 Never: 7		

6. Weather and Climate change

47	Is the climate changing according to evidence in your area? Yes ☐ No ☐ (proceed to q48) Don't know ☐					
47a	If yes, what evidence is there that climate is changing in your community?					
	Change in onset of rains ☐	Change in cessation of rains ☐	Increase in disaster occurrence ☐	Erratic rainfall ☐	Change in temperature ☐	Other (specify) ☐
47b	If yes, how do you feel about the changes you've experienced? (tick up to 3)					
	Fearful ☐	Excited ☐	Sad ☐	Happy ☐	Nothing ☐	
	Confused ☐	Powerless ☐	Angry ☐	Hopeful ☐	Other (specify) ☐	
48	Which of the following do you consider as the main effect of climate variability and change experienced in your community?					
	Flooding ☐	Dry spells/drought ☐	Stormy rains ☐	Disease outbreak ☐	Other (specify) ☐	
49	What is the major disaster that affects your area?					
	Hailstorm ☐	Dry spell/ drought ☐	Strong winds ☐	Floods ☐	Earthquake ☐	Disease outbreak ☐
50	Who gave you information on climate change?					
	NGO ☐	Local organisations ☐	Local government ☐	News/radio ☐	Community members ☐	Other (specify) ☐
51	What do you think causes climate change?					
	Industry ☐	Burning fuels ☐	Deforestation ☐	Agriculture ☐	Transportation ☐	Other (specify) ☐
52	Is a difference between climate change and weather events? Yes ☐ No ☐ Don't know ☐ (if no/don't know, go to q53)					
52a	If yes, what is the difference?					
53	To what extent do you consider climate variability and change a threat to your lives and livelihoods?					
	Not at all ☐	A bit ☐	Moderately ☐	Significantly ☐	Very much ☐	
54	Are some community members more affected than others? (if no, go to q55) Yes ☐ No ☐ Don't know ☐					
54a	If yes, who do you think out of the following groups are more affected?					
	Tick appropriate		How/Why are they more affected?		Why do you think this is?	
	Men					
	Women					
	Boy (child)					
	Girl (child)					
	The elderly					
	The ill/sick					
	Minority groups					
55	In January 2015, your area was affected by floods to what extent do you agree or disagree with the following statements? (use ranking codes below)					
	The floods were as a result of climate variability and change					
	The floods were as a result of acts of God					
	The floods were as a result of some magicians					
	The floods were as a result of angry spirits					
	The floods were as a result of human activity					
	The floods were the worst witnessed in my life					
55a	This year, your area has been affected by drought to what extent do you agree or disagree with the following statements? (use ranking codes below)					
	The drought was as a result of climate variability and change					

Appendix D – Research ethical application

SNS REC Project Reference Number(to be completed by REC):

Research Ethics Application **School of Natural Sciences, Trinity College Dublin**

Section 1: Applicant Details

Name (Student/lead researcher)	Jane Maher
Staff/Student Number	11265234
Applicant E-mail Address	maherj8@tcd.ie
Name(s) of Additional Researcher(s) (collaborators, third parties involved in the research if applicable)	N/A
Name of Supervisor (for students)	Professor Anna Davies Assistant Professor Susan Murphy
Supervisor E-mail Address (Please ensure this is correct. The REC's decision will be copied to this address)	daviesa@tcd.ie susan.p.murphy@tcd.ie
What School/Discipline are you affiliated to?	School of Natural Science / Geography Department
Title of Project	<i>Examining gender mainstreaming in climate change adaptation policies and implementation in Malawi.</i>
Highlight the category that best describes the research	Undergraduate project Taught MSc project Full-time postgraduate research project Staff research project
Has this application been submitted to another TCD Ethics Committee for approval¹¹? If so, which, and what was the outcome?	No
Has ethical approval for this project been sought from outside TCD? What was the outcome? Provide back-up documents where applicable.If ethical approval has been granted	No

¹¹ All research involving animals (vertebrates) must be approved by the Animal Research Ethics Committee

from another body, approval from SNS REC may be fast-tracked.

Section 2: Initial Research Ethics Checklist

DOES YOUR RESEARCH PROJECT FALL CLEARLY UNDER ANY OF THE FOLLOWING CATEGORIES?

	YES	NO
1. Quality assurance study (e.g. assessment of teaching practice) ¹²		✓
2. Audits of standard practice (not involving identifiable records) ²		✓
3. Research on publically available information, documents or data		✓

If you have answered YES to one or more of the above questions, your research project can proceed without the need for ethical approval from the School Research Ethics Committee (REC). Please be aware that all researchers have a responsibility to follow TCD's Policy on Good Research Practice, (available [here](#)) as well as any academic or professional code of practice or guidelines relevant to the specific research project. Even if you answer YES to one of the above question, **please return a signed (Section 5) copy of this form to the Chair of the SNS REC** as a record must be kept of all projects.

