The Gender Dimensions of Environmental Change

An Exploration of the Experiences and Perceptions of Rural Men and Women in Zimbabwe

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Abstract

Processes of environmental change have taken place for centuries both as a result of natural variability and anthropogenic forces. As a concept however, environmental change continues to be used narrowly to refer to environmental changes which are biophysical in nature, and mostly those with global precedence. In recent times incidences of environmental change have become more complex as new patterns of change are threatening the livelihoods of those living in developing countries, undoing many development gains. As such, there is an increasing desire to understand the implications of environmental changes, particularly for those whose livelihoods are natural resource dependent, many of whom live in rural areas, and many of whom are poor. Despite this growing interest, rural people and especially the rural poor are little seen or heard; their environmental change experiences are thus misunderstood, and solutions proposed do not take into consideration the local context or experiences. There remains also a normative perspective which positions women as automatically vulnerable to environmental change, specifically vis-à-vis men. In doing so women's experiences of environmental change are homogenised and men's experiences are rendered invisible.

Drawing on the case of Zimbabwe this study critically considers the experiences and perceptions of rural men and women to environmental change so as to ascertain gendered impacts and differential vulnerabilities. To capture fully the subjective lived experience of both men and women to environmental change, this study lends itself to qualitative research. Thus research methods such as semi-structured interviews, focus group discussions and gender analysis are central to the methodology.

In terms of findings, this study argues against looking at environmental change as a technocratic subject accessible only from a global frame and accessed only by a technocratic few, proposing that the people experiencing environmental change at a local level should determine the environmental changes of communal concern. This study also highlights the importance of understanding the vulnerabilities of rural men and women within a well-conceived notion of context, taking into account rural disadvantage resulting from colonialism, and the current Zimbabwean crisis.

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Acronyms

AEZ	Agro Ecological Zone
BMI	Body Mass Index
CAMPFIRE	Communal Areas Management Programme for Indigenous Resources
CF	Conservation Farming
COP	Conference of the Parties
CPU	Civil Protection Unit
CPR	Common Property Resource
EMA	Environmental Management Agency
ESAP	Economic Structural Adjustment Program
ENSO	El Nino Southern Oscillation
FGD	Focus Group Discussion
GAD	Gender and Development
GCM	Global Circulation Model
GDP	Gross Domestic Product
GEC	Global Environmental Change
GHG	greenhouse gas
GMB	Grain Marketing Board
GOZ	Government of Zimbabwe
HAF	Harvard Analytic Framework
IMF	International Monetary Fund
KII	Key informant interview
MDC	Movement for Democratic Change
MDG	Millennium Development Goal
MET Dept.	Meteorological Department
MT	metric tonnes
NEWU	National Early Warning Unit
NGO	Non-governmental organisation
NR	Natural Resource
NRM	Natural Resource Management
NSSA	National Social Security Authority
OVAC	Orphans and other vulnerable children
PRA	Participatory Rural Appraisal
RA	Research Assistant
SADC	Southern African Development Community
SAP	Structural Adjustment Program
SDG	Sustainable Development Goal
SDL	Sexual division of labour
SSI	Semi-structured interview
UNCED	United Nations Conference on Environment & Development
UDI	Unilateral Declaration of Independence
UNFCCC	United Nations Framework Convention on Climate Change
USAID	United States Agency for International Development
VIDCO	Village Development Committee

WAD	Women and Development
WCED	World Commission on Environment and Development
WED	Women, Environment and Development
WFP	World Food Program
WID	Women in Development
ZANU PF	Zimbabwe African Union – Patriotic Front
ZCTU	Zimbabwe Congress of Trade Unions
ZDERA	Zimbabwe Democracy and Economic Recovery Act
ZELA	Zimbabwe Environment Law Association
ZIMSTAT	Zimbabwe National Statistics Agency
ZWD	Zimbabwe Dollar

Chapter 1: Introduction

Let us never cease from thinking – what is this civilization in which we find ourselves? Where in short is it leading us, the procession of the sons of educated men?[1]

Personal Motivation

Born a female Zimbabwean and raised in a home environment where there were only girl children, my formative years were overshadowed by a heightened consciousness of being female. I had been born a girl in a society that openly considered femaleness as being short of the best. Even though changing times in Zimbabwe have seen a shift in mainstream attitudes and expectations surrounding being female, deep-rooted customary laws and practices remain gender biased. These laws and practices are adhered to at familial and kinship levels, and are found existing alongside the statutory laws governing Zimbabwe (see Bentzon et al., 1998; Hellum et al., 2007; Mvududu & McFadden, 2001). As such, it was not unusual for me to be aware of male chauvinism permeating strongly from clan relations, who viewed my family in terms of paucity because of the lack of a male heir to carry on the family legacy. Despite this outside view, however, home was a haven free of any gender prejudice.

Due to these conflicting experiences, where in one setting my femaleness was not positioned as problematic and was always defended, and in another where being a girl was viewed as lesser and opposed, the transitional phases from my childhood to adulthood became characterized by an internalised tension. In feeling both valued and devalued for being female I would find myself both adversary and ally in conforming with or rebelling against set gender stereotypes. Now in my adulthood years, as I sit here looking at my PhD research title, 'the gendered dimensions of environmental change', I gently say to myself,

> No more sex wars
>
> Let the study liberate you
>
> Allow it to take you wherever it may lead
>
> And there you will find closure

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[1] Source: Woolf (1938).

Despite this tension and inner turmoil, I have the memories of my childhood to thank, for stirring in me the keenness to unpack and to explore critically matters relating to gender. Because my femaleness was not opposed at home, my quest to acquire knowledge was not hindered, rather it was nurtured. Hence at the undergraduate level I studied environmental studies, which became my major in both my Bachelor's and Master's degrees. It is this coming together of my personal drive to understand more critically gender debates and my academic background in environmental studies which has then become the inspiration for my PhD, which is to gain a more nuanced understanding of the gendered dimensions of environmental change in Zimbabwe.

Having outlined briefly what initially motivated me to undertake a study such as this; I now look to define broadly four concepts which are important to the study.

Delineating Key Concepts

This study draws on four key concepts. These are rurality, vulnerability, gender and environmental change. The four concepts are not treated as autonomous terms in the study, but are bonded together to form the essential structure of the empirical research. The structure is underlined by the premise that women, the poor and rural farmers in general are among the most vulnerable sub populations (identity groups) to environmental change (see Mearns & Norton, 2010). This supposition will be fleshed out shortly in the thesis problem. At this juncture, I define the key concepts individually to disambiguate and make firm delineations regarding how the concepts will be used in the context of the study.

Rurality

Rurality refers to the characteristics of being rural. The term owes its connotative fibre to the culture of popular dualisms, which in this case sets the rural against the urban (Bryant & Pini, 2011). Of the four key concepts, rurality is the least contested, given that the marginality of Third World rural areas is often indisputable (see Bernstein, 2013). Again, because Third World populations remain highly rural and dependent on traditional farming practices for sustaining life, vulnerability to environmental change for these contexts is an extremely pertinent issue. This however does not mean that all Third World rural areas fit into a homogeneous taxonomic system of analysis (Chambers,

1981), as "*the realities of poor people are local, complex, diverse and dynamic*" (Chambers, 1995, p. 173).

That being said, rural spaces while dynamic and diverse are thought to experience 6-7 biases (i.e. spatial, project, person, seasonal, diplomatic and professional) which continue to manifest and dovetail in many ways (Chambers, 1983)[2]. The biases will be given more consideration in Chapters 7, 10 and 11. In the meantime it is important to note that as a result of these biases, rural people and particularly the rural poor are hardly seen, their experiences are unknown or misunderstood and their voices not genuinely heard, if at all heard. This thesis in part seeks to speak to this.

Vulnerability

In simple terms, vulnerability points towards the propensity to be at risk; be harmed, or the capacity to be open to loss (Martens & McMichael, 2002). The inability to garner sufficient resources to anticipate, cope with or recover from eventualities is what is often thought to increase people's vulnerability (Eakin & Luers, 2006).

Vulnerability is a complex concept, seeing as it is underlined by the intersectionality of intricate causalities and casualties. However there is a temptation to presuppose rather than decipher actual vulnerabilities. That is, it is assumed that certain identity groups or individuals are automatically vulnerable or more vulnerable in relation to others, for example women in relation to men (Furedi, 2007)[3]. This implies that certain people in relation to others will always have access to more power and resources in relation to others, reflecting winners or losers (O'Brien & Leichenko, 2003). Thus, having been conditioned into thinking or seeing certain people as being vulnerable, most vulnerability deductions are arrived at through a priori knowledge, which is informed by generalisations or stereotypes.

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[2] Since the 1980s, Chambers has been one of the leading advocates for putting the poor and their voices at the centre of development policy and practice. In particular he argues they should be taken into account when the development problem is identified, policy formulated and projects implemented. Chambers is well known for popularizing the idea of "putting the last first", and he argued the importance of development professionals being critically self-aware. The widespread acceptance of "participatory" approaches to development is in part due to his work. In 1983 Chambers helped to identify, highlight and name many potential biases in the observation and understanding of poor people's lives (also see Chambers, 2006b).

[3] Based on Furedi (2007), children, the elderly and ethnic minorities are among the identity groups that are often seen as being vulnerable.

Yet to label uncritically sectors of society as homogenously vulnerable means their reality is only partially represented. Conversely as will be shown in subsequent chapters, the unrecognizability of some people's vulnerabilities, is also in itself a dehumanisation process (see Butler, 2004a), particularly if this means that they are omitted from development policy and programme agendas. Chapter 3 in this thesis explores notions of vulnerability.

Gender

Gender exists as part of the binarism linking the masculine and feminine complexes. The term has often been used by some feminists only with regards to and as concerning women only problems (see Baden & Goetz, 2005; Kolawole, 2004; Singh, 2000). When men are included they are often positioned as the perpetrators of disadvantage and only to redress the inequalities that women face (Barker et al., 2010). Paradoxically men tend to be presented as genderless beings, while all masculinities are concurrently assumed to be hegemonic. This way of thinking overlooks the diversities of masculinities, including the reality that not all masculinities ultimately reach the hegemonic ideal (Carrigan et al., 1985).

Environmental change

Environmental change is the stem through which the gender debate is affixed in this study[4]. Unlike the other terms, it is a compound word that when separated simply reads environment and change. However, a cursory glance at the term can mean that one might fail to realise which environment, or what changes, are being referred to. Due to politicism, and normative suasion the term is often limited to environmental changes of biophysical form, more specifically those with global precedence.

In this study environmental changes are taken to be a collection of transformations to the coupled human-natural system which threaten the sustainability of both ecological and social systems (O'Brien & Leichenko, 2010, p. 157). The definition adhered to in this study deviates from the narrowed, scientific and technocratic view of environmental changes as biogeochemical processes of change to the Earth System. This departure

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[4] I borrow this symbolism from plant morphology where the function of the plant stem or trunk is to hold and support nodes or branches. In this case environmental change is the stem and I am exploring its gendered dimensions.

from the narrowed definition is justified because the environmental changes I am referring to mean more than biophysical changes[5]. In addition, incidences of environmental change have in recent times become complex (Leichenko & O'Brien, 2002), especially as new patterns of change are emerging at frequent rates (Moser, 2013), threatening peoples livelihoods (Mearns & Norton, 2010).

Examples of new patterns of environmental change seen in recent times include the now frequent occurences of El Nino/ La Nina weather events, the abrupt impacts of climate change seen through deadly natural disasters like tsunamis and floods, new deadly viral strains for diseases like HIV/AIDS, Ebola and Malaria (e.g. Zika), and the general economic decline in world markets, for instance as seen through the great recession in the late 2000s.

In respect of the numerous forms of environmental change which are in constant flux, I argue against parochialism, and for holistic application of the term which respects processes of change as they are perceived in localised environments. That is, recognising the world is not uniform, static, predictable or decipherable through rationality (Beattie & Schick, 2013). After all, environmental change is not a concept without form. Worldwide, different people in different regions are faced with, and are dealing with, different forms of environmental change (Leichenko & O'Brien, 2002). Iteratively, these diverse realities ought to be understood through the perceptual outcomes of the people experiencing such change.

The Thesis Problem Outlined

Having introduced briefly the four concepts that are central to this study, I will now outline in detail the thesis problem which is a coalescing of five main issues. Drawn together, the issues stipulate the overall research aim and questions which will be presented at the end of the outline. Factoring in the thesis problem, research aim and questions, two research gaps will further be laid out.

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[5] see Adger et al. (2005) who share similar views.

1. Learning the implications of environmental change for rural people

Firstly, I focus on environmental changes because there is a growing desire in the field of development to understand in more depth the implications of environmental changes for rural people whose livelihoods are natural resource dependent.

It is important to consider the implications of environmental change for rural people particularly because it is assumed that those who rely closely on natural resources for their survival and welfare are more likely to be vulnerable to environmental changes of biophysical form (WorldBank, 2008). As an illustration, despite tremendous advances in agricultural science, climate and weather remain crucial variables for farming (Rosenzweig et al., 2001). Hence it is constantly said that natural resources are climate sensitive. Nonetheless, a large proportion of the world's population who are reliant on natural resources for survival reside in the Third World (Carney, 1999) where due to poverty they rely further on rain fed subsistence farming (Ellis & Freeman, 2005). Also due to poverty, Third World rural farmers are more vulnerable to the social impacts of environmental change. For example, rural people in Zimbabwe face the brunt of the present food insecurity, worsening macroeconomic conditions, fragile political environment, and the impact of HIV and AIDS (see Gandure et al., 2010, p. 513)[6]. While biophysical changes cause definite external harm such as loss and damages to property and life, social changes seem to impinge more directly on farmers' adaptive capacities (see Chambers, 1989). Overall, Third World rural farmers are now persistently seen to lack the capacity or capabilities to prepare for and cope with environmental change (Mearns & Norton, 2010), despite having long histories of having done so.

2. Focusing on local environmental changes

Secondly, my study looks holistically at the concept of environmental change by taking into consideration the environmental changes of communal concern. That is, through allowing the people affected to define the locally pressing environmental changes. From

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[6] It is worth noting at this point that in Zimbabwe, rural men and women are often treated as a unitary category, that is, as farmers. In this study, I will however privilege the distinctions in the lived experiences of the rural men and women by giving gender disaggregated narratives of environmental change to ascertain gendered impacts and differential vulnerabilities. The notion of gender will be explored further in relation to rural people, vulnerability and environmental change in sections 3 and 4 of the thesis problem.

what has already been suggested, the concept of environmental change focuses more readily on scientific forecasts of globally accepted environmental changes than on local experiences. This means that locally felt environmental changes in the 'here and now' often pale in comparison to global scientific forecasts.

Realising the deficit of development in the area of giving voice to the vulnerable, my study finds it relevant to gather the lived experiences and local realities of environmental change first hand from the people affected. Several scholars have confirmed the existence of this deficit, citing possible dangers that can arise as a result. For comparison purposes I place the scholars into three groups. In brief, the first group of scholars approaches the deficit from a socioeconomic perspective. I take as an example, Hillhorst and Bankoff (2004) who highlight that, for many poor people, their voice is the most crucial asset that they may have left and so understanding vulnerability requires taking into account their experiences and perceptions. The view of putting poor people first is as prior suggested upheld also by Robert Chambers who asks how in conditions of continuous accelerating change development can put people first and poor people first of all, to enable the sustainable wellbeing for all (see Chambers, 1997).

 From a sociocultural perspective which argues that hazards are social constructs, Smith (2004, pp. 17, 18) reason that, it is through perception that people are able to identify that something unusual is happening. Through sense making, the people are then able to understand what is happening and develop strategies to gain some form of control over it[7]. To build up on this perspective, it therefore seems bold to assert that, local people have knowledge about their locality (Heijmans, 2004, p. 126) and are experts of their own experiences.

Lastly, from a sociohistorical perspective, it is believed that, due to Western dominance, Western development theorists tend to ignore the perception of local people and pressing local issues, choosing instead to focus on what they deem to be classic pressing social and economic conditions of the developing world (Bankoff, 2004). At the same time as this, several development agencies are also thought to give very little consideration to the perception of local people (Heijmans, 2004, p. 125), preferring

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[7] See section under Risk and Vulnerability in Chapter 3 for the explanation on how risk is sociocultural.

instead to be entrenched in their own profound ways of knowing and understanding (Delica-Willison & Willison, 2004). As Bankoff (2004) rationalises this behaviour, he says, development in consequence "conveys an essentializing sense of otherness stripping people of their histories, inserting them into pre-conceived typologies which define a priori what they are, where they've been and where with development as a guide they will go" (p. 27). Making allowances for the often overlooked voices of the poor people in Third World post-colonial societies, McEwan (2009) thus argues that spaces for producing decolonised knowledge in Development Studies could be widened through boosting the intersection and dialogue between development and post-colonial studies.

Altogether, while the move from vulnerability to resilience cannot be made without critically evaluating socio-ecological processes and social relations, the move will also not be made possible without disrupting the status quo functioning as the normative practices of development practitioners (Fordham, 2004). In other words, the status quo will remain the same for as long as development practitioners do not as Chambers (1997) suggests ask questions such as, whose reality counts? who constructs that reality? who acts upon that reality? And who is in control of the development process? So rather than generalise notions of vulnerability, development theorists and practitioners should seek to uncover the authentic human condition through putting people first.

3. Unpacking gender vulnerabilities to environmental change

Thirdly, my study focuses on environmental change in relation to gender. Since society is differentiated, the effects of environmental change will be felt differently by different people in accordance to their pre-existing differences (Matthew et al., 2010; Rahman, 2003; Salih, 2001). Thus it is argued that men and women will be affected differently by environmental change based on gendered differences (Vogel & O'Brien, 2004). Allowing for the reality of a gendered society, Jagaar (2014) hence reasons that any philosophical work in the pursuit of gender justice should encompass the gender dimensions of every conceivable subject. Given her thinking and the lack of in-depth research which unpacks critically the gender dimensions of environmental change, my study is thus timely.

However, in current gender studies there is a tendency to look only at women's vulnerabilities, for women are considered to be more socially and economically disadvantaged than men, making them more vulnerable to environmental change. Some of the global conventions and protocols that concede this condition of women and are used to strengthen the argument of vulnerable women include CEDAW (1979), Agenda 21 (1992) and the Beijing Platform for Action (1995). In particular, Agenda 21 was the first global plenary through which women's vital role in environmental management and development became fully endorsed. Principle 20 of Agenda 21 calls further for the full participation of women in the achievement of sustainable development[8]. Development goals that were additionally ratified to guide the global action in achieving sustainable development are equally sensitive to women's vulnerabilities. The first of their kind were the Millennium Development Goals (MDGs) in 2000. Of the proposed 8 MDGs, women's vulnerabilities were acknowledged through MDG 3 which promoted gender equality and the empowerment of women. When the MDG era came to an end in 2015, the Sustainable Development Goals were ushered in. Similarly, out of the proposed 17 SDGs, women's vulnerabilities are acknowledged through SDG 5 which promotes gender equality and the empowerment of women

In terms of gender research on women's vulnerabilities, from the initiation of the Women, Environment and Development (WED) movement and the coinage of ecofeminism in the 1970s, women in the Third World were acknowledged to be vulnerable (see Chapter 4). They were said to be affected most by environmental degradation due to their roles as providers and carers, and based on their being socially positioned as the poorest and most vulnerable (see Jacobs, 2010; Masika, 2002; Sweetman, 2002). Yet until the mid to late 2000s, the wider scholarly community had been silent about gender and climate change (MacGregor, 2010). Until this point, only the NGO community and Development organisations such as UNEP, UNCED and UNIFEM had tackled gender and climate change, mostly in relation to climate change impacts on women in the Third World (ibid). The silence of gender studies on women and climate change has however since changed. More and more, studies are acknowledging the

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[8] While the notion of sustainable development had remained silent on women's disadvantaged position at its inception in 1987, they had been incorporated into the concept in 1992 through Agenda 21.

impacts of climate induced resource scarcity and rainfall shortages on rural women (see Buckingham-Hatfield, 2000; Dankelman, 2010; Denton, 2004; Whitehead & Kabeer, 2001). Due to these environmental changes it is understood that the work burdens as well as the energy and time costs will increase for women. This, coupled with the recurrent political, economic, social and cultural disenfranchisement of the women is believed renders them more vulnerable to environmental change as compared to men (Matthew et al., 2010)[9].

Absent from the gender studies however are men's vulnerabilities (MacGregor, 2010). My study will therefore look at gender more comprehensively, to show how men and women may be affected and cope differently when confronted with environmental change. I thus argue for a more nuanced understanding regarding the gender and environmental nexus.

4. Locating the missing men in environmental change vulnerability discourses

Fourthly, in taking a more nuanced stance on gender, I address the underrepresentation of men as vulnerable subjects in the environmental change discourse. In between talking about the vulnerabilities of Third World farmers as a unitary category, to a gender focus that talks of women only vulnerabilities, there is silence on the vulnerabilities of the men who are part of the unitary category of farmers and also part of gender. Although environmental change literature cites Third World farmers as being vulnerable because their livelihoods are dependent on natural resources, and as being poor partly due to the low endowments of the geographic capital of Third World rural areas, gender studies account for women vulnerabilities alone. In the process, men's vulnerabilities have been largely missing from discussions.

To flesh out briefly the underrepresentation of men in environmental change vulnerability discourses, I make use of Sherilyn MacGregor's views from her study called 'Gender and Climate Change: From Impacts to Discourses'. Firstly, MacGregor (2010) points out that the 'impact approach' in gender is almost exclusive to particular women

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[9] There is also apparently a strong correlation between gender inequalities and women's survival rate in natural disasters such as typhoons, droughts and floods. The World Health Organisation has estimated that women are up to 14 times more likely than men to die as a result of natural disasters (WHO, 2003).

identity groups. That is, the poor rural women in the Third World. In light of its rhetoric of victimhood, MacGregor highlights that the impact approach paints Third World rural women as one-dimensional objects who do not enter the male dominated, techno-scientific, discourse on global environmental change unless as victims, the danger being of affirming the negative stereotype of rural women as passive sufferers who are unable to anticipate, cope with, or recover from environmental shocks[10].

As MacGregor points out even further, there is an uncritical acceptance of the scientific framing of biophysical changes, such as climate change, where their inevitable consequences are not fully understood. In my view, it seems almost conflicting to talk about the deadly impacts of biophysical changes such as climate change then choose to recognise some people's vulnerabilities while not recognising others. In keeping with MacGregor, there appears to be an untheorised belief that if 'impacts' are measured and female victims counted, then a strong vulnerability case would have been argued. At the same time as this, very little room is left for human voices – let alone the voices of the women who may wish to resist the way they appear in the story (MacGregor, 2010, p. 4). While this remains the more dominant approach for analysing gendered vulnerabilities, I acknowledge that even the tiniest of variations in climatic shifts or the economic climate which rich men and women may withstand can threaten the very existence of poor women and also men (Eakin & Luers, 2006). Equally, I acknowledge that the confluence between traditional conditions of risk and new and unfamiliar conditions of risk can confound established means of coping, creating new winners and losers (Kasperson & Kasperson, 2013). Essentially, there is not a single script for vulnerability and, in any case, the fact that men and women occupy polarised gender domains already suggests that their vulnerabilities will differ quantitatively and qualitatively. Therefore, trying to understand the nature of men's vulnerabilities will not take away from women's perhaps better known vulnerabilities.

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[10] Because climate change was at its inception presented as a techno-scientific problem requiring technical solutions, MacGregor (2010) maintains that the politics of the environment became even more male centred. As such, men are at the forefront as policy experts, scientists and campaigners responsible for addressing the climate crisis.

5. Arguing rural vulnerabilities against the notion of context

Appending a spatial element to the gendered dimensions of environmental change, it is the differential vulnerabilities of the rural men and women in Zimbabwe that are under scrutiny in this study. Hence, as the fifth issue that I focus on is Zimbabwe's context which will be cited for its role as a non-enabling environment for coping with environmental change and reducing vulnerabilities. I focus on context because it is believed that people's lived experiences cannot be divorced from context (Bankoff et al., 2004; Hewitt, 1997; Vogel & O'Brien, 2004; Wisner et al., 2004). Thus, an analysis of the multi-causal structure of vulnerability which is inclusive of context is useful in identifying solutions that must be developed to assist the vulnerable. As Ribot (2009) cautions however, the multi-causal analysis may not motivate all decision makers. Yet of course it could equip development professionals and other relevant interest groups with valuable information that can influence them to promote or demand the rights and protections that will boost the coping capacities of the vulnerable (ibid).

Two chapters in this study are dedicated entirely to showing the significance of context towards the vulnerability of the Zimbabwean rural men and women. Chapter 6 presents the crisis situation which I term the situational context, while Chapter 7 presents the case study areas, giving also a general glimpse into Zimbabwean rurality, to show what I term the locational context. Drawing attention to locational context first; at least 68.3% of Zimbabwe's population live in the rural areas (ZIMSTAT, 2013a), spaces which are labelled as being 'reservoirs of poverty' (Coltart, 2008, p. 19). This is because 90% of the rural areas are located in semi arid regions with poor agro-ecological conditions (Phillips et al., 1998, p. 40). Typified by marginal soils and subjected to frequent mid-season dry spells (Moyo et al., 1993), the semi-arid regions are a colonial legacy (Chinake, 1997). Through the Land Apportionment Act of 1930, the British colonial minority had taken for themselves the bulk of the prime land, consigning the marginal and agroecologically poor land to the native majority (Bassett & Crummey, 2003; Friis-Hansen, 1995; Harold-Barry, 2004; Kanyenze et al., 2011).

Post settler colonialism, Zimbabwe has been exposed further to large scale political and economic problems mounting from the early 1980s to the point of crisis at the turn of

the new millennium. Due to inevitable linkages between the microcosm and the macrocosm, the rural people have not been immune to this snowballing national calamity commonly referred to as the Zimbabwean crisis. Appreciably, this is the situational context. As part of the ramifications of the crisis, the Zimbabwe which was once esteemed for being a promising colonial project beaming as the breadbasket of Africa is today labelled Africa's basket case (Tupy, 2013). This last statement mirrors the growing trend of food insecurity in the rural areas traditionally known to be the major food producers.

Granted that it is virtually impossible to separate lived experience from context, how people living in the world's most difficult places (i.e. the poorest, most politically fragile and conflict affected environments) view their situations is important both for them and the world as a whole (Macdonald & Allen, 2015, p. 1). Consequently, local knowledge and lived experience need to be understood and valued as being interwoven with the context or appreciated in parallel.

Up until now however, in Zimbabwe as in many other countries around the world, focus on lived experience is in general often imbued with normative agendas (see South et al., 2012), for instance about what environmental changes ought to be and what gendered vulnerability ought to look like. Often as a result, normatively driven agendas about what local realities should be like versus what they really are like persist[11].

Taking into account the Zimbabwean context (locational and situational) and the experiences of the environmental change lived by the rural men and women, I thus show in this thesis that in places riddled with a multiplex of challenges, a state of interlocking complexities could mean that at each new level of complexity anyone may be exposed to challenges that exceed their ability to cope. In a way, new patterns of vulnerability may have been created, and normative expectations of vulnerability

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[11] In recognition of this South et al. (2012) submit the often unspoken reality which is that in most cases 'the grant' remains the ultimate priority for some development agencies, and as such, local communities are left with no say over matters concerning their own lives. It would be disingenuous to not recognise or appreciate for that matter the crucial role played by external agency particularly in situations of humanitarian crisis – where responding to emergency situations and addressing short term needs is a priority (ibid). Yet still, opportunities exist to better understand and relate to people's lived experiences as set within their local contexts.

distorted. In essence, there are generalisations about men and women's vulnerabilities that will not hold true in all places (Demetriades & Esplen, 2010). This is why it is all the more crucial to look at vulnerability on a case by case basis.

I now draw these five issues together to stipulate the overall research aim and research questions.

Research Aim and Research Questions

The purpose of this study is to consider critically the experiences and perceptions of Zimbabwean rural men and women to environmental change so as to ascertain gendered impacts and differential vulnerabilities. The central research question is,

> *What environmental changes have been taking place within the Zimbabwean rural context and how are men and women differently vulnerable; thus what are their gendered experiences of vulnerability and mechanisms for coping?*

Underpinning the central research question are four sub questions that guided the process of data gathering in the field.

Perceptual Evaluation	Sub Questions
Context **Causality** **Coping Mechanisms** **Casualties**	1. Which experiences of environmental change have been most critical in the lives of rural men and women and how does the crisis situation add to these experiences? 2. What do the rural men and women perceive to be the causes of environmental change? 3. What coping mechanisms have they respectively adopted in responding to environmental change? 4. Who has been the most vulnerable to environmental change, men or women?

Factoring in the research questions listed above and the key issues also raised above, my study seeks to make a major contribution to new knowledge by addressing two main research gaps which are outlined below.

Research Gaps

Research Gap 1: Studies which include the voices of rural people, many who are poor and depend on climate sensitive resources for subsistence, and who are among the most vulnerable people to environmental change, remains an academic terra nova in Zimbabwe (Keeley & Scoones, 2000)[12]. Moreover, academics within this context appear comfortable with the idea of environmental change being biophysical and seem content with the globalisation of environmental changes. In contrast, my study seeks to engage rural people's voices through privileging their experiences and perceptions of environmental change. My study argues further that people in local contexts should be allowed to define environmental changes of communal concern. It is worth considering the voices of the poor in crucial debates concerning their lives, because as Speaks (2009) suggests,

> *the content of a perceptual experience is: the way that experience presents the world as being; the way that world is according to that experience; the way that world appears (looks, smells, sounds) to be to the perceiver. The content of a perceptual experience determines the veridicality conditions of that experience: it determines the way the world would have to be for the experience to be accurate* (p. 1)

Through his imaginative analysis, Speaks confirms my opinion that, listening to people's voices will reduce empirical generalisations concerning the people's experiences with change. For the voices of the people experiencing change will give a deeper understanding of the ways in which their livelihoods are truly threatened by environmental changes. The voices of the people also paint an accurate depiction of the trajectories of the people's vulnerabilities, showing which environmental changes are of communal concern. The experiences and perceptions of the people are additionally crucial in that they can help researchers to ascertain the types, numbers and effectiveness of coping responses undertaken by the people experiencing change, revealing also the structural constraints that shape the response mechanisms.

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[12] Likewise, Zimbabwean policy makers exclude rural people from the seminal processes of policy formulation involving environmental issues (Chagutah, 2010).

Research Gap 2: In Zimbabwe, when environmental studies look at the vulnerabilities of rural men and women they usually treat them as a unitary category. That is, as farmers (see Cavendish, 2000; Cousins et al., 1992; Vorlaufer, 2002; Zvigadza et al., 2010). On the other hand, gender studies do look at the vulnerability of the rural woman. That is, against growing food insecurity and resource scarcity. The studies explore the rural woman's plight as the major food producer and home carer doing all the work, yet owning nothing. This, justifiably making her vulnerable on those grounds (see Chinyemba et al., 2006; Gaidzanwa, 2011; Kachingwe, 1986; Paradza, 2010). The gender studies are however silent on the plight of the rural man. In essence, the gender studies in Zimbabwe fail to unpack gendered vulnerabilities. For as Muchemwa and Muponde (2007) underline, Zimbabwean scholarship and studies on gender remains fixated on one sex and one gender:

> *To some critics [masculinity] is a superfluous and vexatious addition to patriarchal strategies of domination that rams another painful nail into the crucified body of feminism…To discuss one gender implies an adversarial existence of underprivileged genders and a definition through negatives of the privileged one…Such critical practices deny the existence of the marginalised and emerging masculinities that also seek to unmask the strategies of domination employed by hegemonic masculinity* (p. xv)

Gender policy in Zimbabwe takes a similarly insular view on gendered vulnerabilities. The implementing Ministry for the gender policy and gender related affairs in Zimbabwe, is the Ministry of Women Affairs, Gender and Community Development. The Ministry administers gender issues from a womanist point of view, albeit with an obligatory inclination towards men which is only in blue print (see MoWAGCD, 2013). In the scheme of things, men hardly get recognised by the gender policy, neither is their vulnerability acknowledged.

The policy fails to take into account the unifying colonial disadvantage that qualifies rural areas as reservoirs of poverty, nor does it recognise masculinity as a collective gender identity, in so doing exposing marginalised masculinities. The policy also fails to deconstruct patriarchy, so as to inspect the ways in which the embedded feminism

might also share the same nest(s) and reaps the same benefits with hegemonic masculinity (see Muchemwa & Muponde, 2007, p. xv). This is especially critical because rural areas are the embodiment of tradition that in any event perpetuate patriarchy (Primorac, 2006). By refusing to deconstruct patriarchy, the policy assumes that rural women's subordination is a zero sum process, where they always yield to and never wield power (see Vijfhuizen, 1998), this way forsaking the possibility that not all men are winners, and not all women are losers. In the process, some men who are vulnerable are left vulnerable. This calls for the words of Neef (2014) who argues that critical development scholars ought to pay attention to all who fall on the losing end. To do so there is need to unpack to understand, rather than to simply rely on assumptions. Thus as has stated severally prior to this point, my study offers a more nuanced understanding of gendered vulnerabilities through presenting gender disaggregated experiences of environmental change to show gendered impacts and differential vulnerability.

Now that the ways in which this study intends to contribute to new knowledge have been made clear, the thesis structure will be outlined.

Thesis Structure

In Chapter 1, the introduction, the researcher's positionality served as the chapter's opening, profiling my personal drive for undertaking this thesis, situating me, the author, in the debate on the gender dimensions of environmental change in Zimbabwe. Key concepts were introduced. The background to the thesis problem, the aim of the thesis and subsequent research questions were made explicit, as was the contribution to new knowledge.

Chapter 2 will review the literature on environmental change. Crucial debates surrounding what environmental change is and who seems to decide which environmental changes matter to the local contexts will be explored. In total, the chapter will argue that environmental change is best understood in set localities, and more specifically, that claims concerning what constitutes environmental changes of communal concern ought to be made by those directly affected by the changes.

Chapter 3 will review the vulnerability literature. This will be accomplished through exploring the different forms of vulnerability, also making known who the vulnerable people are and where the vulnerable places are. Other crucial issues that will be featured in this chapter include the politicisation of vulnerability and the concepts of normativity and dehumanisation in vulnerability.

Chapter 4 reviews the literature relating to gender. The chapter initially maps out gender misconceptions so as to reaffirm the entry point from which gender is approached by this study, which is from a standpoint that sees both men and women when thinking about gender. The chapter will delve into the theoretical perspectives of gender in development to set the groundwork for understanding how Third World rural women's situations and positions are framed by the global debate on gender. The critical 'who' questions (*who has what, who does what, who decides what*) will also be explored theoretically, forming the basis for the conceptual framework for this study that sets out to tackle the question, '*who is affected by what changes, who gains, who loses*'. As part of understanding the gender vulnerability nexus, how the gender construct is used in vulnerability studies will further be interrogated. Lastly, to conform to the design of a gender balance, the chapter will also locate missing masculinities.

Chapter 5, on methodology, describes the methods and fieldwork experience. The fieldwork work experience should also be thought of in two ways, how the fieldwork was planned, and then what occurred once in the field. Hence the chapter will not only address the philosophical framings of the study, that is, its ontological and epistemological facets, but I will also speak to research ethics, recruitment and access to participants, the process of data collection and analysis and limitations of the research.

Chapter 6 will introduce the Zimbabwean crisis context through an analysis of the chronological order of events that led to the culmination of crisis. Still centred on the Zimbabwean context, Chapter 7 will present the case study areas of this research. Set within Manicaland Province of Zimbabwe, Buhera and Nyanga will be comprehensively presented as part of a justification of the pre-existing rural poverty and contextual vulnerability of the rural areas.

Chapters 8 and 9 will present the findings of the study. The chapters are descriptive in nature, focusing primarily on the local interpretations of change. This is in keeping with the study's intention, to explore the experiences and perceptions of the rural men and women. Findings will be looked at under themed subheadings that serve to answer the study's research questions, and achieve the aim of the research. Chapter 10 will discuss the findings of the study in relation to the research questions, and in terms of the broader literature.

Chapter 11 is the concluding chapter. The chapter sums up the answers to the research questions, and makes some recommendations for policy and practice, and for areas needing further research.

Chapter 2: Simplifying Environmental Change

Introduction

Environmental change is a problematic term and its interpretation and application is intensely debated. Although at face value the term simply implies processes of change to the environment, unpacking the term shows otherwise. At deeper levels of analysis we start to delve into inquiries such as which environment, and what changes? Thus, although a considerable number of people are familiar with processes of environmental change, to a great many the concept of environmental change remains,

> *an impenetrable and distant concept, and projections of doom and gloom – however often repeated – fail to make it more meaningful* (Feliciano & Berkhout, 2013, p. 225).

The sense of mystification is exacerbated further by ascribed connotations found in the closely associated term - global environmental change (GEC). As such, in addition to defining the concept of environmental change, this chapter will explore issues surrounding the scale at which environmental change should be analysed. This is through focusing on environmental change debates such as the politics of homogeneity, hegemony and scale explored in relation to environmental change in the Third World, and in particular, Zimbabwe. In doing so, I problematize orthodox approaches used in this body of knowledge, but also propose alternative ways of thinking that may offer possibilities for a more holistic inquiry of environmental changes. While environmental change is the stem to which the gender debate is fixed in this study, at this point, this chapter does not directly address gender issues.

Defining Environmental Change

The concept of environmental change in a general sense epitomises any change in that which comprises an environment. In a strict sense, the concept epitomises changes in the physical and biogeochemical environment either caused naturally or influenced by humans (NRC, 1999). This last definition delineates environmental change from a narrowed viewpoint given that, in reality, environmental changes go beyond biophysical

changes (see Adger et al., 2005). A careful analysis of the etymology of the term may be useful in unpacking its meaning. To do this, I break down the term from its compound nature into two separate parts - environment and change. Each part is analyzed separately in the following subsections.

Environment

The term environment is endowed with a plethora of meanings and has thus been called elastic by Martens and McMichael (2002, p. 1) who note that it can mean different things to different people in different contexts. However in general the term is used to refer to one of the following things[13]:

1. the aggregate of biotic and abiotic factors i.e. that which denotes the biophysical or natural surroundings of human existence
2. the surroundings or circumstances and conditions that surround one i.e. that which denotes the social surroundings of human existence, including influences that modify and determine the development of life or character
3. the setting or condition in which a particular activity is carried out i.e. that which denotes locale and ambiance or context
4. the built environment i.e. that which denotes manmade structures

The focus of this research will be limited to the two topmost definitions. From these as with the rest, it is worth noting that despite the widely understood meaning of the term environment, it does not only embody the physical attributes of the environment. I argue this because the environment as referring to the physical environment is widely understood to be the denotative sense. Smith (2004) attributes the predisposed view of the term to the Western construction of the human-environment relationship, where the two are often seen to be dichotomous. As a result, the ontological basis of the 'environment' construct became reinforced in the faculty of natural sciences, which is why the environment is predominantly affiliated with this discipline[14] . This strand of

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[13] The definitions are a blend of meanings taken from a wide selection of source materials on environment, philosophy and society (see Oldfield (2005); Goudie and Cuff (2002); Lonergan (1999).

[14] According to Sardar (1999), to advance mono disciplinary fundamentalism further compartmentalisations and demarcations of other disciplines, for instance the allotment of human studies to social sciences, were also carried out by the West. Such disintegration creates a false impression of isolation and non-relatedness of disciplines.

critique will be furthered later on in the chapter. Crucial to note at this point is that, together the physical and human environments constitute the environment as the coupled human-environmental system (Stern et al., 1992).

On this basis, Martens and McMichael (2002) argue against the often supposed dichotomous relationship between humans and the environment. Similarly, Rahman (2003) posits that the dichotomous relationship should not be there to start with. The commonly held notion here is that humans and the environment cannot be divided into watertight compartments (Sardar, 1999), suggesting that the environment is not out there (Martens & McMichael, 2002), is not a static backdrop of human activities (Lonergan, 1999), it is where we all live (WCED, 1987). Salih (2001) affirms that we do not just live within the environment but that the environment constitutes the conditions necessary for human existence. Hence we are part of the environment in as much as the environment is an integral part of our development (Cole et al., 1999).

Even in its strictest sense, that of biophysical attributes, the environment cannot be disentangled from social reality. Chapter 1 revealed that biophysical changes are framed and managed within social frameworks (Feliciano & Berkhout, 2013), have social repercussions, and that social vulnerabilities are inevitable (Cutter et al., 2003). This is why there is now increased social science research focusing on the complex dynamics of socio-ecological or coupled human-natural systems (ISSC/UNESCO, 2013). In addition, since biophysical changes take place within the context of a socially stratified world (Marino & Ribot, 2012), the differential impacts of environmental changes on different members of society are social issues which are also now being seriously considered (Dankelman, 2010; Matthew et al., 2010; Rahman, 2003; Salih, 2001). This is what this study seeks to explore in relation to gender. Put simply, probing the coupled human-environment system enables the grasp of multiple-dimensions of vulnerability (Turner et al., 2003). This demands that the whole human-environment system be viewed as important (Kok et al., 2015). As a result, I tend to agree with Bolin and Stanford (1998) who see nothing to be gained from conceptualizing society and nature as static dualisms. As part of their validation for this standpoint they state that,

the physical word discursively represented as nature or the environment [is] continuously modified and transformed as humans produce the means of their existence across space and time (p. 6)

It is clear then that the term environment is very broad, which is why in certain cases qualifying words are used, for instance, 'physical'[15] environment, and 'human'[16] environment. In practice, it is also considered correct to embrace a more inclusive definition if the objective is to capture other dimensions of the environment (Martens & McMichael, 2002). There are other studies that have attempted to widen the definition of the term through moving away from entirely technical assessments of the environment or environmental change for that matter. For example Lonergan (1999) remarked that his paper's practical definition of the environment was dynamic and non-synonymous with physical resources and processes. Following a similar stance, in my study, the term environment is also taken in a broader sense, and, in particular, as relating to both the biophysical and social surroundings of human existence

Change

Having explored the term environment, I now define briefly, what 'change' means in order to ascertain what environmental change is. The term change is best understood as a transformation (Brown et al., 2013b), which on its own implies a process. More precisely, a process of change that involves the altering of the fundamental attributes of a system (Hackmann & St.Clair, 2012; Park et al., 2012; Pelling, 2011) (see Table 1).

Change in this regard entails major transformations that are either systemic or structural in nature and which come with effects. Important questions to ask would be: What exactly is being transformed? Who are the agents of transformation? Is the transformation planned or deliberate? (Brown et al., 2013b). Also importantly, are the transformations positive or negative? What are the effects of the transformations? Who is being affected by the transformations? These are questions that will be given form

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[15] Components of the physical environment include the atmosphere, biosphere, hydrosphere and lithosphere.
[16] The human environment is often referred to as the anthrosphere or noosphere and is further subdivided into social, economic and political systems.

throughout the study. In the interim, some of the interdisciplinary uses of the term transformation are given below.

Table 1: Definitions of Transformations across Disciplines

Domain	Definition of Transformation
Environmental social sciences	A process of altering the fundamental attributes of a system including structures, institutions, infrastructures, regulatory systems, financial regimes, as well as attitudes and practices, lifestyles, policies and power relations (Hackmann & St.Clair, 2012)
Geography	Fundamental change in systems (cultural, political, economic and so on) involving multiple actors across interlinked levels; operates at the level of epistemology, which is concerned with deep shifts in values, behaviour and rights (Pelling, 2011)
Natural resource management	A discrete process that fundamentally (but not necessarily irreversibly) results in change in the biophysical, social or economic components of a system from one form, function or location (state) to another (Park et al., 2012)

Adapted from Brown et al. (2013b)

From Table 1, it is noteworthy is that the concept of transformation has been applied interdisciplinarily and in no consistent manner whatsoever. The understandings of the term particularly in social science are diverse, fragmented and contested (Brown et al., 2013b). Making an allowance for the given examples of transformation, I will purposefully showcase two of the major types of transformations that have caught widespread attention. These are social change and global change. During the course of trying to structure my thesis, I was confronted with questions, for instance from peers wanting to know whether my study would fundamentally be a social change or global change study. Their asking can be understood when considered along the lines that social change and global change are often seen as two divergent mainstream approaches to change. Nevertheless, the questioning from my peers also seemed to suggest that I had to ultimately choose one concept of change over the other. It is in this light that I find it imperative to discuss the two concepts against each other, as I attempt to rationalize why neither will be used as a stand-alone framework in my study. This will also serve as a means of justifying the delineation of environmental change in relation to

my study. So, before proceeding on to re-marry the broken down terms 'environment and change', I seek to shed light on social change and global change.

Social Change

The concept of social change is largely carried in the social sciences. The concept was first used in a dissertation by Samuel Prince in 1920. His study introduced social changes as being social organization that results from catastrophe, and used the Halifax explosion of 1917 to demonstrate this logic. According to Prince (1920), the catastrophe which led to the destruction of life and property brought about social change in the sense of (1) disintegration of the reproductive system of society (home and family), (2) disintegration of regulative systems (law and order) and (3) disintegration of sustaining systems (goods and services). In sum, the catastrophe resulted in the disintegration of social order, otherwise leading to social disorganization. Despite the implied negative change, Prince noted that catastrophe also has the proclivity to bring about positive change, in the form of innovation, his reasoning being that, in normal times, society does not openly embrace change, at least not without resistance. Given the time of his writing, he cites Thomas (1909) who, describing the steps taken by different cultural groups towards change stated that the only world in which change is at a premium and is systematically sought, is in the modern scientific world.

In the modern view, the concept of social change still depicts transformations to social organization (Haferkamp & Smelser, 1992), but is used more to allude to significant alterations of the social structures and manifestations of such structures embodied in norms, values and cultural products and symbols (DeVos, 1976, p. 8). Hence the focus is on alterations of behavioural patterns, social relationships, institutions and social structure over time (Sztompka, 1994). The concept takes into consideration both endogenous and exogenous influences that alter social organisation, and these are viewed within the traditional-modernity dichotomies. Emphasis is placed on transitions from simple homogenous societies to complex and highly differentiated ones (Marshall, 1994). Greater emphasis is placed on changes in social interdependencies and inequalities, as well as how social institutions adapt along this continuum of developmental growth (Spybey, 1992). From Harvey's modernistic viewpoint, part of the impetus for examining social change is that,

> *the production of images and discourses is an important facet of activity that has to be analyzed as part and parcel of the reproduction and transformation of any social order* (Harvey, 2012, p. 3)

Based on the given descriptions of social change, this concept will not suffice as a standalone empirical tool aiding a balanced understanding of environmental change. This is primarily because the concept of social change does not enable a full grasp on coupled human-natural systems and the attendant vulnerabilities, neither does the concept give pre-eminence to issues of sustainable development. In discussions of social change, there is instead a tendency to generalize about any 'change' of a given logical subject in the course of time (Harvey, 2012) paying special attention to social order dynamics due to change.

Altogether, the concept of social change is broad. In this study, when I talk of social processes of change, I will be talking about changes in the social, economic, political and demographic conditions of society. However because social processes of change will be considered as part of environmental change, central to this study are those whose effects negatively impact the things that people value, while also undermining their abilities to cope. By this, I refer to those processes that impact negatively on environmental quality as well as social quality and equality in so doing presenting risk to people's lives. For indeed, when the term environmental change is used ordinarily, it relates to negative change (Fraser et al., 2003). It is that change for the worse (Barnett & Adger, 2010), or undesirable change (Adger et al., 2004) that becomes a cause for public concern (Berkhout et al., 2003). As such, an analysis of negative social processes of change is crucial because,

> *social processes [can] generate unequal exposure to risk by making some people more prone to disaster than others, and these inequalities are largely a function of the power relations operative in every society* (Hillhorst & Bankoff, 2004, p. 2)

Global Change

In contrast to social change is the concept of global change. This concept is often referred to as global environmental change (GEC), particularly by those schools of

thought who view environmental change as being purely biophysical in nature (Stern et al., 1992). As would be expected, the concept follows the strictest designation of the term environment. It views the components of environmental change as being intertwined through a complex series of biogeochemical processes (IPEC, 2003) that are propelled by anthropogenic activities (Oldfield, 2005; Steffen et al., 2005). The main motivation for examining global change is to study,

> the 'Anthropocene[17]'… a new geological era in Earth's history, one in which people take centre stage as the defining geological force…humans changing global environments…individually and collectively shaping the direction of planetary and social evolution (ISSC/UNESCO, 2013, p. 4)

The notion and conception of global environmental change (GEC) will be discussed in subsequent sections. But it is crucial at this stage to highlight the problematic and contested nature of the term (Price, 1989). For instance, despite being used synonymously with global change, some studies suggest that the two are not the same. This has resulted in confusion among those wanting to fully understand environmental change.

To illustrate this confusion, although global change is typically used to refer to biophysical processes of change, Leichenko and O'Brien (2002) claim a synchronicity between global climate change and global economic change. Their study, in fact, grants that both are part of the fluidity of global change. A separate study by the same scholars also notes that although GEC and global change are often thought to be one process, GEC and globalisation are seen as double exposures of global change (Leichenko and O'Brien (2008). In both instances, the scholars do not pretend that global changes are purely biophysical in nature, neither do they profess that GEC and global change are one process. Instead, they attempt to show that GEC is yet another type of global change.

Interestingly, Liverman et al. (2005) attempt to resolve the confusion by arguing that global change now embraces a variety of research issues including those relating to economic, political and cultural globalisation. Nonetheless, their contribution fails to

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[17] Anthropocene is a geopolitical term used primarily to denote to the current geologic era.

solve the conundrum which they still present as *"global (or global environmental) change"* (p. 267). Also, their study generally suggests that the two remain largely centred on biophysical processes and that the two are in fact one. Yet Brklacich et al. (2010, p. 35) still appear to suggest otherwise in posing the following research question:

> *How would global change, including but not limited to GEC, reshape human vulnerability...?*

Taken summatively, a critical analysis of the term global change shows mostly divergences. On one hand, some, mainly social scientists, often take it to be an all-inclusive phenomenon. On another, mainly natural scientists view the term as being rigidly biophysical. To add force to this claim, it appears that the early sponsors of the global change research in the 1980s had purposely sought to exclude the formal participation of social sciences (Kates, 1987). The absurdity of it lies in the fact that from a global change perspective, social aspects of environmental change were regarded as an outcome to be studied once the 'science' was better understood (Leichenko & O'Brien, 2008). Until recently, much of the social science contributions to the global change debate are said to have been undervalued, yet as this thesis argues, environmental change is as much a social problem as it is a natural science phenomenon.

A study by Schellnhuber et al. (1997) entitled the 'Syndromes of Global Change' attempts however to bridge this gap. The Syndrome concept rests upon the assumption that global change phenomena cannot be resolved into isolated changes occurring within Earth System spheres such as hydro-atmo-anthro-sphere. Analogous to medicine, the Syndrome concept points to co-occurrences of different symptoms, as would a cough or fever in the cold. Two of the most pertinent forms of syndromes to this study are the Sahel and Rural Exodus Syndromes. The Sahel Syndrome is typified by the over-use of marginal land, while the Rural Exodus Syndrome is typified by the degradation of natural resources due to the abandonment of traditional agricultural practices (see Chapter 7). Symptoms under such syndromes include land degradation, social erosion, loss of soil fertility and increased food insecurity. Both syndromes derive from the socioeconomic characteristics of place, where the socially excluded tend to be at the

forefront of change. Rather than move away from isolated analyses of the Earth system, the Syndromes concept seems to have maintained a mechanical approach, which is at any rate global

In view of the arguments presented under this section, it is apparent that on its own, the common understanding of the global change concept is non-neutral, as it tends to focus only on biophysical change while eclipsing social processes of change. Therefore, it will also not suffice as a standalone empirical tool aiding a balanced understanding of environmental change. It is important still to note the emergence of a sub discipline of global change that focuses on the 'human dimensions' of environmental change[18]. This strand of critique proliferated producing a new field of study that,

> *is concerned with the causes and consequences of people's individual and collective actions in terms of the ways in which human activities affect the environment, the socio-economic impacts of global environmental change and the individual and societal responses to those changes* (Jager, 2003, p. 69)

Despite this, the concept of environmental change remains largely influenced by scientific scholarship, paying little regard to social processes of changes (NRC, 1999). For the continued lack of a holistic approach to analysing environmental change, some Geographers have posed several questions one of which reads:

> *How can the dynamic interactions between nature and society including lags and inertia be better incorporated into emerging models and conceptualizations that integrate the Earth system, human development, and sustainability?* (Kates et al., 2001, pp. 641-642)

The lack of applicable tools for holistically analysing the coupled human-environment system is all the more a major set-back in the body of knowledge (Murungweni, 2011).

Reconciling the Concept of Change

The common thread tying together social and global change is the processual feature of transformations to fundamental attributes of systems, with social change being largely

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[18] This sub discipline has been largely tackled by Geographers like Robert Kates (see Kates et al., 2001); Diana Liverman (see Liverman et al., 2003) and Neil Adger (see Adger et al., 2005).

biased towards social systems and global change towards ecological systems. A careful consideration of these views clearly leads to the conclusion that the concept of change is a broad concept with no distinct boundaries (O'Brien, 2012; O'Brien & Sygna, 2013), where the transformations involved have constantly come under dispute, particularly in social science (Brown et al., 2013b). For reiterative purposes; on one spectrum, transformations are used to imply changes in social *structures* and /or social organisation. This would include shifts in human agency in response to environmental change (Brown et al., 2013b). On another hand, they are used to refer to changes to both social and ecological *systems* (Leichenko & O'Brien, 2008; O'Brien & Sygna, 2013).

My understanding of this is that structural transformations are often a result of systemic transformations. This is based on the awareness that structural transformations occur when ecological, economic, or social (including political) conditions make the existing system untenable (Walker et al., 2004). It is something that mirrors the anthropological view of transformation, where changes to a system may provide 'a way out' (Dwyer & Minnegal, 2010). As a result, structural transformational changes offer an escape from persistent trajectories such as poverty, hunger, civil strife and social-ecological mismanagement (Chapin et al., 2009). In direct relation to this study environmental changes, as the systemic transformations to socio-ecological systems (Vogel & O'Brien, 2004), cause people to respond through structural transformational changes, for example in value systems, regulatory, legislative or bureaucratic regimes (O'Brien, 2012).

Alternatively, there is always the option to not transform. From an interview with climate scientist John Holdren[19], Kolbert (2009) found that humans have three choices in responding to climate change: mitigation, adaptation or suffering. Of these the second choice, adaption, denotes a transformational change. Transformational adaptation is based on a number of socioeconomic factors, such as access to technology, information, infrastructure including social and economic capital (Nelson et al., 2007; Owaygen, 2010). This means that those with little or no access will maladapt and remain vulnerable to successive encounters (Eakin & Luers, 2006). On this basis, adaptation is a political process to which there are no even outcomes (Eriksen & Lind, 2009). Although it

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[19] John Holdren is the chief science adviser and director of the White House Office of Science and Technology Policy in the administration of President Barack Obama.

is not the main thrust of this study to look at this additional definition of transformation, given the objectives of the study, it would be impracticable to overlook how the people affected by socio-ecological changes have been coping with the effects. On that account, a definition that carefully sums up the two-pronged character of transformations in environmental change literature states that they are,

> *a fundamental change in socio-ecological systems resulting in different controls over system properties, new ways of making a living and often changes in scales of crucial feedbacks. Transformations can be purposefully navigated or unintended* (Chapin et al., 2009, p. 241)

Ultimately, when the term 'transformation or change' is used in social sciences, whether for biophysical or social systems, what is agreed on is that there are unequal consequences for human systems. Hence the common talk about the 'winners and losers', 'included or excluded', 'privileged or marginalized' (Leichenko & O'Brien, 2008). This will be discussed further in Chapter 4.