If you have answered NO to all of the above questions, proceed to Section 3 to determine whether your application is suitable for consideration for the School REC or if the application needs to be evaluated by a Level 2 committee.

¹²Quality assurance and audit studies do not routinely require ethical approval. However, if following the study there is scope to publish the findings of a study an REC may grant a letter of approval if required.

Section 3: Checklist for School REC suitability

This checklist needs to be completed in order to determine whether your application is considered “low risk” and is therefore suitable for consideration by the School REC¹³.

Please indicate if your application falls into any of the categories below (categories from TCD “Criteria for Research Ethics Committees” [document](#), Jan 2014):

	YES	NO
1. Surveys asking questions of a sensitive or private nature		✓
2. Questionnaires or observational studies involving children or vulnerable adults.		✓
3. Research where there is a risk of a participant feeling undue pressure to participate by virtue of his/her relationship with the researcher (e.g. student/supervisor; patient/clinician).		✓
4. Projects involving a justifiable degree of deception.		✓
5. Analysis of archival irrevocably anonymised human tissue samples for which consent for research was not originally given, and was not acquired in the course of clinical treatment. (Archived samples taken for a previous research study must always get new ethical approval).		✓
6. Research involving invasive procedures (other than those listed above).		✓
7. Research involving vulnerable persons ¹⁴ .		✓
8. Research where identifiable information obtained may have legal, economic or social consequences for research subjects.		✓
9. Research that may identify illegal activity on the part of the participant.		✓
10. Projects where each subject is paid (over and above token gestures).		✓
11. Research that may potentially endanger ¹⁵ the subjects, and/or researchers, and/or 3 rd parties, and/or the environment. See note below.		✓

¹³In situations where research ethics approval has been granted by an appropriate body outside TCD, approval must also be sought from an appropriate TCD REC, although, at the discretion of the REC chair, the submission may qualify for fast-tracked approval.

¹⁴Vulnerable persons: Certain individuals who face excessive risk of being enrolled in research include those with limitations in their ability to provide informed consent to research because of factors such as immaturity or cognitive impairment. Vulnerability can also stem from individuals' relationships with others, and it is imperative that coercive situations are avoided. Such cases may occur when an employee/student/dependent is asked to participate in research being conducted by a supervisor/mentor. Additional social factors, such as poverty and lack of access to health care, can also make individuals vulnerable to coercion, exploitation or other risks and need to be considered in reviewing applications. (From “[Criteria for Research Ethics Committees](#)”.)

¹⁵Relevant Health and Safety Risk Assessment forms must be completed before work can be undertaken.

12. Research involving the collection of human tissue.		✓
13. Research that may have a direct military role.		✓
14. Potentially harmful research involving humans conducted outside Ireland ¹⁶ .		✓
15. Research involving psychological intervention.		✓

Note regarding category 11:

Please answer NO to this category if you have official approval from an outside body (see note below) or if work will be designed specifically to minimize the chances of potentially endangering people and/or the environment. Details can be given in the Ethical Approval Application Form overleaf.

Official Approval: Research involving the use of elements that may cause harm to the environment, to invertebrate animals or plants; or deal with endangered fauna and/or flora and/or protected areas; or involve the use of elements that may cause harm to humans, including research staff; may need approval by outside body, and formal approval for the research (e.g. from the relevant Government Department) must be attached to this application. If formal approval for the work has been granted please give details in the box below:

Approval for work granted by:	<i>Give Government Department or relevant authority who has granted approval</i>
Details of research:	<i>Describe how work may potentially endanger environment and how this will be minimised</i>

If you have answered YES to any of the above questions, then the application is deemed to be of moderate or high risk (*i.e. risk or discomfort is greater than that usually encountered during normal daily life*) and should be submitted to an appropriate Level 2 Ethics Committee. The applicant should download the application and procedures for the appropriate REC (e.g. a suitable Level 2 School Committee in College, the Faculty of Engineering, Mathematics and Science REC, or the Animal REC). If necessary, the Chair of the School REC can assist with identifying the appropriate REC.

If you have not answered YES to any question in Section 3, your application can be submitted for consideration by the SNS REC after completion of Section 4.

¹⁶Does not apply to material publically available in another jurisdiction. Note that the same ethical standards will apply to research carried out by SNS researchers within and outside of Ireland. Work must comply with legal requirements of the State in which it is carried out.

Section 4: Ethical Approval Application Form for School of Natural Sciences Level 1 REC

All student applications should be reviewed and approved by the project supervisor prior to submission.

Project Description

Title of research project	<i>Examining gender mainstreaming in climate change adaptation policies and their implementation in Malawi</i>
Start date of research project	September 2014
End date of research project	August 2018
Project outline	
<i>Provide brief outline of the project (maximum 200 words): must include rationale for research, main objectives, data collection methods (including sampling methods, how sites/samples will be selected, sample size etc.). If the research involves human participants, give details of the population to be studied, sampling procedures, incentives/compensation to be offered to participants, recruitment process, and provide sample informed consent forms (see appendix 4).</i> Gender equality as a key element of climate justice has been powerfully stated by increasing numbers of advocacy actors. Within these, women are often described as more vulnerable than men to the impacts of climate change, but are rarely involved in developing adaptation and sustainable technologies. In addition, men and women experience the impacts of climate change differently, hence addressing gender in adaptation policy is essential. In recent years there has been a bid to gender mainstream climate change policy. To understand this, my research explicitly investigates how gender is addressed in agricultural productivity (AP) and food security (FS) adaptation policies at the international level and specifically, whether the flow and implementation of climate finance for adaptation in Malawi - a highly climate vulnerable nation - exhibits gender-sensitive dimensions. At international and national level climate adaptation policy will be reviewed and Climate Finance for Adaptation (CFfA) will be analysed using online databases such as AidData and OECD-CRS. For local level analysis a case study will take place in Malawi. A case-control study design will be used to collect data in the field. The study population is defined as vulnerable villages that are recipients of CFfA. The control group is defined as vulnerable villages that are not recipients of formal CFfA. Village selection will be carried out by sub-national analysis of CFfA flows and discussions with the District Development Officers, who direct finance flows to local level. Village matching will categorise and associate study and control villages based on a number of physical and socioeconomic indicators, such as: climate vulnerability, poverty, livestock ownership, education, medical, water and electricity access. Such matching will allow for comparison of CFfA lessening climate risk by increasing probabilistic equivalence and reducing bias. Data will be collected by focus groups, semi-structured interviews, and questionnaire indicators. The sample size will be determined based on the district size. As research will carry out mixed methods for data collection, the sample size will be determined by the minimum size necessary for minimal statistical analysis. A sample size calculator will be used with the defined confidence level of 95% and the confidence interval of $\pm 5\%$.	

The project and what is required of participants will be explained in full before any data is collected. Consent must be acquired from participants prior to commencing. Written consent will be obtained where determined acceptable. However, it is most likely that oral consent will be obtained during field work in Malawi because written consent may be insensitive in areas of high illiteracy. Where oral consent is acquired, a witness will be present and their signature will be recorded.

Potential ethical issues

Are there ethical issues or problems which may arise with the proposed study, and what steps will be taken to address these? Are there potentially adverse outcomes to the environment (e.g. destruction of individuals, populations, habitats, physical structures)? Will the environment be altered by the experiment (e.g. through alteration of biological, geological or chemical systems)?

Many ethical issues will arise, as with all human based studies, during the course of this research project. This research will be carried out in accordance with TCD's over-arching aims of ethical research principles: Respect for the individual subject or population; Beneficence and absence of maleficence; and Justice.

Every effort will be made in the project planning, implementation and dissemination to ensure these principles are maintained. Ethical research in developing countries must be rigorous and thorough in order to minimise inequalities, social and cultural differences. It is imperative that research is explained in a clear and accessible format for potential participants, to ensure an independent and informed decision on whether to participate. Furthermore, it is essential that during my fieldwork I adhere to social and cultural norms of the area.

Gender is an extremely complex and sensitive matter to study. During field work, a fundamental ethical consideration is how to undertake researching this topic in Malawi, a country where sex and gender is steeped in historical and cultural traditions. It is vital that both male and female participants are comfortable, every effort will be made to ensure this. It is likely that throughout field work I will require a male and female facilitator to assist with translations. Research assistants acting as facilitators for field work will be recruited through the University of Malawi and will be reimbursed in accordance with the university guidelines for research assistants.

Ethical clearance at national level in Malawi from the National Committee on Research in the Social Science and Humanities will be given prior to field work. In addition to this, connections will be made with the University of Malawi, the Centre for Social Science and the Gender Studies unit. This will be done to ensure research is carried out in accordance with standards of universities in Malawi.

A condition of government ethical approval is providing a final copy of the report to the approval committee. This will be done as part of dissemination at national and local level in Malawi. In addition, the policy brief developed will be distributed to relevant government bodies in Malawi and research findings will be disseminated to participants through Concern Universal and field facilitators used during data collection.