Environmental Change

In remarrying the words environment and change, I approach environmental change as not just a term, but a concept that implicates many processes of change that are both biophysical and social in nature (see Table 2 below). My preferred definition of environmental change is that of it being,

> *a collection of transformations to the coupled human-environment system that threatens the sustainability of both ecological and social systems* (O'Brien & Leichenko, 2010, p. 157)

When considered in totality, environmental changes are extensive, menacing, and their outcomes are uncertain (Chapin et al., 2009). Since they are wide-ranging, attempting to canvass all the effects of the changes could be a highly mammoth and convoluted task (Little & Cocklin, 2010). However, if met with unpreparedness, these changes potentially present threats to people's livelihoods (Eakin & Luers, 2006) and human security in general (Matthew et al., 2010). The element thus unifying the processes of environmental change is their risk potential to human beings and ecosystem services.

Table 2: Examples of social and biophysical processes

Social processes of change	Changing social capital	Change in social networks, relations of trust.
	Changes in institutional services provision	Reduced government provision of basic social services, subsidies and farming inputs.
	Land reform	Redistribution of land.
	Conflict	War, violence, grabbing and tensions over resources leading to population displacement.
	Marginalisation of groups	Marginalisation of rural farmers and women such as in terms of incomes and prioritisation and government support and interventions, loss of voice and influence in decision making processes influencing their well-being.
	Changing social vulnerability	Altered ability to respond to environmental changes, exposure to multiple stressors including climate change, HIV/AIDS, Structural Adjustment Programs.
	Spread of HIV/AIDS	Increased prevalence and exposure to HIV. Diminished health and income due to AIDS infection with costs to families, livelihoods and food security.
	Livelihood transformations/ Changing viability of farming	Diversification within and beyond farming. Shifting incomes from sales of produce, changed costs involved in agricultural production and altered access to capital, labour and finance, reduction in cultivated land or abandoning of agriculture altogether leading to deagriarianisation/depeasantisation.
	Lifestyle changes	Economic pressures leading to increase in risky behaviour including sexual promiscuity, substance abuse, crime and a general sense of lawlessness.
Biophysical processes of change	Changes in flora and fauna	Changes in domestic and wild animal populations, altered vegetation cover, plant species composition and richness, loss of biodiversity.
	Changing soil properties	Changes to physical properties (sealing, crusting and compaction of topsoil, loss of water holding capacity, water logging and aridification) and chemical properties (organic matter and nutrient loss, salinization, acidification and pollution), soil erosion.
	Climate change and variability	Long term increase in temperatures, drying and changed patterns of rainfall; variability in climatic conditions including incidence of droughts and floods.
	Increased water stress	Reduction in water availability and quality for economic and domestic use.

Adapted from (Eriksen & Watson, 2009)

Towards the Justification and Contestation of GEC

Although the concept of global environmental change has been defined, it is important to explore the origin of the concept before moving on to discuss the crucial debates surrounding the politics of inclusiveness implied by the 'global' connotations, but overlooked in practice.

The collocation of the terms global and environmental change is not merely semantic, but is a result of the understanding that certain forms of environmental change are global or universal in nature (Stern et al., 1992; Turner et al., 1990). As outlined in Chapter 1, the conception of environmental change as 'globally' significant came about due to increases in global dialogues concerning mounting environmental problems. Examples of environmental problems on the increase and with sweeping consequences include global warming and global climate change (Pelling, 2003). As implied by the global connotations, environmental changes of this nature are experienced globally (Matthew et al., 2010). Since the publishing of the Brundtland Report (1987)[20], the mounting environmental challenges were seen to have grown beyond the scope of any national government to address alone. Hence it became more universally agreed that global conventions, treaties and protocols were to be developed (Berkhout et al., 2003). It was believed that the international responses supported by universal commitments would function as platforms for local governments to act in their capacity as global citizens protecting 'public goods' at global level (ibid). As opposed to simply pursuing unique national interests, the unified commitments would cumulatively be for the common good of the global community. It is in the scientific circles however that the concept of environmental change was coined as Global Environmental Change (GEC) (see Price, 1989).

GEC and the Politics of Homogeneity

Global efforts appear to be the most befitting responses for confronting the 'global tragedy' of GEC. Yet still there are proposed challenges arising not only from the unfair

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[20] Also known as 'Our Common Future', the Brundtland Report was drafted following the 1987 global plenary on environmentalism called the World Commission on Environment and Development (WCED) otherwise known as the Brundtland Commission. The report is popular for ushering in the notion of sustainable development.

predilection for biophysical processes but also from the globalisation and homogenisation of environmental problems. From a broad perspective, the Hettne (1990) discourse, centred around viewing local problems through the lens of a single world system logic, provides some insight into this homogenisation. As he begins his argument, Hettne (1990, p. 16) cites Louis Emmerij who exclaimed that 'There is no World crisis, There is a European crisis, a Latin American, and an African crisis!' Emmerij was referring here to the hierarchical world order (the Three Worlds theory) created to mark the hierarchy of the richest to the poorest of nations. The challenge with this classification is the suggested permanence of condition, and the bullying of the least developed by the more developed countries (Obeng, 1980). Otherwise, the distinctions enable a clearer understanding between the different artificial worlds and problems peculiar to these worlds. Like Hettne, I too agree with scale partitioning more for methodological rather than theoretical reasons, as will be explained further in the next paragraphs.

Firstly, Seidenbaum (1985) suggests that global issues did not exist till the aftermath of World War 2. During this period, the phrase, 'global' gradually metamorphosed into a façade, employed by those wanting to flaunt their unlimited 'compassion' towards lesser states. Seidenbaum bases his commentary on an essay by Hardin (1985), called *Filters Against Folly: How to Survive Despite Economists, Ecologists, and the Merely Eloquent*. In this essay, Hardin questions the implications of the term global, for it seems to suggest the formation of global commonalities and the commonisation of global resources. Hardin's assessment does not emerge out of altruism, but rather out of the concern as to why richer nations should have to share the burden of poorer nations. In light of its dubious profitability, Hardin sees no point in globalising problems if the global will fail to create solutions for the local. In comparison, Seidenbaum's analysis maintains that a global arrangement was underlined by sinister motive, and would heighten the winners and losers dichotomy.

Secondly, Eriksen (1999), proposes that the globalisation of problems reflects the existence of localised and bounded entities that ought to be represented within the global, but are often not. The suggestion of a global, followed by the omission of the local in the global, is what makes the globalisation of problems a fallacy. He also states

that the creation of bounded entities sets them up against each other, where they become comparative elements of analysis. This way differences are actualised, the previously veiled inequalities are laid bare, and conflict may be triggered where the overpowered start to react to the suffering and injustice they endured at the hands of the dominant. As an example, African philosophers have criticised the globalisation of the Western development model that seeks to reduce a multi-cultural world to a Western oriented monoculture. In the process, they have evoked the four centuries of slavery and a century of colonialism that Africa has suffered at the hands of the West (see Gyekye, 1997; Osabu-Kle, 2000). Equally significant, Eriksen states that within the globalised façade, political rhetoric becomes the norm, universalism thrives, and local experience is dwarfed and drowned in generalisations. Overall, the suffering of the underprivileged may be glossed over.

Thirdly, according to Elliott (2006, p. 74), the more human–environment relations have become globalised, "*the more spatially and temporally uneven their causes and consequences seem to be*". Although this is the case, the connotations of the term 'global' insist on the collectivisation of environmental problems. This tends to be justified by the notion that, 'we are in this together' (Dow, 1992). Whereas, in reality, 'togetherness' excludes issues of differential susceptibility and the possibility that some may benefit from environmental change (Liverman, 1990). Therefore in spite of the way in which the 'global' connotations are optimistically framed, they do not signify the non-uniformity in the distribution of the impacts of environmental change. Neither does the actual term GEC suggest the disparities in environmental costs or burdens brought about by environmental change.

To put this further into perspective, it is now well accepted that developing countries are frequently affected even by some environmental change for which they have a negligible contribution (Dalby, 2009). For 20% of the world population, mainly in the global North, is responsible for appropriating 80% of the world's natural resources (Sewankambo, 2009), yet predictions reveal that the loss of healthy life years due to GEC is 500 times greater in Africa than say, Europe (ibid). Also, due to the changing political economy of hunger, of the 36 countries considered to be the poorest worldwide, 21 are African (Kabasa & Sage, 2009), and of the 923 million chronically hungry people

worldwide, 300 million are African (ibid). The Third World moreover has the least adaptive capacity to cope with these changes (Hahn et al., 2009). This will be discussed further later in this chapter, but for now it is important to note that when considered in terms of the winners/losers binary, the framing of environmental change as global presents an ethical dilemma[21]. For, because of the globalisation of problems, the winners are most likely to circumvent costs (Hardin, 1985). Indeed, evasion is possible under the pretext of the already stated idiom, 'we are in this together'.

In the final analysis, due to shortcomings in assimilating differential susceptibility to risk across dimensionalities (e.g. geographical, social), the homogenised global connotations of environmental change fail to capture the true reality of environmental change. Hence the constant contestation of the term (Adger & Brooks, 2003; Price, 1989). The implied definitional problem also seems to be rooted in the meaning and usage of the term which appear to shift in accordance with audience and setting (O'Riordan & Rayner, 1991), in turn making it harder to reconcile global ideologies to localised realities (Turner et al., 1990). Over and above, while emphasis on global cooperation as the solution to protecting global commonalities is creditable, the shadowy and elusive character of the globalised character of environmental problems poses challenges in administering adequate responses (O'Riordan & Rayner, 1991) to localised vulnerable groups.

GEC and the Politics of Hegemony

Linked to the homogensiation of the GEC discourse is the way in which the global North exerts its hegemony in the global change discourse. The hegemonic ascendancy has led to the stifling of African voices, and those of other poor nations in negotiations concerning global processes such as climate change (Deressa, 2014). In terms of global emissions, Africa has the least contribution to global changes such as climate change (Chagutah, 2010; Deressa, 2014; Lisk, 2009; Sewankambo, 2009). For example, Zimbabwe's last greenhouse gas (GHG) emissions report in 1998 showed that Zimbabwe was a net sink of carbon dioxide (Feresu, 2010). This means that it was absorbing more

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[12] Other notable differences in susceptibility to environmental risk exist along the social hierarchy, for instance between social groups found within the same locality, such as the rich and the poor as well as men and women where those found on the social margins are likely to bear much of the environmental burden (Cutter, 1995; Cutter et al., 2000). Issues of gender differentiated risk to environmental change will be discussed in the chapter on gender.

than it was emitting. As another example, by the year 2000, Africa had only contributed at least 3.6 % of the world's total GHG emissions. This is with the exception of South Africa which features large among the highest global emitters (Scholtz, 2010, p. 2). Africa however continues to suffer some of the most environmental cost for which it has negligible contribution[22]. But of course the suffering is exarcerbated by weak socioeconomic and political structures which present the continent with adaptation challenges (Willms & Werner, 2009).

Notwithstanding this, the construction of Africa's problems is undertaken by international agencies and the formulation of response apparatuses is also carried out at this level (Stephen, 2004). Although implicit, the exerted hegemony reflects issues of power and control where the voices of the poorer and weaker nations are stifled in negotiations of problems to which they are the most vulnerable. Concerning this, Lisk (2009) maintains that:

> *Poorer nations and regions have neither the wealth nor strategic capacity to impose their will on global climate change negotiations* (p. 12)

Scholtz (2010) agrees, stating that:

> *African government participation has had little impact on the outcome of the negotiations and constituted a 'muted voice' during climate change negotiations* (p. 6)

The China led G77[23] 'walk out' at the 2013 COP19 Climate Change Conference in Warsaw illustrates the frustration of poorer nations. The developing countries were enraged over the nonchalant demeanour displayed by developed countries during the conference proceedings (Vidal, 2013). The rage was also inflamed by the proposed postponement of

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[22] Sensitivity is heightened by the fact that most African economies are agro based. They are, dependent on a climate-sensitive natural resource base and rain-fed farming (Deressa, 2014, p. 29).

[23] According to Scholtz (2010), Africa's solidarity with the position of G77 states is in itself a problem. This is because Africa despite a negligible contribution of GHGs is grouped with industrialising countries that emit a considerable amount of GHGs, in particular, India and China. The grouping is seen to result in the failure of African states to articulate their distinct interests. Nevertheless, Scholtz also believes that the grouping is grounded in the belief that, the less industrialised African states do not have the power to negotiate with developed states, and that it is therefore advantageous for them to co-operate with China and India.

the loss and damage question (by developed countries) to post 2015. Hence, representatives from 'poorer' countries (a total of 132 countries) and green groups had walked out amidst the slow-paced fractious climate change negotiations.

Harjeet Singh, an ActionAid spokesman on Disaster Risk Management (cited in Vidal, 2013) commented that:

> *The US, EU, Australia and Norway remain blind to the climate reality that's hitting us all, and poor people and countries much harder. They continue to derail negotiations in Warsaw that can create a new system to deal with new types of loss and damage such as sea-level rise, loss of territory, biodiversity and other non-economic losses more systematically* (ibid)

In relation to this, questions may be asked about the obligations of developed countries to assist developing countries with the loss and damage fund. The answer is found in Article 4:4 of the United Nations Framework Convention on Climate Change (UNFCCC) which states the following,

> *the developed country Parties and other developed Parties included in Annex II shall also assist the developing country Parties that are particularly vulnerable to the adverse effects of climate change in meeting the costs and adaptation to these adverse effects* (Scholtz, 2010, p. 4)

On a more procedural note however, Deressa (2014) tries to explain the marginalisation of Africa's voice also in the climate change negotiations by affirming that,

> *despite that Africa is the continent most affected by – and perhaps because it is also the smallest contributor to the man-made effects of – climate change, Africa's voice in international climate change negotiations is very limited...African delegates are often marginalised, underrepresented, uncoordinated and ineffective in influencing policies favouring the continent...The implication is that African interests are not adequately taken into account* (pp. 29,30)

Frost (2001) otherwise argues that African interests are not taken into account because the Conference of Parties (COP) delegations from African countries are usually

outstripped both in terms of number and expertise, by those from developed countries. He therefore states that:

> *Given the complex nature and fast pace of negotiations, as well as the increasing importance of informal consultations and side events, including discussions with potential project partners and donors, the small size of delegations must place developing countries such as Zimbabwe at a disadvantage* (p. 45)

Both Scholtz (2010) and Chagutah (2010) agree with Frost's view and in relation to Zimbabwe, Chagutah notes,

> *Zimbabwe's participation at regional and international climate change forums has suffered because resources to build a stronger and larger negotiating team for the country have been unavailable* (p. 7)

The impression is that Africa still lacks synchronised responses to climate change because it is grappling with many other issues that are not only ecological in nature. This will be discussed further in the section on Environmental Change and Africa. Regardless, the result has been that African interests have not been adequately taken into account at the global level (Deressa, 2014). Such side-lining of the immediate concerns of the weaker and poorer countries puts localised realities in the shade of global concerns and also attracts global policy instruments that are insensitive to local needs (Salih, 2001). Policy needs to be reflective of the poor in micro-localities. For they are the ones who are often disadvantaged and most vulnerable, also having very limited resources to adapt to impacts of change (Sewankambo, 2009). To all intents and purposes, obscured and distorted local realities have negative implications for development, more so for sustainable development which is the guiding principle for global development.

GEC and the Politics of Scale

As a result of the homogenisation of the GEC discouse and the hegemony of richer nations, attention seems to have been withdrawn from community and locality and transferred to global processes that in some cases are indifferent to the reality of those at the receiving end (Salih, 2001). Incidentally, it is believed that in farming communities such as those in remote places, the ability to comprehend globally may be limited by culturally restricted knowledge, such that the local people may never know about the

outside world beyond their next village (Sathian, 2011)[24]. Even so, Sathian cautions that, not everyone in such remote places wants the rest of the world to be their frame of reference. She thus critiques the common global change slogan 'think globally, act locally', citing that it only works when the place you are in easily fits into a wider global context. All things considered, due to the domineering 'global' discourse, the daily environmental changes faced by the poor are often overlooked. In turn, localised environmental changes are marginalised and do not command enough attention or the solutions that they should (Stephen, 2004). Yet as explained below, scale issues impact highly on vulnerabilities to environmental change,

> *The generalisation of case studies and their relevance in similar situations elsewhere is always a difficult question. At the other end of the spectrum, global vulnerability assessments are based on aggregated data and rather crude assumptions about underlying mechanisms being assessed. Even with increasingly finer spatial resolution of global and regional data sets, the question remains whether local specifics can be adequately represented and understood in a global context. [Because] Global overviews are typically falling short in including potentially important local specificities* (Kok et al., 2015, pp. 2,3)

Proponents of macro-analyses argue however that too much emphasis on micro-realities and household dynamics in isolation of regional and global processes could still lead to the marginality of contributions of micro-scales in policy formulation at macro-level (Magistro & Roncoli, 2001). They justify the use of regional and global data sets, citing that environmental changes whose actions have broad consequences enable broad applicability and understanding in dealing with common environmental problems (Turner et al., 1990). Having said that, macro-analyses that allow for formulations of decision-making at micro-level can be useful at bridging the gaps between scale. That is, through establishing symmetries and complementarities across spatial scales and

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[24] Wisner et al. (2004) call this a temporal distantness, implying simply, being out of touch with external reality (also see Bernstein, 2013). This suggests that some people in remote areas may be more anxious about their immediate surroundings along with the socio-ecological risk that is relevant to these surroundings, while believing the complexities of the interaction between the biophysical environment and social processes over long distances to be a privilege for intellects (see O'Riordan & Rayner, 1991).

facilitating knowledge at global level, which can be only built through analysing smaller spatial scales (Stern et al., 1992). Nonetheless, the danger that remains with intertwining scales is that, there is always an inclination towards a particular scale. As already noted, the tendency is often the obscuring of the micro-scale. As such, macro-analyses generally eclipse true depictions of local realities in global reflections of local realities (Bassett & Crummey, 2003). Hence, Hardin (1985) cautions researchers to never globalise a problem it if can possibly be dealt with locally.

On balance, my main interest is to look closely at neglected micro-realities to ascertain the effects of environmental changes through a gendered lens. Therefore, I maintain that the analysis of the local rather than the global is essential in identifying exceptions over broad generalisations. This allows for a better understanding of how people interact with their physical environment and within their social environment (Fotheringham, 2000). For as Adger and Kelly (1999) also argue,

> *socio-economic and biophysical processes that determine vulnerability are manifest at the local, national, regional and global level but [that] the state of vulnerability itself is associated with a specific population. Aggregation from one level to another is therefore not appropriate, and global-scale analysis is meaningful only in so far as it deals with the vulnerability of the global community itself* (p. 253)

The next section will continue with the contestation of normative environmental change before linking it to the concept of environmental change in Africa.

Treading through Competing Ideologies: Selecting a Conceptual Framework

It has been noted that environmental change, particularly when linked together with global connotations, is used typically and specifically to refer to physical changes to the environment. However, an exposition of the beginnings of the theory of global change tells us that the phrase that has now been branded an 'earth system' science emerged in social sciences in the 1970s (Price, 1989). According to Price, during this period, the term was used primarily to refer to changes in international social, economic and political systems. The geocentric shift of the rigid interpretation and application of the term then

took place in the 1980s (ibid). In championing this claim, Kates (1987) affirms that indeed, Earth System based global change research emerged in the 1980s. This detail is also substantiated by Liverman et al. (2005). Kates further discloses that in 1986 the International Council of Scientific Unions purposively adopted a global change study whose intention was to,

> *describe and understand the interactive physical, chemical, and biological processes that regulate the total earth system, the unique environment it provides for life, the changes that are occurring in that system and the manner by which these are influenced by human actions* (p. 531)

While, as many argue, due to domineering anthropogenic influences, we are now living in the Anthropocene (Dalby, 2007; Gammon, 2013; ISSC/UNESCO, 2013; O'Brien, 2010), the global framings of environmental change insist that environmental changes are purely physical (O'Brien & Leichenko, 2010). One would expect that the observations of environmental changes being made would be compatible with what is being observed, that is, the synchronicity of social and ecological processes in environmental change. Regrettably, this is seldom the case as the discussion on global change earlier in this chapter has shown. Hence, it is thought that the inflexibility in the interpretation and application of the term environmental change is largely brought on by interdisciplinary issues, and in general, by the cooption of the environment and global change by those from natural sciences (Adger et al., 2005). Sardar (1999) considers that such inflexibility can be traced back to the compartmentalisation of disciplines by the West and the conferment of the moral high ground to science. He argues that the claim to the title of orthodox ideology by science presents an epistemological menace to the creation of knowledge. Supporting this notion, Redclift (2005) notes that,

> *the very parts of the scientific tradition that have driven the frontiers of knowledge heuristically have imposed boundaries, taxonomies and categories on nature, and have been used to make judgements that reflect human concerns and political interests* (p. 222)

The compartmentalistion and cooption of the environment has survived unscathed into the twenty-first century. This is because, "*the power of the West resides in its power to define [and] non-Western civilizations have simply to accept these definitions or be defined out of existence*" (Sardar, 1999, p. 44). In comparison, ideologies with stronger normative dimensions also make it appear as though definitions precede all manner of judgment' (Butler, 2010). Yet, the objective of learning "…*is not [so as] to insist upon neutral description of phenomenon, but rather to consider how phenomenon…becomes defined in ways that are vague*"(p. 156). As will also be seen in Chapter 4, similar rigidity in the interpretation and application of the concept of gender does exist which influences how the valuations of vulnerability for men and women are typically arrived at. Nonetheless, Redclift's sentiments confirm that ideology can cultivate a non-thinking disposition that obstructs people from critiquing judgement. Under such circumstances, Butler (2010) argues that we end up judging "… *a world we refuse to know and our judgement becomes a means of refusing to know that world*" (p. 156). To this end, an integrative way of looking at the lived experiences of local environmental change and the attendant vulnerability would be one which interrogates the habit of the non-thinking supplication of the normative (Gilson, 2013).

Two theoretical lenses used often to give a strong logical basis to research on social vulnerability in relation to environmental change include Resilience Theory (RT) and the Sustainable Livelihoods Approach (SLA). Like numerous theoretical frameworks, both have conceptual limitations that are a result of the normative constraints of the frameworks. This is not to say that the theoretical frameworks underlined above do not have important normative dimensions. Respectively, RT thinking which was introduced first by Holling (1973) in ecological studies has the idea of system flexibility as one of its crucial normative dimensions. This follows that a resilient system should absorb disturbance without undergoing structural and functional change or should demonstrate the ability to withstand shocks (Fabinyi et al., 2014). RT thinking thus focuses largely on informing transformational adaptation to minimise risk and support recovery when a system is confronted with environmental change (Brown, 2013).

On the other hand, following the introduction of the sustainable livelihoods thinking by Chambers and Conway (1991), the SLA was developed by the UK Department of

International Development (DFID) and has been replicated by several developmental organisations which include; CARE, Oxfam and the United Nations Development Program (UNDP). Unlike RT, the SLA interrogates the vulnerabilities and human capabilities of those confronted with environmental change (Carney, 2003). Thus, the SLA evaluates the (1) vulnerability context (i.e. shocks, trends, seasonality), (2) livelihood assets (i.e. human, natural, financial, social and physical capitals), (3) tranforming structures and processes (i.e. policies, institutions) (4) livelihood strategies and (5) livelihood outcomes. The SLA's ability to move beyond an income approach to poverty towards a multiple livelihood asset approach is considered to be highly useful as this can result in detailed livelihood analyses (Morse & McNamara, 2013).

In careful consideration of the conceptual limitations of the two theoretical lenses, it appears that RT thinking is more system oriented vs. people centred. That is, it treats 'exposure units' as components of a complex whole, where there is a clear labelling of systems as being either social, ecological or as being coupled socio-ecological (Brown, 2013)[25]. To simplify the systems approach, Fabinyi et al. (2014) explain that the social is viewed in terms of organized social units, such as communities, and system structures, in particular, institutions. Hence the level of analysis is not the individual or the household but the social group.

In contrast, the SLA is people centred and is distinguished for its use of ethnographic and participatory approaches to elicit data. As Morse and McNamara (2013, p. 43) argue however, for all the people centred rhetoric of the SLA, peope are strangely invisible. The two scholars note that, while considerable focus is paid to capitals, one of which is human capital, the people are nowhere to be found[26]. Also, the SLA is said to make note of gender considerations, but without necessarily privilleging the voices of women

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[25] Based on this thinking, the analyses of coupled social and ecological systems (SES) is justified because the human and biophysical domains are interdependent (Walker & Salt, 2006). So "while a society may be able to cope well with change from a social perspective (e.g., improving irrigation technology and increasing agricultural subsidies), an evaluation of overall resilience must also include the sustainability of the adaptation from an ecological perspective (e.g., the ecological impacts of increased farming and groundwater pumping)" (Nelson et al., 2007, p. 399).

[26] Another shortfall of the SLA which is in relation to the capitals is that, it is unclear how to analyse and measure the capitals within the SLA (Morse & McNamara, 2013). As an example, in poor rural communities, physical capital such as land is not easy to measure, since in these communities land ownership is not clearly defined (see Chapter 4 for the valuation of the capitals available to the Zimbabwean rural men and women as guided by secondary data).

(ATHA, 2016). According to Carney (2003), several critics have as a result proposed the disaggregation of social groups in SLA with gender as a core concern. The SLA appears to share the foregoing limitation with RT thinking which on top of treating 'exposure units' as being components of a whole, does not disaggregate social groups based on markers of social difference[27]. The acknowledgement of coupled socio-ecological systems by the resilience thinking does indicate however an appreciation of the intricate relationship between humans and the environment, and most importantly, of the human influence towards socio-ecological changes. This is a strength of RT thinking which the SLA lacks. For, while the SLA takes stock of natural capital as a consideration of relevance to poverty, it does not draw extensively on environmental change as encompassing both social and ecological changes[28].

Altogether, as an alternative to dogmatic approaches to environmental change, a study by Lemon and Seaton (1999) provides a nonconformist approach that, although integrative in terms of highlighting vulnerability and adaptation, as well as social and ecological changes, fails to give emphasis to the livelihood capitals as the SLA does[29]. I attempt to reproduce this congruence model to demonstrate my conceptualised understanding of the processual events leading to environmental change and the corresponding vulnerabilities (see fig. 1). It is worth noting that at this point, the model does not incorporate a gender focus, but this will be addressed in Chapter 4.

By and large, to do away with confusion that is brought on by interdisciplinary parochialism, for the purposes of this study; global environmental change will be discussed short of its problematic global connotations. This disclaimer extends to the conceptualisation of environmental change and its associated processual phenomena that will be recognised by this study as encompassing socio-ecological change. This

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[27] Based on Fabinyi et al. (2014), resilience thinking does however tend to stress that resilient social systems are those that embrace positive attributes such as tolerance and diversity, fairness, autonomy, democracy, connectivity, knowledge and learning.

[28] Both counter development progress and are thus sustainability matters that need to be looked at together (Little & Cocklin, 2010).

[29] Analogous to adaptation is the concept of 'coping' which is alluded to severally in the thesis. Both coping and adaptation are components of a system's resilience. Coping however is more reactive, therefore, unplanned and short term. Also, it is often prompted by a lack of alternatives and is believed to encompass mechanisms some of which are unsustainable, in many instances degrading the natural resource base (See Chapters 9, 10 and 11), whereas adaptation is proactive, prolonged and is thought to encompass mechanisms which are sustainable, seldom leading to natural resource degradation.

move is also largely justified by the study's preferred working definition of environment, where the environment is regarded as being incorporative of both biophysical and social surroundings of human existence.

Figure 1: Congruence model for environmental change (1)
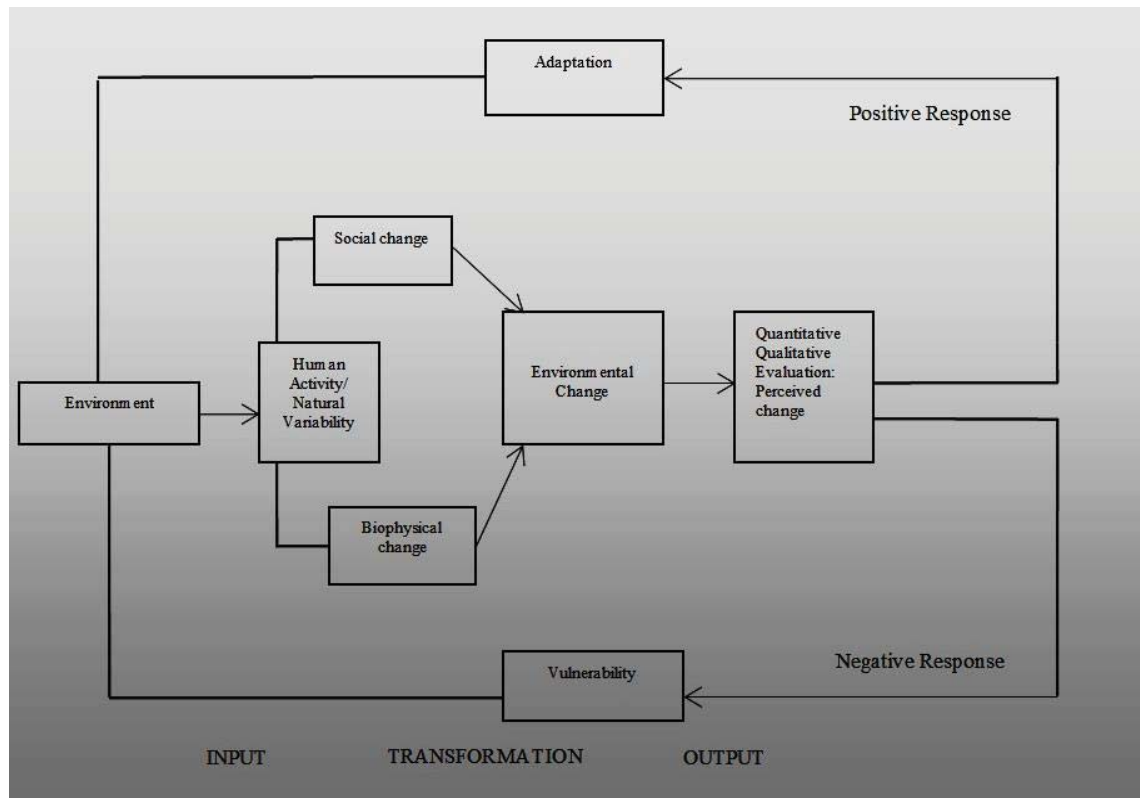
Adapted from Lemon and Seaton (1999)

Since environmental change is not a concept without form, it needs to be analysed from the perspective of the people experiencing change. Thus the next section will look at environmental change and Africa.

Environmental Change and Africa

Previous sections have shown that the term global environmental change is not only problematic on the grounds of rigidity, but is also misleading when considered in terms of scale and unit of analysis. This is because what we term global may not necessarily be reflective of local realities (Salih, 2001). Environmental changes have greater implications for the people experiencing change (O'Brien et al., 2004), where the people experiencing the effects of change can perceive change (Bassett & Crummey, 2003) and respond accordingly using available options (Lonergan, 1999). Thus, of enormous

importance to this study is the belief that perceptions about risk and responses to threats are key constituents that can be used as the 'sextant and compass' by which the landscape of vulnerability can be studied (Hillhorst & Bankoff, 2004, p. 4). It is on the basis of these assumptions that I make attempts to show that environmental changes first become evident at local scale and that local perspectives are key in understanding vulnerability to environmental change.

While environmental change is a reflection of people's lived experiences, much of the environmental change dialogue in Africa is carried out by intellectuals and human response agencies (Deressa, 2014; Devine-Wright, 2013) in the absence of local voices (Stephen, 2004). Absent from dialogue are predominantly the voices of the poor and marginalized, who at the same time have repeatedly been observed to bear much of the environmental burden. To illustrate a general case of exclusivity, Chagutah (2010) explains that the civic society in Zimbabwe is often excluded from the seminal processes of crafting environmental problems. He maintains that these terrains are frequently left to government bureaucrats and scientific researchers. The implications have been that environmental policy in Zimbabwe has been insensitive to local needs (Keeley & Scoones, 2000). Policy insensitivity to the reality of men in particular is also observed in gender policy in Zimbabwe (see Chapters 1 and 4).

On a global scale, many of the research and policy instruments on environmental change in Africa focus on global environmental problems such as global climate change and global warming. As a result, other forms of environmental change are side-lined. This inclination follows the global order that sees things from the privileged view of the Western world (Deressa, 2014; Lisk, 2009; Stephen, 2004). From this vantage point, the global order is marked by universality, predictability and stability and is then projected onto the local (Beattie & Schick, 2013). Policy making involving local environmental changes at a global level evokes the 'policy arrangement approach' by Liefferink (2006). As he points out, policy arrangements are often underpinned by four dimensions of a tetrahedron (see fig. 2). The four dimensions are actors, discourses, resources and power, and the rules of the game. Basically, whoever has power controls the discourse, hence existing and future policy discourses would be reflective of the views of those

with power. In essence, those actors with resources and power determine the rules of the game as well as the contents of the discourses.

Figure 2: The four dimensions underlying policy arrangements

Source:

Liefferink (2006)
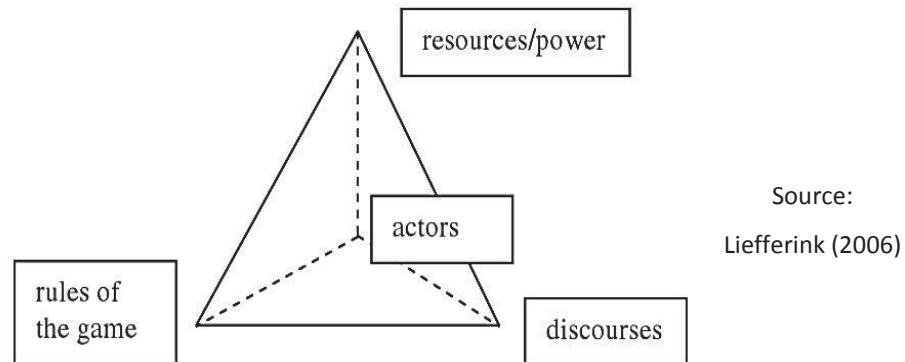
Although there may be crucial benefits of formulating policies for local environmental changes from the global vantage point, I contend that this has so far not been very beneficial as the local environments in poorer regions like Africa keep experiencing the same environmental changes, if not more (see fig. 3).

Figure 3: Divided World

Adapted from

Kates et al.

(2001)

From the global vantage point, vulnerability is also typically seen as being decipherable through rationalism (ibid). The global order does not seem to consider that, even as the world appears to be more global, this does not signify uniformity (Elliott, 2006). For a lot of developing countries, universality, predictability and stability are often hard to pin down. In such contexts, vulnerability sometimes defies rationality.

Embodying many regions where vulnerability may defy rationality, Africa bears variegated topographies, socio-demographic characteristics, environmental and socio-political systems. For African contexts, the matrix of stressors ranges from drought and famine, conflict over natural resources, natural resource financed armed conflict, large-

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scale expropriation of land and natural resources, deforestation and desertification, land degradation and biodiversity loss (Murombedzi, 2013). These result in a high disease burden, high mortalities (Madzwamuse, 2010), high fertility rates, prevalent poverty and volatile food security issues (Homewood, 2005). Also, according to a London-based study done on fragile states; as part of Africa's challenges is the general syndrome of state fragility and failure grounded on,

> *weak capacity to provide public security rule of law and basic social services, low levels of democracy and civil liberties; de-legitimisation and criminalisation of the state; rising factionalism; poor, socially uneven and declining performance; inability to manage political conflict; extensive interference by external factors; and in some but not all cases, outbreaks and armed insurgence* (Mbeki, 2011, p. 10)

Though the foregoing are not characteristic of all African countries, and while there is need to desist from generalising 'African' problems (Bassett & Crummey, 2003), the reality is that most African countries are faced with a multiplex of challenges of which climate change is only just one (Murombedzi, 2013). As a result Scholtz (2010) states that,

> *issues that serve as common ground for a united front are the vulnerability of African states, their lack of responsibility for the problem and their lack of resources to address it. It is important to use the latter shared concerns as a basis for co-operative measures regarding climate change* (p. 7)

The Discursive Dominance of Climate Change vs. Multiple Realities of Environmental Change in Africa

As has been outlined in this chapter, global environmental change discourses have presented a great number of contesting propositions to explain the concept of environmental change. Prying open the question of how environmental change is construed; due to the universal consequences, catastrophic risks and high costs associated with changes in the world's climate, climate change seems to have gained transcendence over other environmental changes. Yet while climate change is a pertinent issue which currently dominates contemporary global environmental debates

and is concurrently shaping development policy (Murombedzi, 2013), it does not take place in a social, economic or political vacuum but is expressed through the matrix of complexities in Africa.

As a result, what is apparent but perhaps not globally acceptable is that most African countries seem to place more focus on development issues that appear more urgent and perceptible, affecting human welfare more immediately. These development issues include what Munasinghe (2003) calls 'pressing local environmental issues'. Lisk (2009) notes these pressing environmental issues in a response to a 2007 IPCC Report that criticized Africa's delayed response to climate change, stating that the IPCC,

> *seems to have missed or overlooked…that Africa's concern about climate change is not mainly in terms of projections of carbon emission and future environmental damages. It is more about the links between climate change and droughts, desertification, floods, coastal storms, soil erosion –contemporary disaster events that threaten lives and livelihoods, and hinder the continent's economic growth and social progress* (p. 8)

He further notes that:

> *For Africa, the immediate need is not essentially that of reducing greenhouse gas emission, which is relatively low in the global context…The need for Africa is to ensure that the current development impacts of [climate change] on its economies and populations are recognised* (p. 11)

Using Zimbabwe as an example, the country ratified the UNFCCC in 1992, but presently lacks a formally stated policy on climate change or any such issues ancillary to the UNFCCC (Frost, 2001). As such, Zimbabwe's policy response towards climate change remains implied rather than stated (Chagutah, 2010). Shortly before 2000, a Government Roundtable Report on climate change had in fact pronounced the following:

> *Climate change is currently not an issue in the Parliament of Zimbabwe, and thus it is not factored into development plans of the country…Climate change has not*

attracted enough attention from a wide cross-section of our society, including political leaders (GOZ, 1999, pp. 5,6)

Also commenting on Zimbabwe's position on climate change Frost (2001) noted,

climate change is not a priority issue for the Zimbabwe Government, though its potential importance globally is recognised. There are almost no domestic or external pressures at present to formulate a policy, given the low level of greenhouse gas emissions in Zimbabwe and the possibility that the country is a net sink for carbon dioxide (p. 47)

Despite Zimbabwe's nonchalance towards climate change it produced its first draft of the Climate Response Strategy in 2013 (see GOZ, 2013). In the draft, the government of Zimbabwe (GOZ) regards climate change as a major threat to the livelihoods of its citizens. It also recognises the role that climate change plays in undermining the country's developmental goals. Due to a lack of human, institutional and financial resources, the government maintains that it remains constrained by the inability to respond effectively to climate change. Acting within its ability towards the cause, the government restructured the Ministry of Environment in 2013, to include 'Water and Climate' constituents. However at the point of writing, Zimbabwe still lacked a climate policy, and climate issues are addressed mainly through the Environmental Management Act (Brown et al., 2013a). Against this backdrop, a variant of 'emergency economic recovery' policies have been instituted in Zimbabwe, before, during and after the peak of the crisis[30], suggesting the priority of the government is economic recovery.

Conclusion

This chapter has highlighted the heterogeneous causation of environmental change, due to both biophysical and social factors. Therefore, limiting discussions of environmental change in Africa primarily to climate change or simply biophysical changes, would be

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[30] Some of Zimbabwe's economic policies post the 2000 era include: the Millennium Economic Recovery Program (MERP) 2000-2001, , National Economic Revival Program (NERP) 2003, Macro-Economic Policy Framework (MEPF) 2005, National Economic Development Priority Program (NEDPP) 2006, Zimbabwe Economic Development Strategy (ZEDS) 2007-11, Short Term Emergency Recovery Program (STERP 1) 2008-09, (STERP 2) 2009-10, Zimbabwe Economic Development Strategy (ZEDS) 2007-11, Medium Term Plan (MTP) 2011-15 and the Zimbabwe Agenda for Sustainable Socio-Economic Transformation (ZimAsset) 2013.

understating the African processes of change. Such simplistic notions of environmental change targeted at Africa are reminiscent of Antonio's observation that:

> *No continent has been so mistreated, martyred and misunderstood as Africa has been over the centuries* (Antonio, 2001, p. 63)

In addressing the question 'where do we go from here'; Lemon and Oxley (1999) conclude that environmental concerns are grounded in issues and not disciplines. I expand on this thought by engaging a human component, which is that issues are founded upon the affected. Befittingly, Lemon and Oxley go on to advocate for holistic, pragmatic and people-centred approaches to understanding environmental changes, versus the adoption of scientific based approaches that are non-people centred. When considered in totality, a comprehensive approach is one which cuts through disciplines, disambiguates the concept of environmental change and abolishes fictional representations of stressors and vulnerabilities. This is important as environmental changes are human security issues - matters of life and death for many, especially the poor and most vulnerable (Matthew et al., 2010).

Bringing together the thoughts explored in this chapter I refer to O'Brien (2012) who interestingly reveals contradictions arising from focusing on 'constricted approaches', for instance in climate change adaptation and she states that,

> *empirical research shows that most people are adapting to multiple processes without differentiating responses to one stressor from the other...whether adaptation is interpreted narrowly to refer to climate change or broadly to refer to multiple changes, a key question addressed in research is 'what is being adapted to?* (p. 669)

In addition, she draws parallels to Paulo Freire's (1970) work on *The Pedagogy of the Oppressed*, and raises critical questions as to who should decide on the magnitude, extent and types of environmental changes experienced by people. Because she says, people are conscious beings, able to not only cause negative transformation but to perceive its effects and take actions to respond to them through positive transformation. Ultimately, she suggests that the notion of positive transformation

could also extend to global change researchers. This is through a fostered open-mindedness that breaks interdisciplinary barriers, allowing for multiple perspectives and viewpoints including those that challenge normative expectations and research interests (ibid). As Rahman (2003) insightfully noted:

> *Can the environment itself be understood in a neutral manner? Should we think of deforestation, the effects of climate change, soil erosion, flooding or other forms of environmental change as separate from social, political, and economic forces?…Environment-society dichotomy should not be created and environmental changes should be examined in the way that they relate to human [experiences], and not only as descriptions of physical changes* (p. 2)

The next chapter will discuss the questions on vulnerability to environmental change, in trying to ascertain the answers as to, who the vulnerable people are and which the vulnerable places are.

Chapter 3: Vulnerability to Environmental Change

Introduction

It has been said that we are living in the Anthropocene (Dalby, 2007; Gammon, 2013; ISSC/UNESCO, 2013; O'Brien, 2010). It is an era in which humans are rapidly transforming the face of the earth (Rockstrom et al., 2009). As Gammon (2013) notes, this era is evocative of two crucial realities - the technological prowess of humanity, and paradoxically, the finitude of humanity. His views mirror Aristolean interpretations of human excellence set against fragility (Nussbaum, 2001). The latter can also be considered to be what Butler (2004a) calls the precariousness of human existence (also see Butler, 2009, 2010). Even so, the geological persona of the Anthropocene appears to be more aligned to biophysical than to social vulnerabilities. But humans are not immune to the impacts of the changes that they effect (Fraser et al., 2003). Anthropogenic activities have serious ramifications for both biophysical and social systems (Brklacich et al., 2010).

When the Anthropocene is considered specifically as relating to social systems we begin to envision environmental change as a form of pathology, for example in the risk of adverse outcomes for individuals and groups (Clark et al., 2000), accentuated by the characteristics of those individuals or groups. These include the situations that shape their capacity to anticipate, cope with, resist and recover from the impacts of environmental change (Wisner et al., 2004). The construed pathology signifies a condition of susceptibility that is commonly known as vulnerability in the environmental literature (Adger, 2006). Sure enough, vulnerability can sketchily be understood as a pathological situation, for the implications of suffering are what inspire the analogy of pathology (Nietzsche, 2011)[31].

This chapter will unpack the definition of vulnerability, looking at who the vulnerable people are, and where the vulnerable places might be. Relating also to the definition,

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[31] In Nietzche's Ecce Homo, vulnerability is described as being a reflection of situations where the sufferer finds themselves overwhelmed by a suffering; the memory of which becomes a festering wound. Studying vulnerability, including its victims, by means of medical imagery is not unusual, and is part of the Western conception of vulnerability (see Bankoff, 2001; Wisner, 1993) .

the chapter will draw out the distinction between biophysical and social vulnerability and explain the links between risk and vulnerability. The chapter will additionally zero in on the complexity of social vulnerability. That is, as a category of analysis that is multifaceted, given that the term is overwhelmed by politics of victimisation and politics of identity. Again, at this point no firm gender allusions are being made.

What is Vulnerability?

Vulnerability is a function of exposure, sensitivity and the capacity to cope with contingencies (Jäger et al., 2007; Kasperson & Kasperson, 2005). Vulnerability has emerged the principal concept for understanding what it is about the condition of a people that qualifies them to be susceptible to a hazard (Tapsell et al., 2010). Therefore it is a valuable entry point for measuring people's adaptive capabilities to threats (Adger et al., 2004). True to form, the concept has been defined variously (Luers, 2005) and applied diversely (Fussel, 2007). In this thesis, I will mostly use the term in relation to the degree to which a system can be harmed (Adger, 2006), as measured against its inability to adequately insure against losses (Bogard, 1989). These descriptions suggest that vulnerability has a forward-looking principle (Thywissen, 2006) as it has a predictive quality that exposes what may potentially happen to a population under particular conditions of risk (Cannon et al., 2003). As such, as noted in Chapter 1, vulnerability has been called a potential for loss (Mitchell, 1989); capacity for loss (Martens & McMichael, 2002) and capacity to be wounded (Turner et al., 2003).

According to Kasperson and Kasperson (2005), the concomitant undertones of suffering are also found in the etymology of the term. For when transliterated, the Latin-derived word *vulnerare* means to be wounded (p. 249). However, in the most general sense, the term *vulnerare* unassumingly denotes a precariousness of humanity (Butler, 2004a, 2009, 2010). This is a susceptibility that stems from our corporal existence that is contingent on the fragility and mutability of life. It draws on our being socially situated in a fashion where we are attached to and exposed to other beings (Butler, 2004a). Butler proposes that this insistance on corporeal vulnerability is the new basis for all humanism.

Although important, existential or universal vulnerability is not the vulnerability that is under consideration in this thesis. The focus here is on that vulnerability that is contingent on the risk presented by socio-ecological factors surrounding one's existence. Unlike existential vulnerability, risk contingent vulnerability may not be an everyday experience per se. Since it is underpinned by situation and identity, it may not even be universal. This is where a prognosis of harm is linked to past experiences of sensitivity based on identity group membership (Schlund-Vials & Gill, 2014). Sensitivity here is based on 'particular' conditions affecting a 'particular' group of people. For example, the poor and women have frequently been labelled as vulnerable identity groups, and therefore sensitive to environmental change (Dankelman, 2003; Demetriades & Esplen, 2010; Mearns & Norton, 2010). As such, Wisner et al. (2004) argue that vulnerability,

> *involves a combination of factors that determine the degree to which someone's life, livelihood, property and other assets are put at risk by a discrete and identifiable event (or series or cascade of such events) in nature and in society.* (p. 11)

One way or the other humans are prone to susceptibility, but risk contingent vulnerability has its roots in the social order and is reproduced through social action (Hewitt, 1997). Based on social characteristics and underlying social conditions, actual vulnerability may in many instances be pre-existing as opposed to forthcoming. Needless to say, vulnerability just does not fall from the sky (Ribot, 2009). Supporting this claim, Leduc (2010) proposes that vulnerability (say to climate change), is underlined by sociocultural dynamics such as exclusion and discrimination. Therefore, aside from physical loss, she says, climate change acts to exacerbate existing inequalities. Here, those observed to be the weaker actors before the onset of an encounter are more likely to face threats to their coping abilities, and thus suffer a coping crisis. This also suggests that in the case of pre-existing vulnerabilities, externalities such as those brought on by climate change complicate people's already complicated situations by putting their livelihoods and well-being further at risk.

In a study on the political economy of hunger in West Africa, Watts (1983a) explored the underlying causal structure of vulnerability, and remarked,

it is clear that the peasant economy if intact is far from healthy. This 'morbidity' is lent a measure of urgency by the current structural crisis in many of West African food economies (p. 348)

Watts attributed the state of play to unstable macro structures of resource production and distribution. In his view, these weaken the ways in which peasants respond to hazards and crises. He says an eventuality such as a drought would only serve as reinforcement to the already existing vulnerabilities[32]. As an example, due to the already volatile political economy, the little food that is in circulation may most likely fail to reach the weakest, thus creating a famine situation. A FEWS (1999) report expressed the same idea related to interpretations of famine in Africa. The report concluded that a crisis such as famine is often far more complex than a shortage of food. It cited entitlement failure and revealed that in certain cases, a famine is not a famine in the strictest sense, but a famine of entitlements or mechanisms for accessing food (also see deWaal, 2004). This is particularly reflective of those weaker individuals or groups of people who have fewer entitlement claims (Swift, 2006).

In a separate study titled *Peru's Five-Hundred-Year Earthquake*, Oliver-Smith (1994), reasoned that what materialised as an earthquake on May 31, 1970 had been preceded by years of man-made disaster. This logic follows that the social impacts that surfaced after the earthquake, had been initiated at the inception of the Spaniard conquest. Colonisation had led to the marginalisation and disempowerment of the colonised and had compromised the native mechanisms for responding to shocks. This is why on the 'fateful day', a 7.7 magnitude earthquake met with an already vulnerable population. In sum, the vulnerability that the region exhibited (and still exhibits) is a socially created phenomena and a historical product brought into being by identifiable sources (p. 87). From an overarching angle, we can almost see semblances to Cutter (1996) and her

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[32] The remarkable feature of Watts' observation is that, much against all odds, famines were in some cases seen to be evaded in African rural set ups. This is because of relations of reciprocity at communal and kinship level. Eldridge (2002) engages similar reasoning to explain why there was no famine following Zimbabwe's major drought of 1992. But the changing landscape of family – seen in increasing competition for resources and leanings towards individualism may altogether change how rural people may respond to present and future environmental changes. On the other hand, the State is said to take advantage of the collectivised set up of African families, relinquishing some of its roles on the basis that the traditional extended family will take care of its own (Rwezaura et al., 1995).

logical deduction that vulnerability is influenced by both socio-ecological risk and social response.

The above discussion demonstrates that vulnerability can exist as an underlying state. This state may be concealed, but unveiled as a result of causal agents or stressors (Brklacich et al., 2010; Vogel & O'Brien, 2004). As can be seen, the agents or stressors may be dynamic processes likely to be in motion prior to any noticeable effects of environmental change (Matthew et al., 2010). As can also be seen, the agents and stressors may include dynamic historical processes, differential entitlements and power relations (Miller et al., 2010).

In the final analysis, when the pathological outcome is unveiled, in this case by processes of environmental change, the broad-spectrum response strategies often engaged by people become obvious. As noted in Chapter 2, the most fundamental of these are mitigation, adaptation or suffering (see Nelson et al., 2007). Mitigating involves reducing the impacts of negative changes or the probability of occurrence[33], while adapting entails structural transformations that enable people to live positively alongside change. Suffering however suggests inaction or the failure or inability to change one's situation due to being unable to anticipate, cope with or recover from the impacts of change (Vogel, 1998) [34]. Mainstream focus is primarily targeted at realising the first two responses (mitigation and adaptation) with the intention of eliminating the third (suffering), as the third response only perpetuates vulnerabilities. Primary efforts are usually aimed at assisting people to mitigate, although in cases where situations may not be decipherable, or immediately salvageable, the best call would be to adapt. The cumulative effects of suffering due to vulnerability and maladaptation find expression in humanitarian crises that commonly require rectification through developmental interventions. This is why the concept of vulnerability is increasingly becoming central to

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[33] Mitigating incorporates the values of sustainable development's Precautionary Principle. This is where action should not be taken if the effects are potentially dangerous or harmful. The Precautionary Principle has mostly been used in relation to ecological processes. However I believe that it should also extend to, and be applied to social systems and phenomena causing negative change.

[34] To choose to suffer, is in Nietzsche's view of pathological vulnerability evocative of a form of Russian fatalism. That is, a fatalism without revolt, exemplified by a Russian soldier who finding a campaign too strenuous finally lies down in the snow, "no longer to accept anything at all... to cease reacting altogether (Nietzsche, 2011).

the discourse of development. Altogether, "*development deals in pathologies*" in the sense that "*if you have no problem why do you deserve assistance*?" White (2000, p. 34). These issues will be fleshed out as the thesis unfolds. At this point, I move on to making distinctions between biophysical and social vulnerability.

Social and Biophysical Vulnerability

Two mutually inclusive standpoints crucial not only in delineating vulnerability, but also in mapping out the causation of vulnerability are biophysical and social vulnerability. The two give a multifaceted depiction of the nature of problems, ecological or social, which expose natural and human systems to susceptibility to harm (Miller et al., 2010). More than anything else, the two correlate to produce the aggregate vulnerability of a place (Cutter et al., 2000). To understand the two, I revert to the depiction of vulnerability as being potential for loss. The loss is said will have a spatial or non-spatial domain (Cutter, 1996). In this case, the spatial domain signifies the physical conditions, and, therefore, the vulnerability of the physical system, while the non-spatial domain signifies the social conditions, and, therefore, the vulnerability within the social system.

Put more directly, biophysical vulnerability describes the extent to which a natural system is vulnerable to effects of stress and its ability to cope with the stress (Birkmann, 2006). Social vulnerability describes the susceptibility of humans to stress as measured against the social conditions that are necessary for human survival and adaptation (ibid). The social conditions take into account experience with hazards and the ability to respond to, cope with and recover from hazards (Cutter et al., 2003). Therefore, as Cutter et al. (2000) suggest, socio-demographic characteristics, including the perception of, and experience with, environmental risks or hazards are indispensable elements that reveal how people respond to or cope with risk. Overall, the biophysical attributes of geographic space tell us where the vulnerable people and places are, while the social characteristics of a domain, tell us who in the social space is vulnerable (Liverman, 1990). Both are studied within a specific geographic context. The contrasting images demonstrate that vulnerability is relative (Martens & McMichael, 2002). They prove that vulnerability relies on a particular reference unit or specific scale of analysis (Clark et al., 2000; Vogel & O'Brien, 2004), where due to varying causal structures (Ribot, 2009), the units of analysis may be characterised by different cascades of susceptibility.