Ethical considerations, reducing potential risks and mitigating impacts
<i>Where potential risks to participants or the environment may be present, explain any steps that will be taken to mitigate against and minimize these and any additional support services that might be used should the need arise.</i> There are no apparent risks for participants during this study. However every effort will be made to ensure that participants are happy, comfortable and fully informed throughout their participation. This will be done through a warm introduction to researchers and the project; a full discussion on consent and ensuring participants are aware they can quit at any point and they're data will not be used in analysis. It is only after this full discussion that consent forms signed by all participants. During field work in Malawi, there is high probability that some participants may be illiterate and will be unable to sign their consent. In this case, a witness will need to be present at discussions of consent, the participant will verbally agree to their participation and the witness will be required to sign in place of the participant. Furthermore, focus groups involve interaction and discussion with community members a few precautions will be carried out to allow for open and honest discussion. Firstly, focus groups will take place in private with only participants and researchers present. Village leaders and other authoritative figures will be asked not to attend or to remain outside for the duration of focus group discussions. Secondly, although focus groups will not discuss very personal issues, all efforts will be made to ensure anonymity and confidentiality. At the beginning of each focus group the project will be introduced in full and each participant will be asked to fill in a consent form. In addition to the researcher ensuring anonymity at project level, group confidentiality will be discussed. All participants of the focus group will be encouraged to keep information shared among the group and respect confidentiality. Finally, although English is the official language in Malawi much of the rural population speak the native tongue Chichewa only. For this reason research assistants will be required to help with communication in the field. All consent forms and questionnaires will be translated to Chichewa and back to English to ensure true translation. This will be carried out by two research assistants independently to confirm consistency. During focus groups research assistants will take the lead for efficiency and comfort of participants. I will monitor and time keep the focus groups to ensure all activities and areas of discussion have been covered in the timeframe. Focus groups will be recorded by dictaphone, transcribed by research assistants and discussed at length afterwards.
Data storage
<i>Provide an explanation of any measures that will be put in place to preserve confidentiality and anonymity of human participants, including an explicit explanation of secure data storage and disposal plans. Provide details of where data will be stored at the end of the project. Note that there may be a need to store data for a period after completion of the project.</i> Data collection from interviews, focus groups and questionnaires will be anonymous and participants will be assured of this from the outset. Anonymity for questionnaire participants will be maintain through recording a code associated with date and district, rather than a record of participant's name. For focus groups ensuring anonymity is more difficult, as for a focus group to be successful participants need to share and discuss topics together. Every effort will be made to

discussion confidentiality with all focus group participants, in order to ensure a safe space for open discussion that will be maintained within the group alone.

Although names and personal details will not be recorded on original format or electronic database. Every effort will be made to ensure the limited sharing of these documents. Original hard copies of questionnaires will be stored in a lockable file box. Data will be input into an electronic database to be stored on two encrypted devices that require a username and password to be opened. This is firstly to respect the information provided by participants, and secondly to ensure the integrity of data collected is not compromised.

In accordance with the TCD's Policy on Good Research Practice data will be stored in its original format and on an electronic database for a period of 10 years, in compliance with. Electronic data will be back up regularly to ensure its safety and accessibility. After the advised 10 year period, hardcopy data will be shredded and recycled; and electronic data bases will be wiped.

Published ethical guidelines to be followed

Identify professional code(s) of practice and/or ethical guidelines relevant to the research.

As this research involves different methods of data collection and analysis there are different professional codes of conduct relevant to the research and should be adhered to.

Firstly, is the American Association for Public Opinion Research (AAPOR), an interdisciplinary research association in social science. AAPOR's goal is to support sound and ethical research in policy and decision-making in the public and private sector. The research will work within the guidelines of "*The Code of Professional Ethics and Practices (Revised 2015)*", which states that research should maintain the highest standards of scientific competence, integrity, accountability and transparency in design, conduct, analysis and dissemination.

AAPOR guidelines available at:

https://www.aapor.org/AAPORKentico/AAPOR_Main/media/Code-of-Ethics-Changes/AAPOR-Code-Final-Council-Approved-Language_May-11-2015.pdf

Secondly, the Academy of Social Science is the UK's national academy of academics and practitioners in social science including the Development Studies Association and the Royal Geographical Society. In March 2015 the Academy formally adopted five fundamental ethical principles for social science. The principles, that will be adhered to, are as follows – All social science:

1. Is fundamental to a democratic society and should be inclusive of different interests, values, funders, methods and perspectives;
2. Should respect the privacy, autonomy, diversity, values, and dignity of individuals, groups and communities;
3. Should be conducted with integrity throughout, employing the most appropriate methods for the research purpose;
4. Researchers should act with regard to their social responsibilities in conducting and disseminating their research;
5. Should aim to maximise benefit and minimise harm.

ACSS principles available at:

<https://acss.org.uk/wp-content/uploads/2015/05/Adopted-Generic-Ethical-Principles-with-AcSS-Logo1.pdf>

Thirdly, OECD have produced a code of conduct to promote ethical and professional public service for development practitioners and provides codes of conduct and a set of good practice guidelines. It aims to provide information on what codes are, how they are used internationally, what are the best uses and limitations of codes and how they can be used in international development.

OECD code of conduct available at:

<http://www.oecd.org/mena/governance/35521418.pdf>

The final professional ethical guidelines that this research will adhere to are those of the National Women's Studies Association (NWSA), whose main objective is to promote and support the production and dissemination of knowledge about women and gender through teaching, research and services in academia and other settings. The NWSA have a code of ethics, adopted in 2005 that contains: general provisions such as: Transparency, openness, and disclosure; and specific ethical standards such as: non-discrimination, sexual harassment, non-exploitation.