Despite these varying scales of susceptibility, there are some studies that disregard notions such as vulnerable landscapes and vulnerable economies in a way which appears to render terms such as social and biophysical vulnerability unnecessary (Wisner et al., 2004). Such predispositions seem flawed because, as I argue, in order to understand vulnerability, its layers need to be stripped bare. This is particularly true when considered against the realisation that vulnerability is multidimensional (Jäger et al., 2007). And that it is:

> *the outcome of multiple stressors and multiple actors in multiple contexts…at various spatial and time scales…[Therefore] vulnerability to environmental change [is] inherently different for each community or individual* (Kok et al., 2015, p. 2)

I will look next at risk and vulnerability before going on to explore the complexity of social vulnerability.

Risk and Vulnerability

In Chapter 2, the concept of environmental change was defined comprehensively. It showed that numerous processes of environmental change present risk to humanity and ecosystem services and that, based on scientific estimations of the magnitude of their consequences, natural processes of environmental change tend to gain pre-eminence over social processes. Where vulnerability is concerned however, risk is not always presented through natural events, hence there is a crucial need to look at risk factors comprehensively (Wisner et al., 2004).

Essentially risk is the probability of an outcome combined with the magnitude of the losses and gains that it will entail (Douglas, 1992, p. 40). The relationship between vulnerability and risk then is that vulnerability is the propensity to be harmed by undesirable outcomes. The idea of risk is definitively modern (Crook, 1999). From a sociocultural perspective, risks are cultural (see Chapter 1), as they are considered as value-laden judgements of human beings concerning occurrences of natural events or possibilities of occurrence (Fox, 1999). In this case the difference between traditional and modern societies becomes that the former unreflexively accept(ed) risk as fate or

otherwise acts of god (Hewitt, 1983), whereas the latter reflexively process risk. Rather, the modern views of hazards as risks are divorced from the traditional conceptions of hazards as fate and destiny. For as Giddens (1991) also points out, "*to live in the universe of high modernity is to live in an environment of risk*", fate and destiny have no formal part to play in such a system where humans control both natural and social words (p. 109). In his book *Against the Gods: The Remarkable Story of Risk*, Bernstein (1998) rationalises further that the revolutionary idea that defines the boundary between modern times and the past is the mastery of risk by humans. The human avoidance of risk in contemporary times is thus motivated by, "*the ideal of the 'civilised' body, an increasing desire to take control of one's life, to rationalise and regulate self and the body, to avoid the vicissitudes of fate*" (Lupton, 2013, p. 203).

With risk and vulnerability in mind in this section, I briefly highlight two main points. Firstly, I wish to reinforce the view by Wisner et al. (2004) that, disasters are a complex mix of natural and social processes of change. Thus, "*these two aspects – the natural and the social – cannot be separated from each other…" (p. 5),* for both are equally important in offsetting new and or heightening existing vulnerabilities.

The second point that I wish to reinforce is that of the importance of risk perception. Sanitised or not, the layman's perception of risk is not to be taken lightly[35]. The notion of sanitised perceptions of risk was first submitted by Douglas (1992), who on analysing traditional versus modern modes of reasoning, concluded that traditional ways of looking at misfortune are less sanitised[36]. Douglas does however emphasise that perceived risk is horribly real to the perceiver, such that it would be cruel to take the perception as being purely fictional[37]. The findings and discussion chapters will bear this study's participant perceptions of risk which curiously border between the traditional

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[35] In general, risk research has revealed that the laymen definitely do not see risks in the same way as the experts. The gap between lay and expert opinion is what has given rise to the sub-discipline of the psychology of risk (see Douglas, 1992).

[36] Traditional societies follow a line of reasoning that ties misfortune to fate and spectral beings, where the sanitised approach would be to look at misfortune through linking effects to calculable causes as the moderns do.

[37] In Chapter 2, it was established that perceptions about risk and responses to threats are key constituents that can be used as the 'sextant and compass' by which the landscape of vulnerability can be studied (Hillhorst & Bankoff, 2004, p. 4).

and modern. At this point, I move on to detailing the complex nature of social vulnerability.

The Complexity of Social Vulnerability

A principal argument coming from the GEC literature is that environmental changes cannot be isolated from ethical aspects, for example, those that fashion the distribution of gains and costs of risk (Kasperson & Berberian, 2011). Here the central focus is often on the wider political economy of resource distribution and use (Adger, 2006). This is not to reduce all forms of vulnerability to resource inequality. Instead, it is to confirm that the architecture of entitlements, as Adger and Kelly (1999) state, are the foundation of inequality and the basis of any examination on social vulnerability. Cutter et al. (2003, p. 245) concur with this idea, basing their argument on the understanding that the social factors that influence or shape susceptibility to harm also govern people's ability to respond. Nonetheless, social vulnerabilities are correspondingly furthered by inequalities of space, as characterised by features of both the physical and built environments.

Often as a result of budding inequalities, the environmental change literature has become overwhelmingly filled with the language of disparity. This is where diametrically opposed words such as winners or losers; included or excluded; privileged or marginalised, now seem to be a regular feature (Leichenko & O'Brien, 2008). This growing body of literature also shows that the temperament and momentum of the environmental changes has changed. Therefore at this point in time, people are constantly being exposed to new and in some cases unfamiliar conditions (Leichenko & O'Brien, 2002), and these are producing multi-levelled vulnerabilities (Martens & McMichael, 2002) and at unprecedented levels (Eakin, 2005). As such, I am interested in analysing the differential vulnerabilities between rural men and women due to environmental change to gain a more nuanced understanding which reflects the complexity of vulnerability.

One way of bringing complexity into our understanding of social vulnerability is through the use of the concepts of end-point and start-point vulnerability. The former are vulnerabilities that are thought to be associated with environmental changes of

biophysical form. O'Brien et al. (2004) insinuate that such changes are clear cut, and adaptation measures are determined by the changes themselves. As an illustration, they cite climate change, and its allied diagnosis linked with among other things, the reduction of greenhouse gases (GHGs). On the other hand, start point vulnerabilities are a result of multiple stressors, which are usually brought on by social changes. These are not always so clear cut; hence adaptation measures are defined by the nature of vulnerability (also see Thornton et al., 2006).

Examined more closely, matters relating to environmental change and social vulnerability are underlined by complexity. As seen in this chapter already, some processes of environmental change are in certain cases unforeseeable, affecting unsuspecting people (Wisner et al., 2004). Even in forseeable cases, some people may still lack the capacity to anticipate, cope with and recover from the impacts of change (Vogel, 1998), so much so that, some people are more vulnerable than others (Tapsell et al., 2010; Veland et al., 2013), while others profit from the vulnerability of others (Masika, 2002). Vulnerability analyses ought to be able to reflect these complex realities (Kok et al., 2015), but in the process, researchers often stumble upon further complexity (Bhatt, 1997). This validates the involvedness of vulnerability, not only on the part of the affected, but also on the part of those who approach vulnerability with scholarly motivation.

While some researchers continue to insist on rational approaches to ascertaining vulnerability, given the nature of some complexity, there are situations that may defy rationalisation (Beattie & Schick, 2013). Nonetheless, some researchers are those that treat vulnerability as a social construct (Adger & Kelly, 1999). Technically it is, but clinically such an outlook may engender a perfunctory approach to vulnerability, for example the non-urgent approach taken by those who see the doom and gloom filled environmental literature as merely sensationalist antics employed to create alarm and cultivate a culture of fear (Furedi, 2007). In the same vein, other researchers see vulnerability as being a political tool (Bankoff, 2004). When considered in this light, often, the labelling of people as vulnerable is seen not only as a process of victimisation,

but as a strategy to assemble vulnerable subjects for political gain (Ruma, 2011)[38]. So for the most part, the concept of vulnerability is complex, and has also become politicised.

Next, I discuss more on politicisation before moving on to examining vulnerable people and vulnerable places. Given the breadth and width of the subject, I limit the discussion to a few elements of the politicised nature of vulnerability. This is because the politicisation of vulnerability is an area that is beyond the scope of my study.

Politicisation of Vulnerability

Vulnerability is seen by some as a universal approach, where people are believed to be uniformly affected by environmental changes. As stated under the section 'What is vulnerability,' universal or existential vulnerability is based on our corporeal existence as humans. Hence universality is the alternative to conventional approaches that place people into identity groups; for instance based on the trajectories and cascades of their vulnerability. Until this point I have distanced myself from universalistic ideological leanings and all forms of global connotations for that matter. This is not to say that I do not entirely subscribe to the notions of an existential vulnerability shared by humanity. However this point is important as it delineates the bounds of my study, which focuses on specific conditions of risk affecting rural men and women. Hence at this point, I recall universalism only as a point of departure for the discussion that is to follow.

With this goal in mind; I note that the proponents of universal vulnerability profess a common vulnerability that is according to their manifesto, shared and therefore, non-discriminatory (see Fineman, 2008). In tandem with proponents of universal vulnerability, the advocates of post-identity argue that identities are a painful reminder of suffering. In this vein Brown (1993) calls association with victimhood, 'wounded attachments'. The scholars argue that the subtexts underlying the situation of victimhood carry a measure of emotive potency and invoke a sense of commiseration, more so when mirrored through Nietzsche's eyes, where for the sufferer, the memory of suffering can become a festering wound. When considered in light of environmental change, it would appear that those vulnerable to change face double exposure of

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[38] Ruma (2011) refers mainly to the identity group of gender, which he says is a category that in other settings has been used as a means to access resources in the name of vulnerable women.

'woundedness'; first as a result of their susceptibility to exposure, and secondly as a result of the memory of their incapability to cope with exposure. The memory is preserved further by their association with an identity group of vulnerable people. These imageries showcase the dilemmas faced when created identities are also the basis of oppression. In dismissing identity classifications based on victimhood Hobsbawm (1996) therefore states that "*identity groups are about themselves, for themselves and nobody else*" (p. 44). Although the highlighted concerns are valid, I would argue that the following question I have posed is also important:

> *How then can the vulnerable subject find a way out of an undesirable identity group, if not by being subjected to the sequential process of targeting, categorisation and then assistance by interventionist organisations?*

Yet in so far as identity placement is in certain cases important; divisions of society into different groups for scrutiny may still cause discomfort to the affected. It resultantly remains an ethical matter. I also take as an example the isolation of people based on who has what, who does what, who decides what, who wins and who loses. At this point, the researcher assumes the judicial role of pointing out 'perpetrator and victim', 'winner and loser'. Based on the criterion used to measure vulnerability, the researcher's recommendations may also cause certain vulnerable individuals or groups to be overlooked. Meyer and Poniatowska (1988) call the omitted, the voices of anonymous suffering. For me, the omission of vulnerable people from help channels is an ethical catastrophe. I will expand on these concerns later. For now, it is plain to see how the provocation of such delicate matters is enough reason for the labelling of persons as vulnerable to be seen as indeed and, in fact, political (Bankoff, 2004).

The concept of vulnerability is also regarded as political because it is thought to be a schematised representation of loss birthed by Western thought (Bankoff, 2004; Beattie & Schick, 2013; Butler, 2004a). Based on Bankoff (2001), the Western conceptualisation of vulnerability equates it to an epidemiological situation (a form of pathology). Vulnerable people are then depreciated to 'poverty-stricken', 'disaster-prone', 'disease-ridden' victims needing to be remedied from these ills. Bankoff (2004) states that the concept 'vulnerable', is then applied arbitrarily even in localities where people have

their own native understandings of risk and susceptibility. Hence, although the local population may be able to perceive risk, they may not necessarily be acquainted with the Western conception of vulnerability. Neither would they have a translation of the term in their local dialect. The studied may not even be aware that they are vulnerable until otherwise informed. In the end, when the vulnerable label is applied, subjects are created that then commonly become targets of top-down aid approaches.

Agreeing with Bankoff, Furedi (2007) argues that the label vulnerable seems to suggest a sense of helplessness that is carelessly attached to a targeted population. He also stresses the existence of people who are persistently labelled as vulnerable, saying that these people are constantly depicted in a way that dispels all hope of escapism from their identities. Fordham (1999) concurs, noting that the term 'vulnerable' does carry with it some notions of victimisation. It is a circumstance that she calls "*an imposed static condition of victim seen to be both partial and disempowering*" (p. 20).

Conversely, newer ideas have emerged from a social science perspective that is more aligned to social work. These opinions are far removed from the traditional views where according to Gilson (2013) vulnerability is understood in a reductively negative way, and as being tantamount to harm (p. 58). From this body of knowledge, vulnerability is not seen as a disempowering process. According to Brown (2010), the courage to admit to one's vulnerability is, in fact, reflective of the inner recognition of imperfection. This is similar to what Gammon (2013) insinuates when he states that,

> *those who refuse to acknowledge their own vulnerability express - at some level – contempt for their social being, of the inextricable linkage of their own fragile identities with others* (p. 150)

All in all, Brown (2010) argues that admitting to vulnerability is admitting to struggling, versus the acceptance of an uncomfortable situation. In other words, admitting to vulnerability is seen as being reflective of the power to expect and embrace change. Ultimately, she says that vulnerability is the birthplace of innovation, creativity and change. For without realising weakness and the need for betterment, humans cannot create avant-garde systems and structures of transformation.

There is truth in most of the presented arguments. Vulnerability is more often than not a socially-constructed phenomenon (Adger & Kelly, 1999). It is also a political construct (Bankoff, 2004) that may suggest helplessness (Fordham, 1999; Furedi, 2007). But it is also true that environmental changes are not a concept without form (Jager, 2003; Leichenko & O'Brien, 2008; Matthew et al., 2010), and that, identity group or not, people are suffering in numbers because of the impacts of environmental change (Hackmann & Moser, 2013; Kasperson & Berberian, 2011; Matthew et al., 2010). Hence when approached from a pathological point of view, it is indisputable that no time is to be wasted arguing over the politics of orthodoxies. For in dire situations, the ordinary person is disinterested in legalities. In such circumstances, the ordinary person needs reprieve from suffering. As such, Manjengwa et al. (2012b) note in relation to their experience with poverty cases in Zimbabwe that,

> understanding the nature of poverty is academic, and does not concern the poor who are actually experiencing it…poor, marginalised and vulnerable people are more concerned about what can be done about their situations (p. 50).

Underlying identity classifications based on normative judgement are challenges that are discussed in the following section

Vulnerability, Normativity and Dehumanisation

At this point I have made inferences to two forms of vulnerability. These are existential vulnerability and risk contingent vulnerability. Both are testimonials to the arresting power of vulnerability, which imposes itself as a precondition for humanisation[39]. The first inference denotes a conjoint vulnerability that is non discriminatory. And the second denotes a particular people, subjected to particular conditions of risk, within set parameters, such as spatial and temporal scales. The second is more specified, and signals a non uniformity to vulnerability. However, to acknowledge that humans are vulnerable, is to acknowledge that the humanisation process is underlined by precariousness (Butler, 2004a). Still, we are brought back to the non-uniformity of vulnerability because humanisation takes place differently. Meaning, by virtue of

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[39] As prior stated, universal or existential vulnerability is a precondition of humanity, hence the act of being vulnerable affirms that a humanisation is at play. However, to refuse someone the right to be vulnerable is to refuse them their humanness.

existence, every human being will be exposed to different processes that will impinge on his/her abilities to withstand pressures. At the same time, in most cases vulnerability needs to be spoken for it to be recognised. Hence Butler goes on to state,

> When a vulnerability is recognised, that recognition has the power to change the meaning and structure of the vulnerability itself…[and]…our utterance enacts the very recognition of vulnerability (p. 43)

Even with the knowledge of the inevitability of human fragility, there are also cases where some vulnerabilities are just not recognised (ibid). In fact, these may altogether be constitued as unrecognisable, in that way qualifying them as vulnerabilities forgotten (Beattie & Schick, 2013). Ultimately, this results in the Othering of the absent vulnerable (ibid), what Butler refers to as dehumanisation:

> *The deaths of the dehumanised are not only poorly marked…they are unmarkable. Their deaths vanish not into explicit discourse but in the ellipses by which public discourse proceeds* (Butler, 2004a, p. 35)

Among the few illustrations on dehumanisation Butler cites are the extensive deaths taking place in Africa, which as she says are for the most part 'unmarkable' and 'ungrievable'. Caution should be taken here, for there are those who voluntarily distance themselves from the probability of fragility. I will return to this thought shortly. Firstly however, it is important to note that Beattie and Schick (2013) attribute the blame for unrecognised vulnerabilities on modern thought and its underpinnings of rationality. Under this constitutive body of knowledge, rationality follows that only those that are considered the weakest before a negative encounter or event will be vulnerable. I cite here, an encouter with environmental change. Therefore the probability that those who would not typically be seen as 'weak' may too be impacted on negatively by environmental changes is what is often ignored. To defend their claims, Beattie and Schick argue that,

> *rather than trying to deal with a vulnerability that is essential and unavoidable, modern thought attempts to suppress and destroy vulnerability and with it the vulnerable* (p. 5)

Clearly modern thought has forged normative hypotheses for vulnerability, proving that, vulnerability has also become a framework for advancing normative aspirations (Butler, 2010). In this case, normative assumptions of vulnerability are limited only to a certain group of people. To support this claim Gilson (2013) notes that normativity is too often used to preserve a status quo, rendering thought unnecessary, neither leaving an opening for accommodating complexes nor the motivation to understand events as they unfold. As a result of normativity, meaningful responses to environmental change are precluded – a sign that the dehumanisation process will already be in progress. For as Gammon (2013) argues,

> *The marginalised attain but modicum humanness when monetary values can be assigned to their injuries. In the case of environmental change, it is in the large part, the absence of recognition and humanisation that forestalls meaningful agency in abating detrimental [social] practices* (p. 150)

What is nonetheless surprising is how people who do not wish to consider themselves as vulnerable often feel they have the nominating rights to volunteer others both on to, as well as off the lists of the vulnerable. But by projecting vulnerability onto people other than themselves, could it be that they fail to embrace the possibility that they too could be vulnerable? Could it be that they see vulnerability as a sign of weakness? And so they distance themselves from the pathological condition[40]. Shildrick (2000) addresses this in terms of anti-contagionism, asking:

> *Is it possible, then, to theorise…autobiographical moments in the interlocking context of vulnerability and contagion without betraying the shock of recognition? Among the several meanings of the word "contagion," all of which are deeply negative in their import, is the notion of a disease process spread by touch, or even by proximity. We understand that a contaminated object is one to be avoided or kept at a safe distance, lest we too become affected. Our well-being, our very lives, are dependent then on the maintenance of a self-protective detachment, an interval not only between ourselves and evidently dangerous*

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[40] I take into consideration what Butler (2004b) implies in *Undoing Gender*, that vulnerability is a form of weakness that some may not wish to associate with.

others, be they microbes, parasites, or infected human bodies, but also between ourselves and the mere potential of risk (p. 216)

In much the same spirit of rhetoric, I finally ask, who is to account for the deaths of the many whose vulnerabilities have been and are still not being accounted for? The next sections will explore in more detail which people are vulnerable and where the vulnerable places are. This is because, as previously noted, the hazard potential is moderated by the social fabric and geographic filters, as these point to the situation of place and site of action (Cutter et al., 2003).

Vulnerable People

Vulnerability is an intrinsic feature of persons at risk (Birkmann, 2006). Discussions of vulnerability draw attention to those who are least able to cope with the impacts of environmental change (Lisa et al., 2009). According to Jäger et al. (2007) analyses of vulnerability expose the unequal distribution of risk for specific groups of people. As recounted numerously already, poor people, many of who are women, are said to be more predisposed to vulnerability than men (Dankelman, 2010; Mearns & Norton, 2010). In fact, due to poverty, women as an identity group have frequently been seen to be vulnerable (Masika, 2002). Therefore, the idea that poor people lack the capacity to respond flexibly to socio-ecological changes (Bryant & Bailey, 1997) can be taken to mean that vulnerability has a lot to do with socioeconomic status (Wisner et al., 2004).

Even so, vulnerability is not a translation of socioeconomic status (Hillhorst & Bankoff, 2004), neither is it synonymous with poverty (Swift, 2006). As such, not all poor people are vulnerable, while in some cases the rich may be vulnerable (Hillhorst & Bankoff, 2004). Relating to poverty based vulnerability, Swift rationalises that the poor have fewer assets than the rich, which is why they often reach the threshold of vulnerability faster than those less poor. Likewise, he says that the socially marginalised have fewer claims to entitlements, which is why they often reach the threshold of vulnerability faster than those with more claims. Social relations also make vulnerability a dehumanising process (Gammon, 2013), because societal relations characterised by relegation and deprivation keep the marginalised from coping well with the impacts of

change. Hence the social space of vulnerability is summed up by Hewitt (1997) as having roots in three intersecting areas:

1. Disempowerment due to deprivation of entitlements

2. Relegation due to disenfranchisement

3. A political economy of appropriation and exploitation, depriving people of the means to cope with hazards

Given the intersectionality highlighted above, long before exposure to a risk factor, the underlying conditions of society may tell that a primary dehumanisation[41] process may have already taken place. In this case the risk factor then becomes the medium communicating the dehumanisation that is already at play (Butler, 2004a). This makes exposure the qualifying agent that reveals a system's sensitivity to hazards, and coping capacity, the evidence that an agent can or cannot cope with exposure. It is this ability that makes others more vulnerable than others (Bryant & Bailey, 1997).

As Ahmed and Fajber (2009) analyse further, vulnerability should not be taken as a random outcome. Instead, it should be taken as being embedded in everyday social living, and as being grounded on probabilities. When looked at from this angle, vulnerability also ceases being seen as static, but rather as being a dynamic condition that requires continuous reviewing, since, with evolving situations, and the changing environment, circumstances may change. Incidentally, it is when a person is subjected to stresses that exceed his/her ability to cope, that their vulnerability will surface (Adger & Brooks, 2003). This also implies that, at a given snapshot in time, those found at the worse end of the spectrum will be more vulnerable than those found at the better end. Vulnerability thus exists on a continuum, where the pendulum is not static, but rather shiftable, confirming that in the end, no-one is immune to vulnerability. Leichenko and O'Brien (2002) call this the continual evolution of vulnerability. However the semantic of evolution does not undermine chronic vulnerabilities. In cases of chronic vulnerability, a prognosis of harm would exhibit a past and present that is characterised by incapability,

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[41] The word dehumanisation is first seen under '*Vulnerability, Normativity and Dehumanisation*' as used to refer to unrecognised vulnerabilities. Under this current section it used to refer to social processes that contribute to people's vulnerability. Given the usage of the term under the two sections, the second use entails a primary dehumanisation, and the first usage, a secondary dehumanisation. Dehumanisation simply means the denial of humanness to some people.

with no signs of change in the future. Wisner (1993) and Bankoff (2001) call this a permanent state of emergency.

When all is said and done, vulnerability itself is invulnerable (Beattie & Schick, 2013). Curtail it we may, but totally exterminate it we cannot. It remains an inexpugnable aspect of human condition (Gammon, 2013, p. 149). Again, this is not to prescribe to the post-identity and universal approach to vulnerability. But it is to agree to the precariousness of humanity in an environment that transcends universality, predictability and stability.

Differential Vulnerabilities

While singular persons may experience multi-layered vulnerability, vulnerability between two or more people is seldom uniform. It is an individual's sensitivity and coping capacity that point us towards differential vulnerability. With that said, some studies talk of differential exposure to environmental change of biophysical form. I disagree with this view, because exposure to ecological changes, to people living within the same area, is bound to be the same, whereas their sensitivity and coping ability are not. For social processes of change, the concept of differential exposure may however hold true. My hypothetical assumptions in relation to this are furthered in the chapter on gender (see Chapter 4). All the same, in accordance to their different sensitivities and coping abilities, different people will be affected differently by environmental change. In particular, differential vulnerabilities can be seen to thrive from inequalities between men and women, coupled with inequalities between the rich and the poor:

> *Vulnerability varies across categories, including among men and women, poor and rich, and rural and urban, as can be observed in all archetypes* (Jäger et al., 2007, p. 314)

Along these lines, (O'Brien & Leichenko, 2010, p. 158) state that:

> *global environmental change is transformed from a unifying discourse for responding to environmental problems…into an issue of differential vulnerability that draws attention to some key questions such as; whose security is at stake?*

and why? and what are the underlying factors contributing to the differential vulnerability?

Although I tend to disagree with the oversimplification of scale, for instance as implied by the global connotations in environmental change, I agree that it is vital to interrogate the underlying factors that contribute to differential vulnerability. In three parts, I sum up these factors as they are envisioned in my study. Firstly, social difference inspires processes, such as marginalisation and disempowerment, which collude to reduce the capacity of the affected to respond to risk. Secondly, based on underlying conditions of society such as the political and economic conditions, some groups of people may be more prone to damage, loss and suffering than others[42]. Lastly, people living in more precarious environments may be more risk prone. All three conditions are more often than not remote from the actual threatening shocks. This simply shows that vulnerability is not only a consequence of exposure to environmental change, but is also a consequence of sensitivity and the inability to cope. This sensitivity is also related to the place an individual or group live, as will be discussed in the next section on vulnerable places.

Vulnerable Places

Geographic space is another commonly used means for gaging vulnerability (Bohle et al., 1994; Susman et al., 1983). Its function towards this end is twofold. First and foremost, geographic space denotes vulnerable places. These are typically those spaces that are remote. Remoteness pertains to economic and political location, including temporal and ideological distantness (Wisner et al., 2004). Liverman (1990) clarifies this, noting that vulnerable places also exude a biophysical determination of vulnerability, which is defined by marginality of topography, climate, soils and natural vegetation. In total, vulnerable places translate directly into a poverty of opportunities (Bird et al., 2010). What ensue are restricted livelihoods, economic immobilism and subsequently food crisis, health crisis etc.

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[42] On the other hand, as will be seen later on, crisis contexts may make it harder to ascertain gender differentiated risk.

Secondly, vulnerable places evoke vulnerable people. As Liverman (1990) explains, in most cases the most vulnerable people are those living in the most precarious environments. Put differently by Cutter (1996), vulnerable places are an indication of where most social vulnerabilities are likely to be concentrated.

Overall, geographic disadvantage is in some readings titled a geographic poverty (Blaikie et al., 1994; Tickamyer, 2009), and in others, a spatial or peripheral poverty (Bird et al., 2010) and a backyard problem (Kasperson & Kasperson, 2005). For clarity's sake, this type of poverty is not a material deprivation per se. Rather; it is a poverty that results from the fragility of landscape and place. Although not entirely a material deprivation, geographic poverty can engender a material deprivation (Shepherd, 1998). Due to limited livelihoods geographic disadvantage can lead to a chronic state of vulnerability (Wisner et al., 2004). In spite of this, Liverman (1990) argues that the most vulnerable (the poor) may not necessarily be found in vulnerable places, observing that the poor can live in productive environments and remain vulnerable while the rich may live in fragile environments and live relatively well. Indeed, Ravallion and Wodon (1999) note that every country (rich and poor) has places where the incidence of poverty and vulnerability is high. These are interesting expositions that lend themselves to further debate, and which will be explored further later in this thesis.

Conclusion

Bearing in mind that vulnerability refers simply to the capacity to be wounded, the conditions of at riskness highlighted in this chapter have explained what is meant by the term vulnerable, and who may be considered vulnerable. However, we live in a day and age of complex change that continues to engender different types of vulnerabilities - some which may not fit the normative prescriptions of vulnerability. To draw this discussion together I note Leichenko and O'Brien (2002) who argue that:

> *Dynamic vulnerability incorporates traditional notions of vulnerability but places these within a rapidly changing socio-economic and environmental context [socio-ecological] –a context that transforms the static snapshots of vulnerability* (p. 3)

The discussion in this chapter has drawn attention to the need for a critical approach to the normative bias inherent in many discussions of vulnerability, and for a nuanced and empathetic response to the experiences of people in the context of environmental change. The next chapter begins to do this through an exploration of the issues of gender and vulnerability.

Chapter 4: The Gendered Terrains

Introduction

In Chapter 2 I highlighted the ways in which environmental change encompasses transformations to socio-ecological systems, while in Chapter 3 I showcased how people can be vulnerable to the impacts of environmental change. According to the descriptions of the impacts of environmental change on people given in Chapter 1, society is differentiated by markers of social difference, of which gender is one. In this chapter, I will start by focusing on the definition of gender, leading into the theoretical perspectives of gender in development. From there, I will move towards exploring gender topographies that help to structure my argument regarding how the gendered dimensions of environmental change come about. This entails exploring the questions who has what, who does what, who decides what, who is affected by what changes? To give a balanced view of gender, I will end the chapter by locating the missing masculinities.

Conceptualising gender

Insofar as it has been framed by early Western feminists, gender is a function of biological determinism and or essentialism (Jaggar, 1988). This is where gender is viewed as a natural corollary of the sexual differences between men and women (Sen & Grown, 1987) and where gender roles are seen to be based on a highly selective interpretation of these differences (Kabeer, 1995). Following this conception, sex and gender have often been used interchangeably (Lorber, 1996). However, this is problematic as sexual differences are a primary distinction of human diversity, while gender differences are a secondary distinction. In other words, sex is biologically determined, while gender is socially determined. Aside from the problematic synonymity, the collocation of the words sex and gender further provokes questions as to where biology stops and where society starts (White, 2000).

What usually follows the above questions is the supposition that gender is attached to the sexed bodies, meaning that bodies are the substratum upon which the social order is founded (Oyewumi, 1997). Therefore, instead of displacing sex, gender complements it

(White, 2000), because bodies are the crude markers of the gender outcome (Lorber, 1994). Even supposing this, the body cannot always dictate a positive gender identity (Rozmarin, 2013). However since my focus is not merely towards contesting sex and gender, my focus here is on the notion of gender as a social construct. My minimising gender as sex can be understood in light of the fact that gendered vulnerability cannot be reduced to sexual difference, where in the first place, the body is not a resolute factor that can dictate a positive gender identity. I say this notwithstanding the phallocentric view that associates the female body with feebleness and weakness, considering it vulnerable on those grounds (Bourdieu, 2001). I am again less favourable to the essentialist view of gender as sex as it neglects the contributory role played by socioeconomic, political and cultural factors in effecting differential vulnerabilities between men and women (see Holmes & Jones, 2013). Therefore, in this thesis, I will focus on the function of gender as a social construct that distinguishes the differences between men and women's social roles and responsibilities. It seems plausible then to say that, on the basis of their gendered differences men and women are likely to be differentially vulnerable to environmental change.

Unequal genders

According to Lorber (1994), gender is a social institution, probably one of the most portent that categorise human behaviour, human livelihoods, and human experience so to speak. Echoing the same words Bowie (2005) says gender is the most universal and salient organising principle of society. Due to its ubiquitous quality, Lorber also notes that gender is so pervasive that we almost assume that it is bred into our genes (p. 13). To support her view, she cites West and Zimmerman (1987) who idiomatically liken gender to culture, in that it is a human product that everyone constantly does without thinking. In essence, gender is a social construct that is culturally construed. Its tentacles spread to the socioeconomic and political spheres of human existence.

As such, the institution of gender forms distinguishable social roles and statuses, assigns privileges and rights, and consigns skills and capacity (Kabeer, 1995). To accomplish this, gender creates expectations that guide men and women, such that throughout their lived lives, they learn what is expected, see what is expected, act and react in ways that are expected (Lorber, 1994, p. 32). For this reason gender has also been perceived as a

process of structuration and stratification. As part of structuration, gender is said to divide work in the home and in economic production, legitimising those in authority (p. 34). All the while, what women do is typically devalued. This is part of the stratification system of gender, where men are typically ranked above women (p. 33). Approached from another angle, gender consigns skills and capacity, through certifying *who does what?* It assigns the division of rights and claims to resource access, determining *who has what?* It also determines the allocation of authority and control, apportioning *who decides what?* It is small wonder why gender is often used as an analytic category[43] to determine, *who loses and who gains?*

As can be seen, gendered identities are patterned in everyday social life (Jackson, 1998). It is from assessing gender relations that gender based inequalities have been perceived to be particularly skewed towards women (Cornwall, 2005; Quisumbing et al., 2014; Sachs, 1996; Sweetman, 2002; Whitehead & Kabeer, 2001). These inequalities are commonly manifested in the political sphere through the relegation of women, and in the socioeconomic sphere through the deprivation of women. Relegation and deprivation are often linked to the roles and status configurations[44]. To facilitate a clearer understanding of both, Fordham (2004) makes the following claims,

> *While not wanting to represent women as a victim group, we can say that women, as a group, have fewer opportunities than men, as a group. They more frequently occupy a position of dependence on other persons for at least part of their subsistence. They often have obligations to others that compromise their ability to obtain what they need for themselves. Throughout the world, to varying degrees, women still occupy a (usually invisible) triple role: reproduction, production and community management/ activism… At a higher level of analysis we can state that widespread patriarchal structures continue to limit women's*

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[43] Despite this, Ruma (2011) argues that the analytic category of gender is flawed, as gender is an ambiguous term for which there is no universal agreement towards what it really is, who it encompasses, whether or not it is fixed, as well as how many genders there are. In spite of his view which is not widely understood, the implications of gender are understood. This is at least where women are concerned. Where men are concerned, more studies need to be carried out to ascertain how much they are also disadvantaged on the basis of gender. As an analytic category, gender can be used to contribute towards these knowledge gaps.

[44] Women's privation is often dubbed the feminisation of poverty. This will be discussed shortly.

abilities to obtain equality of opportunity. These combine to make some women more vulnerable in particular locations, situations and times (pp. 176,177)

Seeing as women are often the ones on the receiving end of gender based inequalities, gender inequality is sometimes defined as, "*the devaluation of women and the social domination of men*" (Lorber, 1994, p. 35). Gender inequality has been argued to be the most pervasive of all other forms of inequality (Dankelman, 2010). As a result, gender inequality has gained centrality in the vulnerability discourse (Cutter, 1995; Cutter et al., 2003; MacGregor, 2010). As stated in Chapter 3, the concept of 'at riskness' is frequently linked to an 'endangered' population. That is, those found along the social margins. Iteratively, the bond between inequality and vulnerability is founded upon the belief that some groups of people are more prone to damage, loss and suffering based on their social, and to an extent, geographical positionings (Liverman, 1990). Due to gender inequality women are said to feature large among the most vulnerable (Fordham, 2004).

Moreover, given that more men than women receive formal and informal benefits from gender inequalities (Flood, 2007, p. 11), gender is used synonymously with woman (Kolawole, 2004). As a result, the meaning of gender slips and becomes associated with woman only problems. Made (2000) shares her experience of this from a gender training program where people were asked to define gender:

> *Three years ago, during a gender training program for journalists in Harare, Zimbabwe, the group was asked to define the word 'gender'… Anonymously, each journalist wrote a definition of the term on cards which were then pasted on the wall for everyone to see. All kinds of definitions of gender were given: 'women's fight for equality'; 'women attacking men'; 'women fighting for their rights'* (p. 29)

When the correct definition was finally announced as being the socially constructed differences between men and women, it was contested by many of the participants (Made, 2000). Among them was one male journalist who insisted upon the definition of gender as women fighting over their rights. Notwithstanding that some men see themselves as not being part of gender, the unequal encompassing of gender, which

either stems from a definitional ignorance or the deliberate omission of one gender, implies that there is only one gender[45]. Female vulnerability to contingencies is then almost seen as being certain and male vulnerability non-existent. The apparently premeditated outcome finds expression in the concept of differential vulnerability based on gender differences, when in certain settings men are at the outset construed as being androgynous.

Theoretical perspectives of gender in development

Recalling what was stressed in Chapter 3, development often deals in pathologies, where it mainly targets those who deserve assistance. In an overall sense, what I seem to be asking in this study is who are those that deserve assistance, who are the vulnerable men and women? With increasing global concern for environmental changes, this is a question that has become common in studies concerned with gender and the environment. Hence gender justice is sought after for the most vulnerable, many who are thought to be women. There are three main theoretical perspectives that have sought to speak to the reality of women's situations while propositioning gender sensitivity in policy and practice, and these are, Women in Development (WID), Women and Development (WAD) and Gender and Development (GAD) (Tiondi, 2000). Alongside these three, I also privilege the viewpoint of Women Environment and Development (WED).

WID

WID came into effect in the early 1970s after the publication of Ester Boserup's (1970) *Women's Role in Economic Development*. Boserup's research was seminal in focusing scholarly attention on the sexual division of labour (SDL) in agrarian economies, as well as towards the differential impacts of development and modernisation for women (Rathgeber, 1990). As an example, Boserup's research showed that in more traditional communities, women tended to do the majority of agricultural work as hoe wielders, while, in more modernised communities where ploughs and other simple technologies

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[45] I am aware of a possible 3rd, 4th or even 5th gender as in the case of the Bugi people of Indonesia who have 5 identifiable genders, I am also aware of the scholarly debates that contest gender binarism, calling it instead a gender spectrum. I however write in the context of a Zimbabwean heterosexual society where only 2 genders are recognised by the Zimbabwean culture.

had emerged, men did more of the agricultural work. This implies that men had access to better technology and resources. Alternatively, in areas of intensive irrigation-based cultivation, both men and women were said to share in agricultural tasks (ibid). However Boserup's research was later criticized for generalising the nature of women's work and roles, including the reality of African agrarian systems (Ekejiuba, 1995).

Nonetheless, WID surfaced as a critique of the marginalization of women's productive roles, together with the failure of development to benefit women in the allocation of resources. At its very core, WID advocated for equity for efficiency on the basis that women were omitted from development (Parpart et al., 2000). WID borrowed largely from the liberal feminist idea that women's disadvantages are the result of customary expectations held by men, internalized by women, and promoted through various agencies of socialization (Razavi & Miller, 1995). However, in addition to with the criticism that WID generalised the nature of women's work and roles, it was seen as being too woman centric and ahistoric. For the approach overlooked the confluence and influence of other markers of social difference and how these shape relations of exploitation among men and women (Rathgeber, 1990).

WAD

WAD emerged in the second half of the 1970s. In line with Rathgeber (1990), WAD was a neo-Marxist feminist approach which began from the position that women had always been part of development processes even prior to the 1970s. Based on WAD, women were and are still important economic actors in their societies. But their work which is mainly limited to the domestic sphere is non-valorised and not recognised as part of development. Therefore WAD's focus was on the relationship between women and development rather than on strategies for integrating women into development. WAD also recognized that poor Third World men had been badly affected by the structure of the global systems of inequalities. As Rathgeber reasoned further, the downside of the success of WAD was that, like WID, it tended to group men on one hand, and women on the other, without taking note of how other markers of social difference may exercise a powerful influence on their actual social status.

GAD

After WAD came a new wave of gender theory called GAD, which emerged in the 1980s. To date, GAD remains the leading development approach to gender. The movement originated after the realization that a women only emphasis would not effectively capture gender relations (Beetham & Demetriades, 2007). GAD draws on a socialist feminist outlook which argues that women's status in society is deeply affected by their material conditions of life as well as their position in the national, regional and global economies (Parpart et al., 2000). Consequently, GAD recognizes patriarchy and power as being defined and maintained by culture through the norms and values which outline men and women's roles. Also central to GAD are issues of access and control over resources which are accentuated through the concepts of practical and strategic gender needs.

Principally, practical gender needs are those that derive from women's everyday situations and their positions in society (Aslop, 1993). Strategic gender needs are those that go beyond meeting women's practical or immediate material needs as mothers and housewives, revolving more around matters of power and control between men and women (Chant & Gutmann, 2000). The concepts of practical and strategic gender needs were initially used by Molyneux (1985)[46] and later adapted by Moser (1989) to fit her triple roles framework for gender planning. Paying close attention to Moser's triple roles framework, in most Third World societies the stereotype of male the bread winner predominates even where it is not necessarily reflective of reality. Moreover, man the bread winner is generally presumed to be involved in productive work, whereas the woman is typically considered the household manager and her work thought to be merely reproductive. The reality however is that, women's roles are not only reproductive, but also include productive and community work. Unlike WID and WAD, GAD pays more attention to unequal relations between men and women so as to identify the practical and strategic needs of the most disadvantaged. GAD does not only take into account women as the most disadvantaged but acknowledges also the

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[46] Molyneux first differentiated between practical and strategic 'interests' in her study of the Nicaraguan gender policy under Sandinista rule.

disadvantaged men. It is noteworthy that GAD is also participatory in nature (Chant & Gutmann, 2000).

As for the criticism of GAD, Rathgeber (1990) argues that fully articulated GAD perspectives are rarely found in the projects and activities of international development agencies. Most adopted partial GAD approaches. Cornwall and White (2000) concur, arguing that even though GAD claims to draw attention to both men and women's developmental concerns, the reality is that men are still the missing half of GAD. This is because women still carry on as if they are the iconic centre of gender, and act as if they have an epistemological privilege over men in gender matters (Chant & Gutmann, 2002). Men on the other hand realise that their interests and positions are at stake, and that they are ever more considered the enemy (ibid). This may explain further their apathy towards gender issues, including their lack of readiness to own up to their own vulnerability (also see Cornwall, 2000).

WED

Alongside the foregoing theoretical assumptions, the recognition of the connection between the domination and oppression of women by men and the domination and exploitation of nature by men stimulated the debate on Women, Environment and Development. The twin domination theory was inspired by ecofeminism which saw the two forms of domination as being by-products of patriarchy. Essentially, ecofeminism draws from ecology and feminism. WED uses this alliance to bridge the gap between women, environment and development (Bradshaw & Linneker, 2014). Having realised the absence of feminist perspectives in environment and development, WED emerged concurrently with WID in the 1970s. It particularly exerted pressure and stamped its mark after the WCED conference on sustainable development in 1987. According to Braidotti et al. (1994), part of WED's interest groups are the rural women in the Third World, who are thought to be affected more by environmental degradation and the subsequent resource scarcity. For example Shiva (2010) argued that the destruction of nature destroyed women's means of staying alive.

Other major assumptions underlying WED are that women are closer to nature than men (see Ortner, 1972), women's roles are more linked to nature than men's (see

Merchant, 1995) and women are the major food producers (see Dankelman & Davidson, 1993). Women's relationship with nature is partially justified by their female qualities of being nurturers and carers. On these grounds, women are considered to be less harmful to the environment. However, Agarwal (1992) disagrees with the more essentialist tenets of ecofeminism, and somehow settles for what she calls environmental feminism. The common ground between this feminism and ecofeminism is the belief that, as the primary users and managers of the environment, poor peasant women are the worst affected by environmental degradation. Another shared belief is that women's constant contact with the environment gives them more knowledge about it. The absence of their voices from the male dominated environmental political platforms is therefore believed to be problematic, as women's knowledge of their local environments is considered would be instrumental in ending a lot of environmental problems (Bradshaw & Linneker, 2014).

Overall, it is believed that, WED's prominent view of women and the environment mainly features women as a homogenous category characterized mostly by victimhood (Goebel, 2003). Again, being mostly grounded in ecofeminism, WED is almost seen as being essentialist. The assumption that women are more caring about nature based on their nurturing disposition is merely a myth (Cornwall et al., 2008). This is clearly illustrated by Skutsch (2002) who argues that, at a certain time in Eastern Europe, cars were being used more by men than women. On this basis, it could have then been argued that men were responsible for more greenhouse gas emissions than women. Yet women's not owning cars could barely be said to have been an environmentally friendly decision. Instead, it could have been a reflection of income disparities between men and women. Skutsch also gives an example of scenarios where more women than men in the Third World collect firewood for domestic use. In this case, women could be blamed for more greenhouse gas emissions from the burning of firewood to cook. Yet women's resorting to firewood, never mind that it is for lack of better energy alternatives, goes against the assumption that women are less harmful to the environment. Besides, political ecological studies have shown that, regardless of gender, poverty often leads people to degrade their environments (see Blaikie & Brookfield, 1987; Bryant & Bailey, 1997). Hence to a certain degree, citing gender as the sole determinant for who

produces more environmental harm men or women could be a witch hunt that can scarcely yield conclusive, let alone, generalizable results.

Gender, environmental change and vulnerability in rural areas

Most Third World rural areas are characterised by a contextual vulnerability. Among other things, this is caused by an alterity to the more sophisticated urban environments. As Kasperson and Kasperson (2005) explain, the backyard problem[47] reflects a spatial stasis amid dynamic transformations imagined in distant places. It instigates a backwardness that according to Bernstein (2013) leaves peasants with limited options for survival. There is thus a marked reliance on natural capital for survival by rural people (Cavendish, 1999). This is not unusual because, the poor in general rely on natural capital for their welfare and subsistence (WorldBank, 1997). As early as 19th Century England, Marx (1975) had observed that the poor saw it their customary right to harvest nature. Even so, there are problems that arise from this.

Firstly, many of the natural capitals on which rural livelihoods are centred are Common Property Resources (CPRSs). If no boundaries in the form of defined users and rules are put in place to manage these regimes, this soon leads to a Tragedy of the Commons, further accelerating poverty situations. The Commons will be discussed in Chapter 7. Secondly, excessive reliance on the physical environment usually results in increased environmental pressure and degradation (Reardon & Vosti, 1995). The deterioration of environmental infrastructure also intensifies rural poverty (WorldBank, 2008). Lastly, natural capital is more predisposed to biophysical hazards. Seemingly, it is the only livelihood capital that is directly natural hazard dependent. This is why those who rely closely on natural capital for survival are more likely to be vulnerable to environmental changes of biophysical form.

In attempting to trace how gendered vulnerabilities are formed, studies have shown that we live in a gendered world. This is where everything is gendered. That is, gendered division of labour, gendered time, gendered positioning in households, communities and other institutions, including gendered property rights. Like any other social transactions,

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[47] This is a poverty linked to space, as suggested under the section on vulnerable places in Chapter 3. This notion will also be seen coming up in several places throughout the thesis.

gendered relations are characterised by negotiations, bargaining and at worst, conflict (Mudenge, 2008). Taking Third World rural women as an example, they are thought to own fewer resources, do more work, work more hours, occupy lower positions in the home and community, have less political voice and make less decisions. There is therefore very little scholarly contention where their vulnerabilities are concerned[48]. In fact there is no scholarly contention to women's vulnerability, just as there is no scholarly contention to biophysical vulnerability. This juxtaposition is not figuratively linked to the essentialist view of the twin domination of women and nature by men, rather it serves as parenthesis to the reality of the readily acknowledged vulnerabilities of women and the physical environment.

To give a gendered perspective of the environmental changes faced in the Third World, Rahman (2003) employed and adapted Bryant and Bailey's political ecological view of daily and episodic changes[49] (see fig. 4). In light of the twofold eventualities, Goldsworthy (2010) describes the daily changes as chronic threats that challenge women's human security. Equally, she parallels episodic changes to sudden threats that again challenge women's human security. Although episodic changes have as much undesirable effect on women's lives, scholars suggest that it is the daily changes that women contend with on a regular basis. Given that the experiences of such threats are relived daily, women are believed to be chronically vulnerable in their everyday existence. Since I consider an integrated approach to gender and environmental change, I remodel Rahman's illustration to reflect my own research objectives.

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[48] Rural men's vulnerabilities to environmental changes are rarely considered, except where farmers are being discussed as a unitary category.

[49] According to Bryant and Bailey, daily change has to do with those environmental changes that are commonly branded as human induced. Examples are deforestation and soil erosion. Daily changes are processes that are generally slow paced and exceedingly unequal in their impact. Costs are borne most intensively by the poorest who as a result are the most resource-dependent members of community. Episodic change has to do with periodic environmental changes, commonly branded as natural occurrences. Examples are flood and drought situations. These incidences tend to affect everyone, yet again costs are borne most intensively by the poorest and most resource-dependent members of community. Turner et al. (1990) call environmental changes that are planetary in nature, systemic changes, as they impact the whole global system directly. Examples include industrial and consumer emissions of ozone-depleting gases and industrial and land-use emissions of greenhouse gases. Also at global level the winners/losers concept applies as the poorest countries suffer the worst consequences due to limited adaptive capacities.

Figure 4: Gender Dimensions of Environmental Change

Aspect of Change	Examples of physical change	Examples of social change	Rate of impact	Nature of impact	Key Concept	Gender Analysis
Daily	Soil erosion River siltation	Disease dissemination (e.g. pandemic) Changing viability of farming	Gradual or slow setting, may not be perceived for a long time	Cumulative and typically highly unequal; The marginalised are usually the losers	Winner/Loser concept	When quantified and disaggregated by gender, members of the gender with the least coping ability based on who does what, who has what, who decides what, are usually considered the losers. In spite of this vulnerability is first and foremost an individual experience before being turned into a collective experience. This means that there may be people from the 'winners' side who may be vulnerable and vice versa
Episodic	Floods Drought	Disease outbreak (e.g. epidemic) War and armed struggle	Sporadic, often sudden or rapid but occasionally drawn out	May have general impact but unequal sensitivity means the marginalised are usually the losers		

Source: Author adapted from Rahman (2003)

Simplifying further how gender becomes an important aspect in distributing vulnerability, I make use of 6 'who' questions which are central to the Harvard Analytic Framework in gender analysis which will be discussed in Chapter 5 (see fig. 5). The questions ultimately lead to the uncovering of gendered impacts and differential vulnerabilities. Drawing on Figure 5, the 6 'who' questions seem disjointed yet they are interrelated dimensions of gender relationships, which are significant in the analysis of gender inequality and vulnerability.

Figure 5: Gendered Impacts and Differential Vulnerability
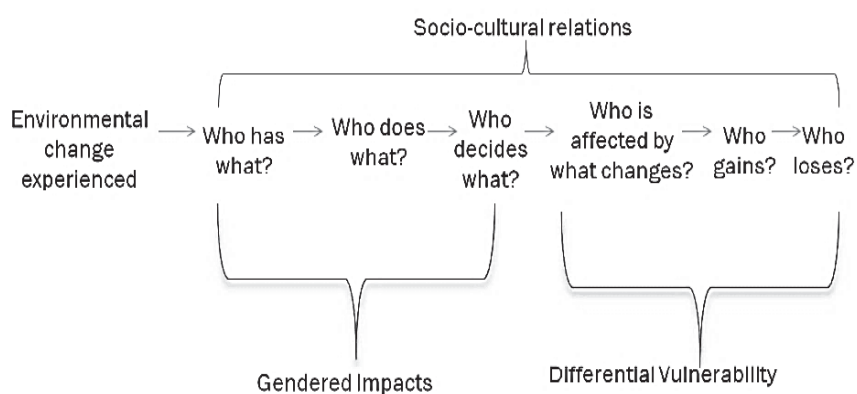
Source: Author adapted from Kabeer (1995)

Who has what?

Who has what is a critical question that has the propensity to singularly show how gender produces inequality in resource access, control and political voice to gain access. According to Kabeer (1995) *who has what* is about livelihood resources (assets or capitals). Resources are critical in that they a primary means through which livelihoods are forged (Cavendish, 1999; Chiripanhura, 2010). Resources are also critical in that they act as a buffer for vulnerability (Eakin & Luers, 2006). This is because an individual's capacity to cope with and recover from exposure to shocks will depend largely on the resources that are within their reach (Bankoff et al., 2004; Birkmann, 2006; Leichenko & O'Brien, 2006; Matthew et al., 2010; Wisner et al., 2004). Also, most importantly, gender is a primary means through which men and women access resources. As with other social transactions, access is moderated by relations of exploitation and unequal bargaining, which means that the rights and obligations to assets are not always equal. The lack of assets in their right mix translates into situations of poverty and outcomes of 'powerlessness' (Chambers, 1995; Narayan et al., 2000). Powerlessness in this context embodies the internal side of vulnerability, which is the inability to cope with external pressures (Bohle et al., 1993; Chambers, 2006a; Eriksen & O'Brien, 2007; Wisner et al., 2004). Powerlessness justifies the existence of weaker versus dominant actors, and also winners versus losers. In general, women as a group are thought to be the poorer than men, hence the coinage of the term 'feminisation of poverty'.

Box 1: Common Characteristics of the Feminization of Poverty

1. Women experience a higher incidence of poverty than men
2. Women experience greater depth/severity of poverty than men (i.e. women are more likely to suffer extreme poverty than men)
3. Women are prone to suffer more persistent/longer term poverty than men
4. Women's disproportionate burden of poverty is rising relative to men
5. Women face more barriers to lifting themselves out of poverty
6. The feminization of poverty is linked with the feminization of house headship
7. Women-headed households are the poorest of the poor
8. Female household headship transmits poverty to children (inter-generational transmission of disadvantage)

Source: Chant (2007)

Quite visibly women's oppression has a material basis (Fordham, 1999). Thus material feminists tie women's oppression with economic status and income levels. Yet while income supplies the necessities of life (Oliver & Shapiro, 1997), it is characterised by stochasticity (Carter & Barrett, 2006). Again, income is only an outcome of opportunity. Taking note of this, Roemer (1998) talks of poverty of opportunity vis-à-vis poverty of income, while Appadurai (2004) talks of poverty as being a consequence of the capacity to aspire. The opportunities that people aspire to are influenced by their environment (geographic positioning) as well as their capability function[50] (social positioning). Within this purview also lays the notion of substantive freedoms and or functionings (Sen (1999). These entail being able to find and make use of opportunities that facilitate the ability to cope with stress and shocks. Fortuitously, this is where Sen's substantive freedoms intersect with Chambers and Conway's livelihood portfolio. The former sees past income, considering instead the welfare benefits of income. Examples include, education, health, nutrition and freedom to exercise choice (Manjengwa et al., 2012b). The latter entails good command over assets that anchor the basis of life choices (Chambers & Conway, 1991), sustaining livelihoods during hard times (Haveman & Wolff, 2001). Examples include physical, social, financial, natural and human capitals.

To expand on the notion of sustainable livelihoods, Chambers and Conway (1991) suggest that early understandings of a livelihood were of it simply being the adequate stocks and flows of food and cash to meet basic needs. Faced with the reality of growing changes, the realisation was soon that a livelihood had to encompass more than just income and consumption for it to be able to withstand stress and shocks (p. 18). In line with the notion of sustainable livelihoods, Chambers and Conway then refined the conception of a livelihood to encompass the capabilities, assets (stores resources, claims and access) and activities required for a means of living. Sustainable livelihoods are therefore those livelihoods that can cope with and recover from external shocks, contributing also net benefits to other livelihoods at the local and global levels and in the short and long term (p. 6).

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[50] Capability function is what a person is capable of doing or being (Sen, 1999).

In total, while it may hold true that gender inequalities give rise to higher poverty outcomes, and to a more severe experience of poverty by women than by men, this is not to suggest that all women are poor, or that all poor people are women (Demetriades & Esplen, 2010). What it does suggest however, is that women as a group have the potential to be discriminated against in accessing and accumulating assets, unlike all men (Holmes & Jones, 2013), which explains why several women have been seen to be predisposed to vulnerability than men (Rayner & Malone, 1998a). Although not widely championed by gender studies, resource poor men also exist (Barker et al., 2010). This notion will be furthered in the section on masculinities.