NWSA code of ethics available at:

<http://www.nwsa.org/content.asp?contentid=46>

Section 5: Declaration

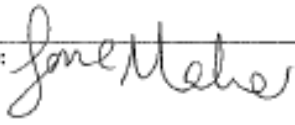
Signature of applicant <i>I declare that the information given herein is accurate. I have read the TCD Ethics Policy and will follow the guidelines therein. I have read and understood the TCD Data Protection Policy.</i>	Signature: Date:
Signature of Supervisor (in case of students) <i>I declare that the information given herein is accurate. I have read the Ethics Policy and will follow the guidelines therein.</i>	Signature: Date:

To be completed following REC review:

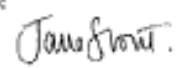
Approval by the School's Ethics Committee <i>The School's Ethics Committee confirms that this project has been approved</i>	Sign/Stamp: Date:
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Appendix D (i) – Research ethical approval

Section 5: Declaration

Signature of applicant <i>I declare that the information given herein is accurate, I have read the TCD Ethics Policy and will follow the guidelines therein. I have read and understood the <u>TCD Data Protection Policy</u>.</i>	Signature:  Date: 14/08/15
Signature of Supervisor (in case of students) <i>I declare that the information given herein is accurate. I have read the Ethics Policy and will follow the guidelines therein.</i>	Signature:  Date: 14/8/15

To be completed following REC review:

Approval by the School's Ethics Committee <i>The School's Ethics Committee confirms that this project has been approved</i>	Sign/Stamp:  Date: 18.08.2015
---	---



Trinity College Dublin
Coláiste na Tríonóide, Baile Átha Cliath
The University of Dublin

Jane Maher
Geography Department
Natural Science
Dublin

School of
Trinity College

Re: School of Natural Science Ethical Approval

Project title: *Examining gender mainstreaming in climate change adaptation policy and implementation in Malawi*

Principal Researcher: Jane Maher

Email: maherj8@tcd.ie

Supervisor: Professor Anna Davies & Assistant Professor Susan Murphy

SNS REC Reference Number: 2015-02

Approval Date: 18/08/2015

Approval Expiry Date: 30/09/2018

Dear Jane

Thank you for submitting the above research project for ethical review by the School of Natural Science Ethics Committee. This project was submitted on the August 14, 2015 for the consideration of the committee.

I am pleased to advise you that the committee has granted ethical approval of this research project. Approval of this project is subject to a number of conditions:

- Continued compliance with Trinity College Dublin 'Policy on Good Research Practice';
- Submission of an annual report regarding any changes which may have a bearing on ethical considerations;
- Notification to committee if any changes in timelines (discontinuation or extension) occur;
- Submission of end of project report upon completion of the study
(Templates available at: www.tcd.ie/naturalsciences/research/ethics/).

The SNS ethics committee wishes you every success in your research

Yours faithfully,

Dr. Jane Stout
Chairperson of the School of Natural Sciences Ethics Committee
[Trinity College Dublin, the University of Dublin](http://www.tcd.ie)
Dublin 2, Ireland.

Participant Information Form

School of Natural Sciences, Trinity College Dublin

Examining gender mainstreaming in climate change adaptation policies and implementation in Malawi

Jane Maher, PhD Candidate, Geography Department, Trinity College Dublin

Funded by the Irish Research Council

Introduction:

This research is assessing how gender is addressed in climate finance related to agricultural productivity and food security adaptation policies and their implementation in Malawi. The main research questions this research will answer are:

1. To what extent do gender considerations in international policy influence gender mainstreaming in CCA policies at national scale in Malawi?
2. How is CCA distributed at subnational scale influenced by gender mainstreaming in the Lower Shire Valley, Malawi?
3. Are there differentiated experiences of climate change (based on gender, age and other social identifiers) in the Lower Shire Valley?
4. How do different groups (based on gender, age and other social identifiers) in the Lower Shire Valley access CCA?

Data will be collected through documentary analysis, interviews, focus groups and climate/gender vulnerability indicators. International and national key stakeholders participants will be asked to take place in a audio recorded interview. Local level participants may be asked to participate in a climate/gender vulnerability indicator questionnaire and/or a focus group. The time span of participation varies dependent on activity. It is assumed that key stakeholder interviews and questionnaires will take no longer than one hour to complete. While focus groups, depending on interaction, may take up to two hours.

Procedures:

Key stakeholders are selected to participate based on their role in policy formation, implementation, or social movements for gender mainstreaming in climate policy. It is planned that 20 in-depth interviews will be carried out at international (10) and national (10) level. Interviews will be scheduled for one hour.