Valuation of Capitals

To put *who has what* further into perspective, in Zimbabwe, rural people have labour as an abundant human capital (Wekwete, 1988)[51]. Yet other human assets such as education, health and nutrition are often lacking (Manjengwa et al., 2012b). In consideration of the gendered dimensions of the human assets, in Zimbabwe rural women are thought to be more disadvantaged than men (Made, 2015). But when critically conceived, the distribution of human capital in rural Zimbabwe is also modulated by a geographic disadvantage. This is a spatial poverty that is not only defined by physical conditions or remoteness. It is that poverty that also arises from the low endowments of the geographic capital of an area. According to Bird et al. (2010), the endowments of an area explain the proportions of the poverty of the people living in it. Therefore, spatial poverty is a marginality that extends to forms of social services and economic opportunities as well as their accessibility (Liverman, 1990). It presents a vulnerability related to poor health and service delivery, inactive local labour markets, imperfect economic markets, high transaction costs, low economies of scale, low savings rates, as well as lower likely returns on investment (Bird & Shepherd, 2003). Due to marginality, sending children to school may also fail to generate the expected returns, as the time and expense invested in education are often undermined by poor health service delivery and inactive labour markets (ibid). Spatial poverty engenders a poverty of opportunity which often affects everyone found within the vulnerable region, albeit differently.

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[51] Cheap labour is characteristic of most poor populations (Narayan et al., 2000b).

Natural capital has already been identified in this thesis as a major asset that rural people rely on. It is noteworthy that most natural resources that are accessed by rural people are Common Property Resources (e.g. forests, rivers). Like anywhere else in the Third World, in Zimbabwe, rural women's contact with the natural environment is considered to surpass that of men (Brown et al., 2013a). This will be considered further under *who does what*.

In terms of physical capital, rural people in Zimbabwe typically own land, farm machinery and equipment as well as livestock, poultry and any other such domesticated animals. Communal land in Zimbabwe is State owned (O'Flaherty, 1998), and is allocated to each household through the head of house who is customarily the man (Mvududu & McFadden, 2001). Under patrilineal succession systems, property generally devolves through the male line (Cotula, 2007). Based on the regulation practice of customary land rights, rural women thus commonly access land through their male kin (fathers, brothers, husbands, and sons) (Gaidzanwa, 1995). However care should be exercised when grasping the customary land rights between men and women, for the implication is that rural men are full landowners. Yet in principle they only have de facto ownership. The registered title to communal land in Zimbabwe merely gives occupancy and user rights to land. This is based on the Communal Land Act of 1982, Chapter 20:04, which deals with the administration of communal land. Section 3 of the Act vests all communal land in the President (as representative of the State) who is empowered to permit it to be occupied and used in accordance with the Act. Hitherto the State reserves the right to withdraw the rights to the land at any time. This is why Shivji (1998) wittily remarks that, "*customary occupiers occupied such lands not so much as a matter of legal right but at the discretion of the President*" (p. 13). In sum, the State has de jure ownership, the people have usufruct rights.

Understandably, the much contested issue is that rural men are given primary usufruct rights to land, while women typically get secondary usufruct rights to land. Also because, land under this system cannot be sold[52], but inherited, a girl is often not considered as a suitable heir to her father's estate. From this we see that land tenure

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[52] Although illegal, as land becomes increasingly scarce, a market for usufructural rights is said to emerge (Muir-Leresche, 2006).

issues invoke a winners and losers situation (Cotula, 2007). For in the end, it would appear, as Pasura (2010) says, that if women are not owners of land, then they are not owners of crops either. In addition to the question of entitlements to physical capital, rural women in Zimbabwe lack more than just land rights. Mvududu and McFadden (2001) stress how customary laws deny women rights even over property such as cattle, ploughs and farm equipment. This is because customary laws state that property acquired during a marriage becomes the husbands' property whether acquired by him or his wife (Kazembe, 1986). Often, customary laws have perpetuated a male-biased culture that has made it hard for women to enhance their livelihoods. For whenever they are used, it is rarely in the interest of women (Pasura, 2010).

With reference to financial capital, it is said that the rural poor rarely speak of an income (Narayan et al., 2000b) for they rarely have a steady income, let alone savings[53]. Rural income is also not constant because it is prone to several flaws such as seasonality, outcome of farm production as well as market prices (Ellis, 1998). When considered in terms of gender, although rural women in Zimbabwe contribute immensely towards crop production, it is argued that they often do not have much say over the proceeds from the sale of produce or livestock (Chitsike, 2000). To a greater extent men as the heads of household control income expenditure (Mudenge, 2008). Paradza (2010) acknowledges however, that due to the economic crisis, many men are failing to meet their obligations of provider.

 Finally, social capital is composite and is for that reason difficult to consider in terms of its numbers as opposed to the efficacy and quality of social life within a given space. In this thesis, the focus is primarily on kinship as crucial support systems in times of crisis. Watts (1983a) is also of the belief that, "*the role of kinship and descent grouping is one way in which risks are diffused and collective security instituted*" (p. 355). I take it that social capital (kinship) is the recourse that remains when all other capitals fail. Drawing on its non-altruistic function, it could be argued that kinship is a system of unequal resource distribution and that exclusionary politics of gender inequality would weaken

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[53] In any event, FinMark (2014) show that 70% of Zimbabwe do not use the formal banking system, with 74% of those indicating that they do not need a bank account as they cannot afford to maintain a minimum balance required.

its instrumental role as a social capital. It is possible, but what is also certain is that kinship has so far been an invaluable form of risk sharing (see Dekker, 2004; Eldridge, 2002; Zuwarimwe & Kirsten, 2011). It has been noted however that, due to the changing landscape of the environment (scarcer resources), what may have once been a unit of support is gradually transforming into a unit in which members compete for survival (Rwezaura et al., 1995). In such cases, the vulnerable people lose their traditional recourse.

Summing up the capitals

For a quick summative run down of the capitals, I suggest that capitals will never reach the ceiling or be in equilibrium. Hence an optimal situation would be having the crucial capitals in their right mix. Though not ideal, a medial situation would be where people can access crucial capitals, not in their right mix, but have enough to keep them going, while the worst case would be the unacceptable situation of sparse capitals that is faced by most poor communities, including rural communities during the Zimbabwean crisis.

By default, the poor people have fewer assets and much of their wealth derives from human capital (labour) and the natural capital at their disposal (see WorldBank, 1997). To the rural poor, human capital (labour, education) tends to bring lower returns, making the demands on natural capital more destructive. The natural capital base is on the other hand vulnerable to changes of biophysical form, such as the vicissitudes of the weather. Although impacts are gendered, actual exposure to physical changes is oblivious to gender. However, in spite of who has what or controls what, primary usufruct rights to land for instance, are meaningless if there is a prolonged dry spell, or there is no money to purchase input. With limited survival options, financial capital remains in short supply, affecting both men and women, albeit differently. Synchronously, the divestiture of the physical assets that rural people have legal rights to increases, also affecting both men and women. When all have failed, social capital is the last recourse, since lateral relations of reciprocity tend to be viable sources of backup. Yet, the scarcity and competition for resources is an enemy that eats at the core of social capital. These points should be kept in mind going forward.

Who does what?

Who does what is centred on roles and responsibilities. It has to do with activities or what is done and how things get done. According to Kabeer (1995) in an ideal environment, what is done ought to be beneficial to all members of society. Contrary to this, we are frequently told of women with triple roles that are worsened by spiralling resource scarcity. In rural Zimbabwe, it is noted that with decreased quantity of resources, the daily time and energy costs devoted by women towards trip generating chores constitute more than half of the daylight time budget available to rural households. It is estimated that their work could constitute up to 16 hours of non-stop activity (ZWRCN, 2005). Their trip generating chores are often made with head or back loads are believed also to impact negatively on their assumed deficient calorie intake (Mehretu & Mutambirwa, 1992) and general health. Also with decreased quality of fuel wood, rural women may resort to poor quality energy sources which when burned are known to cause ailments of the eyes and respiratory tracts (Harnmeijer & Waters-Bayer, 1993).

Ultimately, as their work burdens intensify, so too do the costs on their physical well-being (Masika, 2002). The ensuing wear and tear of women's bodies is said to be far from ideal in subsistence agrarian economies whose health facilities are barely functioning (Dankelman, 2010). Indeed, Whitehead and Kabeer (2001) note that, the combination of women's cumbersome work burdens; the long hours of work; long distances walked; and the toll taken on their bodies during gestation have resulted in some of the highest maternal mortality rates in the world.

Fundamentally, *who does what* has to do with people and the socio political structures that assign tasks and responsibilities (Kabeer, 1995). According to Bebbington and Kothari (2006) ideally, socio-political structures should act as agents of practice or vehicles of action campaigning for positive action and practice in the production and distribution of resources. But in reality, most societies display socio-political structures that act by reconstituting negative socio cultural practices. Through reinforced divisions in factors of production and resource distribution, chronic inequalities take root. It is these conventions that are said to constrain or enable what is done, how it is done, by whom, and who it will benefit.

Who decides what?

Decision making reflects authority and control. These are the features of social organisation that assign roles and the distribution of resources (Kabeer, 1995). As such, *who decides what* also underpins *who has what* and *who does what*. In general, those in power are thought to ensure that their interests are served. In the case of rural men and women, the examples given of Zimbabwe have revealed that men control most of the resources, and much of the decision making. Dankelman (2002) observed this to generally be the case with most poor rural communities in the Third World. It should be understood that control is considered a masculine trait (Carrigan et al., 1985), which in all likelihood is a principal feature of systems of dominance such as patriarchy (Kandiyoti, 1988). This is where control is exercised in dominating the controlled, and where the controlled are often left without any say, even over matters concerning their own livelihood outcomes (Terry, 2004). There are many instances where men have been unwilling to relinquish some of their control (Parpart, 1995), let alone share decision-making platforms concerning risk with women (Denton, 2002). Decision making is critical in that it determines the amount of latitude people will have in coping with the impacts of environmental change. As already implied, due to relegation and deprivation, vulnerable people will have limited flexibility to cope with impacts of environmental change (Cutter, 1995).

Who is affected by what changes? Who wins? Who loses?

In addressing these questions I firstly reassert my belief in the commonly held view that vulnerability is a function of exposure, sensitivity and resilience. I also advance the notion that exposure to biophysical change is non-gendered, meaning that men and women within the same geographic space are likely to receive equal magnitude, duration and frequency of biophysical change (see fig. 6). Using the example of a flooding event, men will not experience lesser amount of floods because of a social order that privileges them, and women will not experience more amounts of floods, because of a social order that denigrates them. On no account is this possible because biophysical changes are oblivious of gender. Hence I also argue that nature does not lend itself to the wars of men. Simply because there are existing gender inequalities in a society, does not mean that nature would take sides through privileging the dominant

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gender. Similar to the ecological bottleneck effect, there is no natural selection in who receives more intensity of floods, or duration of drought between men and women. Ultimately, it is the social conditions of society that will determine the sensitivity and response mechanisms of a sub population to biophysical externalities.

Figure 6: Congruence model for environmental change (2)
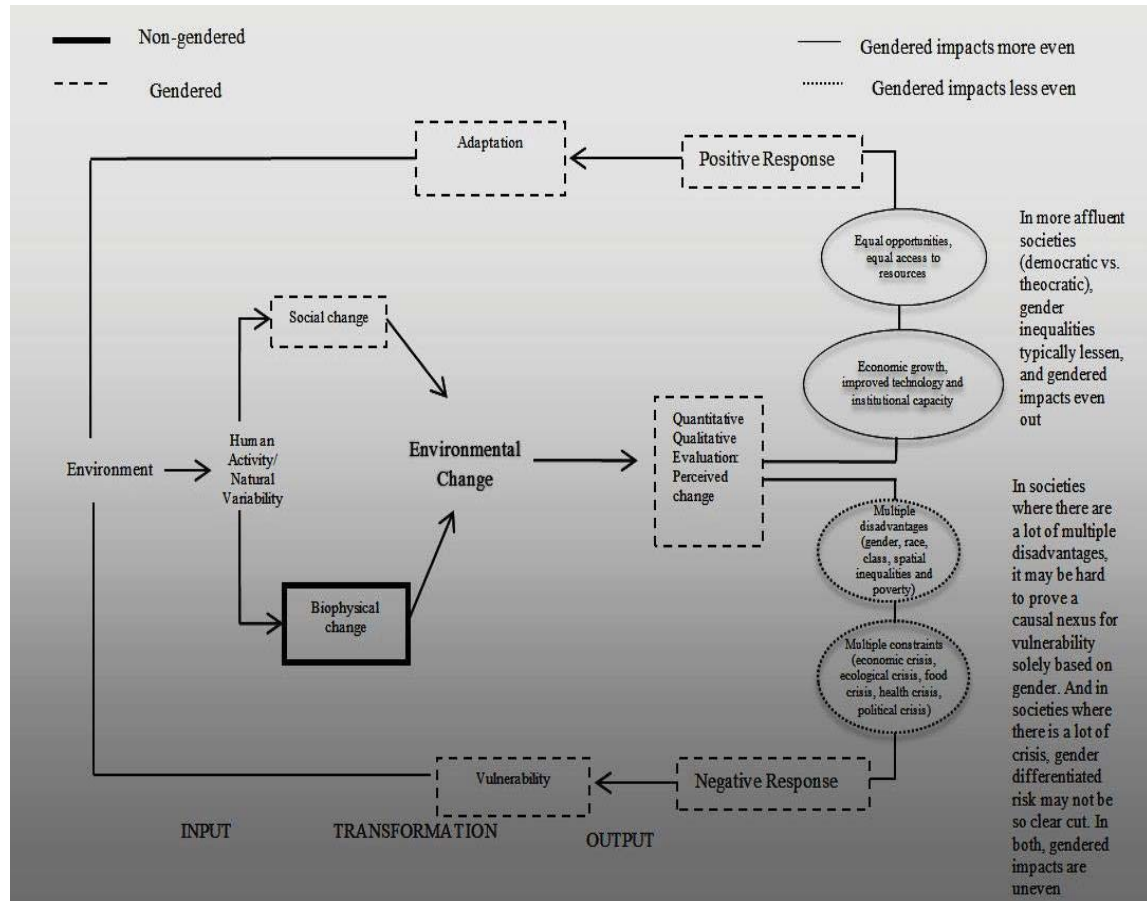
Source: Author, evolved from congruence model in Chapter 2

My argument in relation to the equal exposure to physical changes does not work for social changes, where from the onset, equal exposure to change between men and women is not guaranteed. The marked differences between the effects of biophysical and social changes is all the more reason why studies should, on top of ascertaining which people are vulnerable, ascertain what they are vulnerable to. Nevertheless, in relation to the social component of environmental change, I advance the notion that sensitivity and resilience are both gendered. This is because social systems are organisations that are indeed sentient, and on that basis gender predisposed. The implications of this are seen through the questions who has what, who does what and

who decides what? Since men and women occupy polarised gender domains, they are therefore more likely to be affected differently as well as respond differently to shocks. Take for example a scenario of food insecurity; not everyone in the geographic domain will be exposed to equal exposure of this. Under these circumstances, more men than women may experience reduced food insecurity because of a social order that privileges them, while more women than men may experience more amount of food insecurity, because of a social order that denigrates them.

Locating missing masculinities

Masculinity is antonymous to femininity. Both are constitutive elements of gender that are used to split up men and women into two divergent social camps, the affiliation to which is characterised by the domination of one camp by the other[54]. To explain the perceived character of masculinities, I quickly allude to Edstrom's four M's of patriarchy, namely, 'Male Centeredness, Male Privilege, Male Supremacy and Male Order' (see Edström, 2014, p. 115). In light of the four, it is apparent that masculinity, mostly the hegemonic form, is about aggression, competitiveness, territoriality and above all domination (Connell, 2005, p. 46). Connell goes on to describe masculinity as being,

> *shaped in relation to an overall structure of power (the subordination of women to men) and in relation to the general symbolisation of difference (the opposition of femininity to masculinity)* (p. 223)

Tying this in to earlier statements, the general assumption has become that 'man is the exploiter and woman the sufferer' in more or less the same way that 'man is the exploiter and environment the sufferer'. The usage of man in both scenarios is symbolic of hegemony. In the second scenario man's dominance is illustrated in relation to the anthromophomism cum humanisation and feminisation of the environment as put forward by ecofeminists (Jackson, 2001). This essentialist view is altogether contested (Gaard, 2011). Parallel to the above, the first scenario presents the assumed imbalance of power enjoyed by men vis-à-vis the imbalance of victimisation suffered by women (Goldich & Farrell, 2012). The overemphasised battle of the sexes is like a battle in which only one sex shows up. Faludi (1999) makes similar claims, when she asks,

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[54] Usually the domination of women by men.

Why don't contemporary men rise up in protest at their betrayal? If they have experienced so many of the same injuries as women, the same humiliations, why don't they challenge culture as women did? Why don't men seem to act? (p. 603)

Although the answers to these questions do not receive considerable scholarly attention, Chant and Gutmann (2002) admit that men have been reluctant to own up to their vulnerability. This is because admitting to being vulnerable is commonly seen as an emasculating act. At the same time, men realise that the odds are against them. A practical example is the case of partial gender policies which formed the basis of the argument under the research gaps in Chapter 1. Another example is that of some development agencies which, although committed to GAD, function through WID. That is, through mainstreaming gender from the position of a single normative perspective that is synonymous to women (True, 2012, p. 37). Even supposing this, some men seem to be breaking the veil of silence over their vulnerability (Chant & Gutmann, 2002).

Overall, the general sentiments are that of 'man the winner and woman the loser' (Ehrenreich, 1983). But women are not always the losers (Sweetman, 1998), neither are men always the winners (Carrigan et al., 1985). Cornwall (1997) argues this position through explaining that the notion of hegemonic masculinities is not figurative of man in entirety, but is emblematic of particular ways of being and behaving. Hence it is not all men that can live up to the hegemonic ideal. Rather, men are increasingly finding it harder to live up to this ideal, resulting in an increased discourse on men at risk (see Chant & Gutmann, 2002), more commonly identified as masculinities in crisis (see Carrigan et al., 1985; Cornwall & Lindisfarne, 1994; Whitehead, 2002)[55]. Simply put, men too are vulnerable.

Vulnerable men

Recent studies on masculinities have gone to lengths to show that masculinity is a gender (Gardiner, 2002). Barker et al. (2010) add that two decades of masculinity studies have helped scholars to decode the culture of masculine hegemonism, to which they have reached the conclusion that, power hierarchies between men make many men

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[55] Gardiner (2002) stated that, "the language of a masculine crisis falsifies history by implying that there was once a golden time of unproblematic, stable gender, where everyone was happy with their social roles" pg. 14.

vulnerable[56]. In other words, men too are vulnerable on account of gender. Based on Harper and Harris (2010), marginalised men struggle to atone for their subordinated statuses through defying hegemonic masculinity and constructing alternative forms of masculinity. Alternative forms of masculinities include subordinate, complicit and marginalised masculinities (Connell, 2005). What sets apart the hegemonic ideal from non-hegemonic forms of masculinity is the failure by some men to live up to the socially constructed masculine ideal. This may be due to various social characteristics such as, class, race, ethnicity, as well as prevailing conditions such as economic, or political conditions (Hopkins & Gorman-Murray, 2014). In turn, Faludi (1999) suggests that men have been betrayed by gender. The betrayal of men can be understood on many levels. Firstly men have been treated as androgynous beings. Secondly, they have been bunched under a static unitary identity that is above all thought to encompass all powerful, affluent and oppressive misogynistic elements. Thirdly, men have been betrayed by being seen as non-vulnerable.

In keeping with Faludi,[57] the gender expectations of men the providers and men the protectors have been elusive for many men, more so in light of the heightening trends of economic change. With respect to changes of this nature, it appears that many men are becoming more and more confused about the meaning of masculinity and their roles in the family (Chant & Gutmann, 2002). Consequently, men's vulnerability is exhibited through excessive engagement in aggressive behaviour and risky conduct as compensatory conduct (ibid). According to a WorldBank (2012a) study, risky behaviour is often accompanied by morbidity and mortality trends which seem greater for men (p. 86). Based on the same report, in the Eastern European Block, results show that trends in political and economic transformation often resulted in higher rates of smoking and alcoholism among men, this leading to ill health and premature mortality. The life expectancy for males in comparison to females then declined. For the most part, results

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[56] This is resonant of Pleck (1980) who suggests that women are dominated by men in ways that derive directly from men's own struggle with each other, that is from their patriarchal competition amongst themselves.

[57] Although Susan Faludi is a journalist by profession she has been used as the main voice in many gender studies. I cite as an example the use of her literary contributions from the book '*Stifled: the Betrayal of the American Man*' (see Faludi (1999) by Davis et al. (2006, p. 112) in '*The Handbook of Gender and Women's Studies*'. One of the co-editors of this handbook is Judith Lorber a Professor Emeritus of Sociology and Women's Studies who I have also cited numerously in the earlier sections of this chapter.

from Russia showed that during the period of scholarship women outlived men by at least nine years on average.

According to Barker et al. (2010), in Africa, aggregate data has also shown higher life expectancy rates among women than men. They ascribe these trends to more risky behaviour among men during economic crisis. However the Zimbabwean experience is contradictory. At the peak of the economic crisis (in 2008) women in Zimbabwe had a life expectancy of 34 years, and men's life expectancy was 37 (PHR, 2009). Also in situations of drought in Zimbabwe, a study by Hoddinott and Kinsey (1998, p. 11) observed that there was no variation in men's BMI in the drought years, whereas women's BMI dropped by 3%. Bearing in mind Zimbabwe's known propensity to defy logic[58], I leave a margin of error for the noted differences.

Further evidence of male vulnerability in Africa is presented in a study carried out in ten countries including Burkina Faso, Ethiopia, Kenya and Zambia – the four being examples from sub Saharan Africa (see Kelbert & Hossain, 2014). Results from this study show that in the face of economic transformation, men's roles as providers are threatened. The scholars argue the position of poor men, attributing their vulnerabilities to faulty patriarchal bargains:

> *The majority of men – men on low and precarious incomes – enjoy relatively limited privileges of a patriarchal system, or at least considerably fewer such privileges than relatively recently believed they held. Further, while the privileges seem somewhat fewer, the burdens appear greater* (p. 20)

These scholars call the experience of the men living in or near poverty who are unable to live up to the norms and standards of 'masculinity', the 'poor man's patriarchy'. They add that in the poor man's patriarchy, masculine roles are weakly adhered to, often resulting in a watered down version of masculinity.

A second study in Africa also reveals cases of the increasing disempowerment of men, with increasing economic regression (see Silberschmidt, 2001). In her study based on rural Kenya (Kisii) and urban Tanzania (Dar es Salaam), Silberschmidt demonstrates how

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[58] This statement will be explained fully in the context chapter.

men's increasing disempowerment and decreasing self-esteem is resulting in domestic violence, including promiscuity. She calls it a case of gender antagonism[59]. The crucial features of gender antagonism are espoused also by Cornwall and White (2000) who state that,

there is…evidence that the anger and confusion men experience may be expressed in increased violence and alcohol and or drug abuse, with serious consequences for women and children (p. 4)

In the third illustration, analogous trends are witnessed through a Ugandan study carried out by Vorholter (2014). In her study on the Acholi tribe, Vorholter observed that men are increasingly failing to live up to their provider role. In turn, men's frustrations are being translated into incidences of gender based violence and aggressive sexual behaviour towards women (see Vorholter, 2014, p. 278).

The last case in Africa is slightly different in that it shows how development aid often overlooks vulnerable men. In his study, Morrell (2007) cites the majority of South Africa's black men, who he says remain economically marginalised despite the abolition of apartheid. In the context of changes in the environment, these poor men do not benefit from the patriarchal budget and yet are also ignored by development aid. I tend to agree that poor black South African men are omitted from the development budget because of their gender. However, they are further omitted from the patriarchal budget due to overlaps between class and race constructs. Despite being apartheid free, the South African economy is still largely controlled by a white minority and foreign multinationals (Mbeki, 2011). Given this, the white, including few black male elites seem to be the true embodiment of hegemonic masculinities, while the remaining poor black males appear to resemble the watered down version of masculinity. Since more women than men are the main beneficiaries of gender developmental aid, Morrell (2007) surmises that in the end, poor black South African men lose out both ways.

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[59] Gender antagonism can also be conceived as a form of backlash on women due to the masculine crisis men face when they fail to live up to the masculine ideal. It is a surfacing gap that calls for future research, more so in the area of vulnerability to environmental change.

Conceivably, Morrell's sentiments reflect what Cornwall and White (2000) meant when they stated that, currently some men felt hurt and aggrieved by the exclusionary politics of gender. Morrell's main argument therefore is that, who and what gets left out of developmental interventions[60]. The essence of his very argument is captured by an excerpt from Chant and Gutmann (2002) in which they make the following claims:

> *You could treat a woman every day for a sexually transmitted disease and, if her partner has it and doesn't get treated, then he just keeps reinfecting her… it doesn't make sense to keep wasting medication on women* (p. 276)

Following the epidemiological subtexts of the excerpt, if the goal is to eradicate vulnerability, acts of gender exclusion in responding to vulnerability seem to be a waste of aid. However, for the most part, the gist of Morrell's argument ties in with my own undertaking, where I ask who and what gets left out of vulnerability, through determining how men and women are differently vulnerable.

Male vulnerability in other parts of the world is also evidenced in a study by Barker et al. (2010). In their investigation, they ascribe alcoholism and sexual violence to the failure by some Indian men to live up to the masculine ideal of provider. They further cite examples of the high incarceration rates among African American men as a repeated demonstration of the failure to live up to the masculine ideal. Drawing on a WorldBank (2012b) study that focuses on Asia and the Pacific, results show that in the Pacific Islands of Kiribati, Solomon Islands and Vanuatu, the men who are most likely to exercise aggressive behaviour against their partner and to show signs of risky behaviour, are those men who are unemployed. In the Philippines, such behaviour was noted among husbands from the lowest wealth quintile.

While men often project their vulnerability differently to women, in the past scholars have failed to acknowledge this, and treated all male aggressiveness as part of men's longstanding violent nature. This is not to say that all poor men are violent; or that all

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[60] Although I am in agreement with Morrell's main argument, I question the moral fibre of the question, 'who and what gets left out of developmental interventions', by asking why black South African men should have to wait to be enlisted for developmental intervention programs for them to be part of development?

violent men are poor. Nonetheless, as Butler (2004a) reasons, there is nothing about being socially constituted as women that restrains them from being violent.

Taking everything into account, it is relevant at this point to draw on Bourdieu (2001) who describes male privilege as a trap. Men are held to a certain standard with problematic expectations about the duties of manly men. Unmet expectations result in tension and contention. Patriarchal structures and stereotyped notions of gender often hide such weak images of men (Silberschmidt, 2001). Cornwall and Lindisfarne (1994) then conclude that, "*if unquestioned, a cultural premise that associates men with power amounts to a mystification, benefiting some people and disadvantaging others*" (p. 3). Assumptions that all men are in powerful positions that excuse them from weakness and vulnerability therefore leads to the disadvantaging of those men that are vulnerable.

Conclusion

Up until this point, this chapter has argued that both men and women constitute gender, and that both men and women can be vulnerable. The chapter has shown however that there remains a normative perspective which positions women as automatically vulnerable to environmental change, specifically vis-à-vis men. In doing so women's experiences of environmental change are homogenised and men's experiences are often rendered invisible.   In probing once more this normative premise, I invoke Cornwall (1997) who maintains that,

> *If gender is to be everybody's issue, then we need to find constructive ways of working with men as well as with women…Just because some men occupy subject-positions in some settings that lend them power over people, it does not necessarily mean that these positions are congruent with all aspects of their lives…* (Cornwall, 1997, p. 12).