Participants of the case study in Malawi are selected with respect to formal climate finance for adaptation flows to their community. It is planned that three districts will be studied and within each 30 questionnaires, taking up to one hour; and 10 focus groups with five in the study and five in the control population. At least one hour will be designated for each focus group.

5. Benefits: The benefits of this study are wide reaching in academia, policy and public forums. This research will address the gaps in knowledge academic literature and provide concrete evidence to progress the understanding of gender and climate change. This research will inform future policy for greater gender inclusion in climate change and sustainable development of climate vulnerable societies.

6. Risks: This study has limited to no risk to the participants.

7. Exclusion from participation: This research excludes children and those under the age of 18.

8. Confidentiality: Your identity will remain confidential. Your name will not be published and will not be disclosed to anyone outside the study.

9. Voluntary Participation: You have volunteered to participate in this study. You may quit at any time. If you decide not to participate, or if you quit, you will not be penalised and will not give up any benefits which you had before entering the study.

10. Reimbursements: No reimbursements will be provided for participation in this study.

11. Stopping the study: You understand that the researcher may stop your participation in the study at any time without your consent.

12. Permission: This study has approval from the School of Natural Science Research Ethics Committee in Trinity College Dublin. In addition to approval from NCRSH, the national ethics committee, in Malawi has been sought.

13. Sharing the results: The results of this research will be shared with the participants and communities before publication. Results will be distributed to key stakeholders via email. Local level participants will be informed of results by research assistances and local NGOs.

14. Further information: *You can get more information or answers to your questions about the study, your participation in the study, and your rights, from Jane Maher who can be telephoned at 00353857251948.*

Informed Consent Form

School of Natural Sciences, Trinity College Dublin

Title of research study: Examining gender mainstreaming in climate change adaptation policies and implementation in Malawi.

This study and this consent form have been explained to me. I believe I understand what will happen if I agree to be part of this study.

I have read, or had read to me, this consent form. I have had the opportunity to ask questions and all my questions have been answered to my satisfaction. I freely and voluntarily agree to be part of this research study, though without prejudice to my legal and ethical rights. I have received a copy of this agreement and I understand that, if there is a sponsoring company, a signed copy will be sent to that sponsor.

Name of sponsor:

PARTICIPANT'S NAME:

PARTICIPANT'S SIGNATURE:

Date:

Date on which the participant was first furnished with this form:

Participants with literacy difficulties:

I have witnessed the accurate reading of the consent form to the potential participant, and the individual has had the opportunity to ask questions. I confirm that the individual has given consent freely and understands that they have the right to refuse or withdraw from the study at any time.

Print name of witness: _____

Signature of witness: _____

Date (Day/month/year) _____

Thumbprint of participant:

Statement of investigator's responsibility: I have explained the nature, purpose, procedures, benefits, risks of, or alternatives to, this research study. I have offered to answer any questions and fully answered such questions. I believe that the participant understands my explanation and has freely given informed consent.

Researcher's signature:

Date:

(Keep the original of this form in the project records, give one copy to the participant, and send one copy to the sponsor (if there is a sponsor).)

Appendix E (i) – Consent forms (translated to Chichewa)

Fomu ya ndondomeko ya wokhudzidwa

School of natural sciences, Trinity college Dublin

Kuunika ntchito yokhudzana ndikuti pasamakhale kusiyana pakati pa amayi ndi abambo molumikizana ndi ntchito yomvana ndikusitha kwa nyengo komanso kagwilidwe kake ka ntchito muno m'Malawi.

Jane Maher, PhD Candidate, Geography Department, Trinity College Dublin

Mothandizidwa ndi Irish Research Council

Poyamba:

Kafukufukuyu akuyang'na za m'mene ntchito zowona kuti pasamakhale kusiyana pakati pa amayi ndi abambo zimalongosoleledwa mum'ndondomeko ya zachuma chothandizira ntchito yowona za kusintha kwa nyengo, pogwirizana ndi ulimi komanso ndondomeko yowona kuti padzikhala chakudya chokwanira ndi chikhazikitso chake muno m'Malawi. Mafunso enieni amene ayankhidwe mum'kafukufukuyu ndi:

1. Kodi ntchito zowona kuti pasamakhale kusiyana pakati pa amayi ndi abambo zimalongosoleledwa bwanji mu ndondomeko za CCA pamuyeso wa dzoko ndi mayiko onse?
2. Kodi ntchito zowona kuti pasamakhale kusiyana pakati pa amayi ndi abambo zimalongosoleledwa bwanji pokhudzana ndim'mene dongosolo la zachuma chothandizila ntchito yowona za nyengo limayendera kuchokera kwa othandiza (Donors) mu m'dera limeneli la CCA.
4. Kodi ntchito zowona kuti pasamakhale kusiyana pakati pa amayi ndi abambo zimalongosoleledwa bwanji pokhudzana ndim'mene chuma chothandizila ntchito yowona zanyengo chimayendera kupita kwa oyenera kulandira muno m'Malawi?
5. Kodi ndizotsatira zANJI zimene zawoneka mum'ntchito imeneyi yowona kuti pasamakhale kusiyana pakati pa amayi ndi abambo poganizira ntchito imene yagwiridwa yoyendetsa chuma chowona za nyengo cha CCA pa muyeso wa m'mamidzi?

Mfundo (Data) zidzatoleledwa pogwiritsa ntchito ma kanema owonetsa nkhani zenizeni (documentaries), mafunso amunthu m'modzim'modzi (interviews), magulu apaderadera (focus groups) komanso zinthu zina zimene zimaonetsa mavuto pa nkhani ya nyengo ndi ntchito zowona kuti pasamakhale kusiyana pakati pa amayi ndi abambo (climate/gender vulnerability indicators). Magulu akuluakulu okhudzidwa (key stakeholders) akunja komanso mum'dziko momwe muno adzafunsidwa mafunso omwe adzatepedwe. Anthu ena onse adzakhalanawo gawo lakafukufukuyu poyankha mafunso okhudzana ndi zinthu zina zimene zimaonetsa mavuto okhudzanso ndi kusintha kwa nyengo, (climate/gender vulnerability indicators) pa nkhani ya nyengo ndi ntchito zowona kuti pasamakhale kusiyana pakati pa amayi ndi abambo. Adzakhudzidwanso pokhala m'magulu okambilana apaderadera (focus groups). Nyengo imene kafukufukuyu adzitenga idzitengera m'tundu wa nkhani imene ikuunikidwa pa nthawi ina

iliyonse. Mafunso okhudzana ndi Magulu akuluakulu okhudzidwa (key stakeholders) akuganizilidwa kuti sadzitenga nthawi yopitilira ola limodzi kuti amalizidwe. Magulu apaderadera (focus groups) akuganizilidwa kuti akhoza kumafika ma ola awiri kuti amalize kutengera ndim'mene angamalumikizililane pazokambirana zawo.

Ndondomeko:

Magulu akuluakulu okhudzidwa (key stakeholders) amasankhidwa potsatira m'mene amatengera mbali popanga ndondomeko, pokhazikitsa ndondomekozi kapena apo m'mene amatengeranso mbali poyendetsa madongosolo a ndondomeko za ntchito zowona za nyengo. Pali chikonzero chakuti magulu amafunso (interviews) ozama 20 adzachitidwa pa muyeso wamayiko akunja (10) ndi muyeso wadziko lino lokha (10). Gulu lilonse lamafunso (interviews) lidzapatsidwa ola limodzi. Okhudzidwa ndikafukufukuyu kudzera munkhani zolembedwa zapaderadera (case studies) muno m'Malawi adzasankhidwa potsatira kayendedwe kadongosolo lachuma chogwirira ntchito yowona za nyengo chimene chikuyenera kupita m'madera awo. Pali chikonzero chakuti maboma atatu ndiamene akhudzidwe ndikafukufukuyu. Boma lilonse lidzakhala ndimaformu amafunso 30 oti ayankhidwe ndipo fomu iliyonse idzayenera kuyankhidwa ola limodzi. Padzakhalanso magulu apaderadera (focus groups) azokambirana okwana 10 omwe 5 adzakhale ndichidwi chakafukufukuyu pomwe 5 adzakhala ngati muyeso chabe (control) wa 5 ena enieniwo. Gulu lililonse lidzapatsidwa nthawi yokwana ola limodzi kapena kupitilirako apo.

5. Phindu: Phindu lakafukufukuyu ndilochuluka ndipo lakhudza gawo lazamaphunziro, ndondomeko, komanso ntchito zotukula dziko. Kafukufukuyu alongosola mphululu imene ilipo mu uthenga umene uli mu m'mabuku azamaphunziro ndikuperanso umboni weniweni kuti ntchito zokhudzana ndikumvetsetsa kusasiyana pakati pa amayi ndi abambo komanso kusintha kwanyengo zikapite patsogolo. Kafukufukuyu apereka uthenga wabwino kutsogolo ladziko lino kuti nkhani zokhudzana ndikusasiyana pakati pa amayi ndi abambo zikaphatikizidwe limodzi ndi nkhani zolimbana ndikusintha kwanyengo komanso mum'chitukuko chokhazikika mum'madera amene akhudzidwa ndi vuto lazanyengo.

6. Chiopsyezo: Kafukufukuyu alibe chiopsyezo chilichonse kwa okhudzidwa.

7. Osayenera kukhudzidwa nawo: kafukufukuyu sakuyenera kukhudza ana ndi onse adzaka dzosapyora

8. Chinsinsi: chinsinsi chakukhudzidwa kwanu mum'kafukufukuyu chidzasungidwa koponsa. Dzina lanu silidzasindikizidwa paliponse kapena kuwulilidwa kwa aliyense amene sakukhudzidwa nawo mum'kafukufukuyu.

9. Kukhudzidwa kongodzipereka: Mwadzipereka kuti mupange nawo kafukufukuyu. Muli ndiufulu osiya nthawi ina iliyonse. Mutasankha kuti musakhudzidwe kapena kufuna kusiya, simudzakhala pamulandu uliwonse, ndiponso simudzaluzza phindu lilonse limene munali nalo musanalowe mum'kafukufukuyu.

10. Kubwezera: Sipadzakhala kubwezera cholipira chilichonse popanga nawo kafukufukuyu.

11. Kusiya kupanga nawo kafukufukuyu: Oyang'anira kafukufukuyu alindikuthekera kokusiyitsani kutenga nawo mbali patchitoyi popanda inu kuvomeleza kuti zitero

12: chilolezo: Kafukufukuyu ali ndichilolezo molingana ndimalamulo a komiti yowona za kauniuni ku sukulu ya Natural science ku Trinity college Dublin. Powonjezera chilolezo chochokera ku NCRSH, komiti yowona za malamula azakauniuni muno m'Malawi inabvomelezanso.

13: Kugawana zotsatira: Zosatsatira za kafukufukuyu zidzagawidwa kaye kwa onse okhudzidwa mum'ntchitoyi ndimadera onse okhudzidwa zisadasindikizidwe. Zosatsatira zidzagawidanso kwa Magulu akuluakulu okhudzidwa (key stakeholders) kudzera munjira ya melo (email). Onse okhudzidwa m'mamidzi adzadziwitsidwa kudzera kwa othandizira kafukufukuyu komanso mabungwe omwe siaboma am'mamidzi.

14. Uthenga oonjezera: Mukhoza kupeza uthenga oonjezera kapena mayankho amafunso anu okhudzana ndikafukufukuyu, kukhudzidwa kwanu komanso ufulu wanu mum'ntchitoyi kuchokera kwa Jane Maher amene mukhoza kumuyimbira pa 00353857251948.

Mutu wakafukufukuyu: Kuunika ntchito yokhudzana ndikuti pasamakhale kusiyana pakati pa amayi ndi abambo molumikizana ndi ntchito yomvana ndikusitha kwa nyengo komanso chikhazitso chake muno m'Malawi.

Ndafotokozeledwa za kafukufukuyu komanso fomu ya chibvomelezoyi. Ndikukhulupilira kuti ndikumvetsetsa za zomwe zichitike ndikabvomeleza kutenga mbali mum'kafukufukuyu.

Ndawerenga, kapena andiwerengera fomu yachibvomelezoyi. Ndinali ndimwayi wonfunsa mafunso ndipo ndakhutitsidwa ndimayankho omwe ndalandira. Ndine omasuka ndipo ndalolera kutenga gawo mum'kafukufukuyu ngakhale kuti sakusamala za malamulo a chikhalidwe changa. Ndalandira kope la chibvomelezochi ndipo ndamvetsetsa kuti patakhala pali bungwe lothandiza, kope losayina lidzatumizidwa kubungweri.

Dzina la bungwe lothandiza:

DZINA LA OKHUDZIDWA:

SIGINETCHA YA OKHUDZIDWA:

Tsiku:

Tsiku limene okhudzidwa anaphunzitsidwa za fomuyi:

Kwa okhudzidwa omwe ali ndi vuto lamaphunziro:

Ndachitira umboni wamawerengedwe omveka bwino a fomu ya chibvomelezoyi kwa okhudzidwa wothekera. Ndipo munthu okhudzidwayo anali ndi mwayi onfunsa mafunso. Ndikutsimikiza kuti munthuyo wabvomeleza mosakakamizidwa ndipo wamvetsetsa kuti ali ndi ufulu kukana kapena kuleka osachita nawo kafukufukuyu nthawi ina iliyonse.

Lembani dzina la mboni: _____

Siginetcha / chidindo ya/cha mboni: _____

Tsiku (Tsiku/mwezi/chaka): _____

Chidindo cha chala cha okhudzidwa: _____

Mau kuchokera kwa opangitsa kafukufuku: Ndafotokoza mtundu, cholinga, ndondomeko, phindu, chiopsyezo ndi njira zina zoti zingatsatidwe mu'mkafukufukuyu. Ndinadzipereka kuyankha mafunso ndipo ndayankha mokwanira. Ndikukhulupilira kuti okhudzidwa amvetsetsa kafotozedwe kanga ndipo kuti abvomeleza mwa ufulu.

Siginetcha ya wopangitsa kafukufuku:

Tsiku:

(musunge kope lenileni la fomuyi mu'malekodi a ntchitoyi. kope ina ipite kwa okhudzidwa ndi ina kwa othandizira (sponsor) ntchitoyi ngati alipo.

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