To support the statement above I also call upon Demetriades and Esplen (2010) who say, "*rather than discount men in gender analysis as if they are somehow non-gendered and resistant to the harsh impacts of environmental change, we need to find spaces to acknowledge and communicate some vulnerability that some men also face* (p. 140). My critical perspective towards gender vulnerability is not an attempted caricature aimed at

furthering enduring gender inequalities. My critical perspective is an attempted admonishment of the use of the inequality manifesto to punish an otherwise vulnerable population of men. Vulnerability is a platform for identifying those who, due to limited agency, will find it the hardest to improve their livelihood conditions when faced with contingencies. It is not a platform for discrimination. In vulnerability studies, the question of gender should speak to both men and women in establishing how they are differently vulnerable. Otherwise the deliberate oversight of men from vulnerability is on its own a form of gender inequality.

Before moving on to Chapter 5, the next section will synthesise the themes that were covered in Chapters 2, 3 and 4, adding more exemplars and explanation where necessary.

A Synthesis of Key Concepts: Environmental Change, Vulnerability and Gender

This section ties together important viewpoints that were carried in Chapters 2, 3 and 4. The featured chapters reviewed literature that analysed critically three of the four key concepts outlined in Chapter 1. The three being environmental change, vulnerability and gender[61]. As highlighted in Chapter 1, the key concepts are bonded together to form the essential structure of the empirical research.

Drawing first on Chapter 2, it stressed on the definitional problem that confines environmental change to biophysical processes of change. This viewpoint was argued as being limiting given that in reality, the collaborative efforts of biophysical and social changes act as indicators illuminative of the overall structure of liability to risk (Dovers & Handmer, 1992). That is to say, both biophysical and social changes are instrumental towards producing overall vulnerability (Cutter et al., 2003). For, while a society may be seen to be vulnerable from an ecological perspective, an evaluation of overall vulnerability must also include the social perspective. Using the example of Africa's variegated topographies, socio-demographic characteristics, environmental and socio-political systems that are riddled with multiple stressors, Chapter 2 attempted to demonstrate the illogicality of isolating biophysical from social changes. Nonetheless,

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[61] Rurality which is the fourth key concept that was introduced in Chapter 1 will be outlined in relation to Zimbabwe in Chapter 7.

taken from a gendered perspective, the overall vulnerability of men and women to environmental change must also include biophysical as well as social changes.

Chapter 2 additionally unveiled an application (praxis) problem that has comparable limiting effects to vulnerability assessments. It was observed that the concept of environmental change is often globalised to the point of obscuring local environmental changes (Salih, 2001). Yet in order to evaluate the overall vulnerability, say, for men and women in micro localities, the men and women affected ought to be able to define the environmental changes of communal concern.

Chapter 3 illustrated the different types of vulnerability, laying emphasis on that vulnerability that is contingent upon risk (i.e. social vulnerability)[62]. It was noted that this type of vulnerability is not normally universal, for it is often underpinned by situation (e.g. environmental changes) and identity (e.g. gender). Citing the common causes for vulnerability, Chapter 3 observed that, social vulnerability is usually a result of a political economy of appropriation and exploitation that denies certain people (identity groups) entitlements or the means to cope with environmental change. The logic underlying this claim is that, depending on their bargaining positions, people will have varying entitlements (Nussbaum, 2000). Thus, weaker people will have fewer entitlements, and consequently, not enough means to cope with environmental change.

Advancing the foregoing premise on the basis of gender, Chapter 4 showcased that women are often in weaker bargaining positions than men and have on top of many domestic obligations, fewer entitlements. The inference that women in general are losers and men winners, translates into the normative assumption that women are more vulnerable to environmental change than men. The normative assumption is contested however in the same chapter, on the grounds that, some men fail to live up to the hegemonic masculine ideal due to social characteristics such as, class, race and ethnicity, as well as prevailing conditions such as economic and political conditions. Earlier on in Chapter 1, it had also been noted that while patriarchy tends to favour men, there are some women that share the same nest(s) and reap the same benefits with hegemonic

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[62] Existential vulnerability is the other type of vulnerability that was identified and alluded to briefly as being universal based on our corporal existence and uniform experience of human frailty.

masculinity (see Muchemwa & Muponde, 2007, p. xv) who thus find patriarchal relationships as rewarding and to an extent beneficial (Cohn & Enloe, 2003). Granted that, the reduction of vulnerability assessments of gender to a binary contrast of men and women in the absence of other markers of social difference or inequalities has in recent times come under constant criticism (Carr & Thompson, 2014).

Emerging literature from postmodern feminism (see Kaijser & Kronsell, 2014) and feminist political ecology (see Nightingale, 2011) now favours intersectionality analyses over the binary gender approach when assessing the vulnerability of men and women to the impacts of environmental change. The concept of intersectionality had emerged however from post-colonial feminists who since the 1980s have called attention to the intersection between gender and inequalities such as race and class (Morrell & Swart, 2005) (see Chapter 5). The intersectional approach maintains that social categorisations should not be regarded as fixed, but should be understood in their specific historical and spatial context and as embedded in power patterns (Kaijser & Kronsell, 2014, p. 422). As Carr and Thompson (2014) surmise, when vulnerability is approached from an intersectionality approach, subjectivities tend to increase, at times, overriding some normative assumptions of the binary gender approach. For instance, on the basis of intersectionality, a rich woman's experiences of environmental change are clearly seen to differ to those of the poor woman or man. The intersectionality approach gives form to the assertion which I strongly uphold in Chapter 4, which is that, there are generalisations about men and women that will not hold true in all places (see Demetriades & Esplen, 2010).

When space is brought into question, another dimension of vulnerability is evoked. Chapter 3 explained the place dimension through placing vulnerable people adjacent to vulnerable places. Vulnerable places it was said, pertain to a geographic disadvantage that can be a result of remoteness to economic and political influence or the marginality of land, soils and climatic patterns that can lead to a poverty of opportunities for the people found in these regions. When construed in another sense, the idea of space in vulnerability is used to refer to the gender domains in which men and women exercise their gender roles, thus showing the everyday movements of bodies in space. In regards to the gender domain, it is often argued that women in Third World agrarian

communities frequently perform their gender roles within harsh conditions (Agarwal, 1997; Davidson, 1993; Kameri-Mbote, 2007; Sachs, 1996). As exemplified in Chapter 4, in comparison to men, the Third World agrarian women are said to be exposed to longer hours of heat as they perform their roles as food producers or as they walk long distances to fetch water and firewood. However, using the same theory of intersectionality, it suffices to say that gender experiences of environmental change within different spaces are filtered further by other markers of social difference. Therefore, a rich woman's contact with the environment would differ considerably to that of a poor woman or man.

The conceptual framing of this study formulates further that, biophysical changes are typically non-gendered in terms of their magnitude, frequency and duration over a geographic space, while the reverse is said to be true for social changes (Chapter 4). There is a possible objection to this argument based on the basis of gender domains. It may be argued that I make a simplistic assumption about biophysical changes being non-gendered when women farmers have been continuously seen to be exposed to heat stress because of where and how they work. To justify my claims further at this point, in my conceptual framework, I consider the spatial domain as being the neutral space where biophysical changes are felt evenly in terms of magnitude, frequency and duration and the social domain as the space where the effects of the biophysical changes translate into different experiences for different people based on social difference. Used objectively, my conceptual framework will not only pick up the effects of heat stress to the female tea pickers in India, but to the male sugar cane plantation workers in Central America too[63].

Put together, spatial, social and other domains of relevance (political, economic) form a context which is locational and situational (see figure 7). In Chapter 1, I make allusions to these two dimensions of context in relation to Zimbabwe explaining how they have created a non-enabling environment for the rural men and women to cope with environmental change. Thus the two have a bearing on sensitivity, or rather, how environmental changes are felt. Chapter 10 will delve more into the issue of locational

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[63] See Williams (2015) for the occupational hazard of heat stress to the female tea pickers in India and male sugar cane workers in El Savador.

and situational context. For now, I call attention to Figure 7 below that outlines the different intersectionalities between bodies and space to produce different subjectivities that ought to inform vulnerability assessments of environmental change.

Figure 7: Illustrating intersectionality in vulnerability (1)
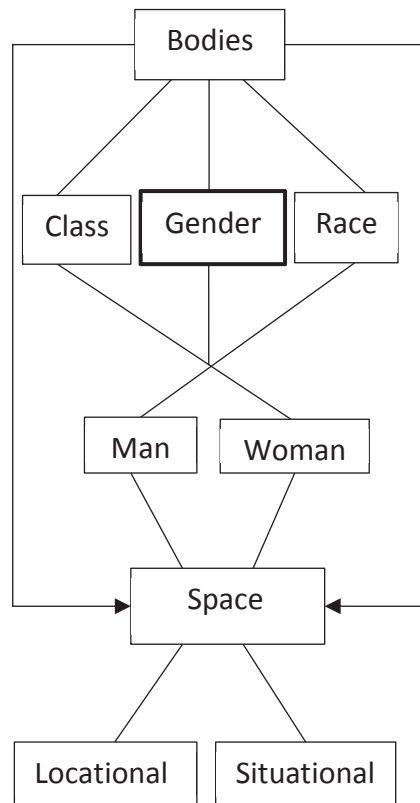
Source: Author

Finally, Wisner (1993) states that, what we believe are important characteristics of vulnerable people at the micro level must coherently relate to beliefs we hold about society as a whole. That is, the macro level and whatever mediating entities we believe link the macro and the local. From here on, I will explain the methodology used in this study, before situating rurality within a broader notion of context.

Chapter 5: Methodology and Field Techniques

Introduction

From the first chapter, I highlighted my interest in the lived experiences of the Zimbabwean rural men and women. This I underlined, would enable me to have a better grasp of the environmental changes of communal concern, and more importantly, to have a balanced understanding of the gendered impacts and differential vulnerabilities of the rural men and women due to environmental change. I chose to represent these aspects of the realities of Zimbabwean rural men and women because I observed that they had not been sufficiently incorporated in the literature as well as by policy documents.

In this chapter, I first of all outline the methodological approach undertaken in preparing for the field which is the research paradigm of the study. According to, Rajasekar et al. (2006), a methodology comprises the concepts and theories that underlie the methods used to carry out a research. Hence I will submit the philosophical lens that I deemed fit for the effective implementation of my research methods. The philosophical lens includes an ontology which holds that experience and meaning is subjective, followed by an epistemology that recognises the agency of the researcher and the researched in the construction of subjective meaning, and lastly, a methodology that is sensitive to the lived experiences of the participants as narrated directly by them.

Next, I will present my field experiences, highlighting first the ethical considerations that guided the field research. I will then move on to explaining my entry into the communities, describing first the sampling techniques and participant demographics before outlining the research methods.

Lastly, I will reflect on the fieldwork, mainly through narrating my experiences in the field at a time when there were political tensions due to the 2013 Presidential election. The reflections on the field also start to give an impression of the economic hardship and poverty felt in the rural areas, which will be furthered and explained in the next chapter.

Research paradigm

Research is a systematic way of solving problems or filling knowledge gaps. It is only through research that knowledge is able to evolve, hence the adage, progress is a product of inquiry. To solve a problem or come up with new knowledge, the researcher formulates a methodology, which on its own is "*a science of studying how research is to be carried out*" (Rajasekar et al., 2006, p. 5). With this in mind, a research paradigm then, is a pattern of theoretical beliefs and assumptions that guide researchers in their thinking during the development of knowledge (Guba, 1990). It achieves this primarily through endorsing what constitutes valid knowledge in the discipline of affiliation, and also, through distinguishing which research methods are appropriate for the chosen study. Not only does the paradigm guide the researcher in their thinking, but it enables the world to see through the lens from which the knowledge obtained was derived. This then associates the researcher with a veritable belief system; a crucial necessity because the field of research is filled with competing truths relating to what should be warranted as credible knowledge (Johnson & Christensen, 2012). The three main components which underlie the research paradigm are ontology, epistemology and methodology. The three will be discussed in relation to my study in the following sections.

Constructivist ontology

Ontology is in general understood to be the philosophical study of the nature of existence. It is grounded on questions such as, what is the nature of reality, or what is the nature of the knowable? (Guba, 1990). I am inclined towards a constructivist/interpretivist ontology[64], because it is a philosophical approach that holds subjective reality in high esteem through recognising knowledge as a product of multiple interpretations of the social world (Cupchik, 2001). To further the notion of constructivism, I cite Schutz et al. (2005) who clarify that,

> *All our knowledge of the world, in common-sense as well as in scientific thinking, involves constructs, namely a set of abstractions, generalizations, formalizations, idealizations specific to the respective level of thought organization. Strictly*

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[64] Constructivism runs parallel with interpretivism.

speaking, there are no such things as facts, pure and simple. All facts are from the outset facts selected from a universal context by the activities of our mind. They are, therefore, always interpreted facts, namely, either facts looked at as detached from their context by an artificial abstraction or facts considered in their particular setting. In either case they carry along their interpretational inner and outer horizon. (p. 55)

Unlike the positivists who take on an objectivist scientific fallacy, constructivists are typically inclined to follow a subjectivist epistemology, which is sometimes referred to as being relativist because all truth is believed to be relative, confirming that there is not one single reality.

Epistemology

According to Guba (1990), epistemology is the study about the relationship between the knower (inquirer) and the knowable (known). It asks what is true and how we know that it is true (Sutton, 1998). Epistemology is thereby linked to the researcher's condition of knowing and the conditions for producing knowledge. Although methodology will be discussed later, this aspect is a step further from epistemology as it seeks to know how then the researcher goes about finding knowledge, or rather what methods are employed in the quest for knowledge. All the same, traditional epistemology approaches knowledge justification through divorcing the context of discovery from the context of justification (Longino & Lennon, 1997). The result is often a value-free knowledge which is said to be impersonal, uninvolved and distant from the knowable (Wolf, 1996). The knower's identity, personal experiences and emotions are also divorced from the knowable (Collins, 1990). This means that, for traditional epistemologists, knowledge has to be independent of the knower for it to be considered unprejudiced. Here we are often dealing with a priori epistemic that is independent of experience and is based solely on logic. This objectivity is often carried by positivists.

Since I am against the viewpoint that knowers must detach themselves from their embodiment and their various beliefs, I subscribe to a subjectivist epistemology, and in particular, a feminist epistemology. On top of being subjective, a feminist epistemology looks at multiple realities from the perspectives of gendered beings. Most of all, it

acknowledges that we are embodied and embedded creatures and that as a result of this, knowledge is value laden (Assiter, 2000).

Feminist epistemology

By definition, feminist epistemology is a loosely organised style of epistemology which emphasises the epistemic salience of gender, and the use of gender as an analytic category in inquiry (Janack, 2004). To underline its scope, Wolf (1996) maintains that feminist epistemology is a heterogeneous enterprise with multiple strands, seeing as its practitioners differ both philosophically and politically (p. 5). Feminist epistemology argues that subjective truth is an unadulterated expression of people's lived experiences. The feminist epistemic reasons that we all carry identities, experiences and values that shape our vision and interpretations of the world. This is based on the understanding that knowers' identities are entangled in social configurations that are gendered, hierarchical, being also historically and culturally specific (Haraway, 1988; Janack, 2004; Mullings, 1999; Wolf, 1996), and which influence the way they relate to the knowable. Hence the feminist epistemic acknowledges both the knowing subject, and the situated knower (Anderson, 2012). Sutton (1998) justifies feminist epistemology through saying,

> *feminist epistemology grows from the consciousness that science is a profoundly political activity…it begins by understanding that scholarly practices are located in time and space and are carried out by people with social and political identities* (p. 13)

In addition, Haraway (1991) argues that,

> *Feminists don't need a doctrine of objectivity that promises transcendence … [We] also don't want to theorise the world, much less act within it, in terms of Global systems, but we do need an earth-wide connections, including the ability partially to translate knowledge among very different – and power – differentiated communities. We need the power of modern critical theories of how meanings and bodies get made* (p. 187)

The preceding is not to suggest that feminists have no curiosity about objective knowledge, but it is to say that feminist epistemologists place emphasis on the situatedness of knowledge. In fact Anderson (2012) argues that feminist epistemology does not altogether rule out the possibility or desirability of objective knowledge, but it raises new questions about objectivity. To add on to this, Haraway (1991) declares that feminists are objective in their own unique way, given that, "*feminist objectivity means quite simply situated knowledge*" (p. 188). So feminist epistemology enables scholars to privilege their positionality through embarking on research with maps of consciousness that are influenced by ones' gender, class, race, national identity, including one's location in time and space (ibid), believing above all that, value laden knowledge is practical (Haraway, 1988, 1991), and value-free knowledge impractical (Wolf, 1996).

Having aligned with a feminist epistemology, which is a heterogeneous enterprise with multiple strands, as a black Zimbabwean woman, I align myself further with the denominational views of a post-colonial feminist epistemology. The reasons for this are given in the section that follows.

Examining my positionality as a black Zimbabwean woman in relation to the Western feminist epistemology

In Zimbabwe, feminism is seen as a monolithic, and as being a derivative of the West used discreetly to recolonize former colonies, albeit psychologically[65]. There is thus a general lack of familiarity with the concept of feminism and of the plurality of feminisms among the Zimbabweans whom I speak to and write about in my thesis. To support these claims, briefly, I allude to McFadden (2003), a Swaziland born, Zimbabwean expat, who sought to rationalise queer politics among women in Zimbabwe. Without delay, she was served with deportation papers, for betraying the Zimbabwean culture and family values. Another example is that of Shaw (2001), a black American feminist, whose efforts to modernize the Zimbabwean women's movement were taken as being a form of cultural imperialism. In her autobiographical narrative she thus wrote:

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[65] Curiously Obbo (1981) who is an African writer argues that the women she encountered in her African study as early as the 1980s, had never heard of a Western women's liberation movement, yet had created their own systems of emancipation. Adichie (2014) said the same of her great-grandmother who did not know the word feminist, but had spent her life standing up for her rights.

As a North American and U.S. citizen I was suspect. By actively participating in the Zimbabwean women's movement I had not shown proper respect for Zimbabwean women, especially because as a noncitizen I could leave and not be held accountable for my actions…How women from the outside should show solidarity with women in struggle was never made clear. Should they write checks? Petition their male counterparts? Type? Host fund-raisers? Work in their home countries? Repatriate? (p. 268).

In the end it appears that Shaw chose to repatriate and type about the struggles of Zimbabwean women from her home country[66]. The extent to which feminism is misunderstood in Zimbabwe is demonstrated further in the narrative below of a Zimbabwean girl, who refuses to be called a feminist,

I am not a feminist because I cannot divorce myself from my cultural context and also because feminism is not practical in my culture, and is for the elite (Kanengoni, 2013, p. 1)

These examples go a long way in showing that in Zimbabwe, feminism is considered as being problematic, is treated with suspicion and is contested (also see Made, 2000, p. 29). As a result, there are generally cultural limits to the proliferation of the Western feminist doctrine in Zimbabwe (Shaw, 2001). Thus, by bringing my thesis into alignment with a post-colonial feminist philosophy, I am able to demonstrate to my Zimbabwean audience that there are multiple feminisms which are other than the dominant Western feminist doctrine whose construction of Third World women problems is structured around the (implicitly consensual) priority of issues which apparently all women are expected to organise around (see Mohanty, 1988, p. 334).

But what is post-colonial feminism and how does it differ philosophically from mainstream feminist epistemology? To draw first on the notion of post-colonialism, this refers to the ways of criticizing the material and discursive legacies of colonialism (McEwan, 2001, p. 94). Making allowances for the often overlooked first-hand

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[66] Carolyn Martin Shaw is still dedicated towards writing about her feminist experience in Zimbabwe. I am looking forward to reading her upcoming book 'Women and Power in Zimbabwe Promises of Feminism: Deferring dreams of equality in post-independence Zimbabwe'. The book was published in December 2015.

experiences of Third World people, McEwan (2009) was noted in Chapter 1 saying that, there is an increasing need to   boost the intersection and dialogue between development and post-colonial studies so as to produce decolonised knowledge. Post-colonial feminists are thus concerned with producing decolonised knowledge, with a primary focus on exploring gender relations in post-colonial societies and correcting the representation of women in post-colonial discourses (Tyagi, 2014). At odds with the imperial glaze, the post-colonial feminists challenge the assumption by Western feminists (inter alia through the mainstream feminist epistemology), that there is a commonality in the forms of women's oppression and activism worldwide. As McEwan (2001) notes further,

> Post-colonial feminists seek to disrupt the power to name, represent and theorise by challenging Western arrogance and ethnocentrism, and incorporating the voices of marginalised peoples (p. 100)

However, having been subjected to systems of subjugation such as colonialism and slavery, respectively, post-colonial feminists and black feminists in America share some measure of commonality that is linked to the struggle against inequalities of race and class. Unlike Western feminists who consider gender as being the highest form of inequality faced by women, post-colonial feminists and black feminists in America consequently regard the intersectionality of gender with forms of inequality such as race and class. This explains the statement by hooks (1989), that, on considering the trade-offs between sexism and racism, many black women in America saw racism as a more pressing evil than sexism, whereas the white feminists had pushed for sexism over racism[67]. Due to the mismatch in feminist values, the black feminists in America also critique Western feminists for making feminism seem like an all-encompassing home for women (Lorde, 2007).

As implied above, there is reluctance by Third World women to use the patriarchal framework from a Western perspective, because this standpoint does not capture fully

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[67] Thiam (1986) argued contrarily saying, women are the last colony of the world, therefore that the liberation of black people is in general far more important than the liberation of women, is an excuse for disregarding women's problems. Thiam's argument is however not representative of all African women, because in Africa, feminism is also described in terms of a plurality, as in African feminisms (see Abbas (2014).

the reality of Third World men and women. According to Mohanty (1988), there is "*no universal patriarchal framework - unless one posits an international male conspiracy or a monolithic, ahistorical power hierarchy*". As Mohanty argues further, "*there is, however, a particular world balance of power within which any analysis of culture, ideology, and socio-economic conditions has to be necessarily situated*" (p. 335).

I cite, Tsitsi Dangarembga, a Zimbabwean writer whose words resonate with Mohanty,

> *I have increasingly become more reluctant to use this model of analysis [patriarchy] as it is put forward by Western feminism, because the situation in my part of the world has one variable, which makes it absolutely different: men are also in a position of powerlessness*[68,69] (Petersen (1994, p. 345)

Aniekwu (2006) clarifies the position taken by Dangarembga, citing that discourses on sexuality and feminism in the sub-Saharan African region are political projects that reflect specific class, cultural and religious interests, and are based on a human rights strategy (p. 143). Therefore although the human rights strategy recognises that women should be equal actors in society (by pushing for their equal access and control over resources, equal economic opportunities and equal political representation), it does not negate the human rights of men (Nnaemeka, 1998). The notion of empathy towards men can in a sense be viewed as a form of loyalty by African women towards their male counterparts. Loyalty will be explored in its various forms in relation to the participant views of vulnerability in Chapter 10.

In her Aboriginal work, Houston (2007) goes on to acknowledge the difficulties that exist when an indigenous researcher looks to conduct research on his or her own people[70]. As she points out, this can be a challenging position as it often demands that the researcher contests the imperial basis of some Western knowledge and the inaccurate images

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[68] The position of powerlessness being alluded to above is a further demasculinisation which on top of race is linked to poverty- a Third World struggle that both black men and women in Africa share.

[69] Ashcraft-Eason et al. (2010) cited a Kenyan feminist theologian who also spoke against a universal patriarchal framework saying, "the hermeneutics of patriarchy that point to men as oppressors is mistakenly derived… it is a non-starter in Africa because, while African women acknowledge men's role in oppression, they do not 'throw stones'" (p. 315).

[70] Similar notions were tendered concerning Pacific people by Gegeo and Watson-Gegeo (2001), who argued that when outside researchers, have examined other cultures, they have often done so from their own theoretical constructs, not from those of the societies they have observed (p. 58).

surrounding the indigenous Other. Houston thus reasons that when caught up in this position, the indigenous researcher needs to present their research in a manner that is respectful to indigenous ways, being reflective also of the ways in which the indigenous people wish to be framed and understood[71]. As such, in echoing the words of, Smith (1999) who is of Māori descent, "*in positioning myself as an indigenous woman, I am claiming a genealogical, cultural and political set of experiences*", (p. 12) of my worldview, and I also write, from "*the vantage point of the colonised which I choose to privilege*" (p. 1). Ultimately, I align with post-colonial feminism because of its recognition of multiple forms of inequalities (i.e. gender, race and class) or intersectionality (see Chapter 4) which informs the positions of men and women in the Third World. By bringing my thesis into alignment with post-colonial feminism with its realisation of multiple systems of inequality, I realise that not all men are winners, and not all women are losers and I am able to impartially hear the rural men and women's voices so as to capture unadulterated multiple realities of their lived experiences. Moreover, by choosing to privilege the perspective of poor rural men and women in Zimbabwe, I agree with all the forwarded arguments that propose that Western derived concepts of gender do not always match post-colonial realities, which can result in an epistemological problem on the part of the latter (also see Oyewumi, 2010).

I now look to discuss methodology as it relates to my research.

Methodology

Methodology has to do with answering the question as to how the researcher goes about finding out knowledge (Guba, 1990; Johnson & Christensen, 2012). It is the way through which one selects and employs methods and techniques to achieve an intellectual goal (Latham, 2005). Based on this view, research methods are merely methodological tools and not the methodology. Since my study is predicated upon understanding of the experiences and perceptions of rural men and women in relation to environmental change, by design, a lot of methodological dilemmas are eliminated. For undertaking observation of the subjective experiences of phenomena from the

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[71] This strand of critique is carried in many post-colonial writings (see McEwan, 2009). In this chapter I will focus mostly on the input submitted by post-colonial feminists.

position of multiple-perspectives and realities leads one on a highly interactive and consultative path of qualitative research. Thus, my study lends itself to a qualitative research tradition.

The qualitative research tradition acknowledges multiple-perspectives and realities, and recognizes the power of research on both the researcher and the researched (O'Leary, 2010, p. 113). It achieves this through viewing events, actions, norms, values and so forth, from the perspective of the people being studied (Bryman, 2003, p. 61), also giving the researcher the leeway to reflect upon their own positionality (England, 1994). I am all the more favorable to the qualitative research tradition for enabling often voiceless people to have a voice which should not only be heard, but listened to, in order to be understood[72]. Hence qualitative research provides avenues for empowering voiceless people such as the rural men and women in Zimbabwe whose voices are so often omitted from vulnerability discourses. In Table 3 below I cite other characteristics for qualitative research.

Table 3: Characteristics of Qualitative Research

Characteristic	Examples/Explanation
Seeks to explore phenomena	Social change in a rural or urban setting; attitudes and behaviors in institutional settings; understanding local processes
The goal is to understand the 'how', 'what' and 'why', finding meaning	Getting to the meaning behind figures, behaviors, processes
Is interpretive, so the researcher seeks to elucidate	Not simply about description (of people, places or processes)
Views the social world and phenomena holistically	Seeks understanding of the interrelationships between peoples, contexts and processes
The researcher is engaged in the research, values are present and made explicit	Researcher is typically aware of and reflects on own positionality
Often focusses on specific groups or communities rather than larger populations	Lends itself to purposive and snowball sampling, rather than random sampling of a population; generally works from the specific up to the broader questions
Generates rich, thick description	Social detail and context is seen as critical to understanding
Findings tend to be unique and context/case specific; to generalize the findings is not the goal	Mostly theory generating, not theory testing

Source: Stewart-Withers et al. (2014)

To capture multiple-perspectives and realities from the viewpoint of the people being studied, I used a one on one interview format, namely, semi structured interviews as my

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[72] See Collins (1990) on importance of dialogue. Collins relates her claims to black feminist epistemology.

main method of inquiry. For triangulation purposes, I used a group interview format, namely, focus group discussions (FGDs) to facilitate the execution of some participatory data gathering techniques. The research methods I used for data gathering are explained under my field experiences. For now, I present a summary of my philosophical framework as seen in Figure 8 below.

Figure 8: Summary of my philosophical framework
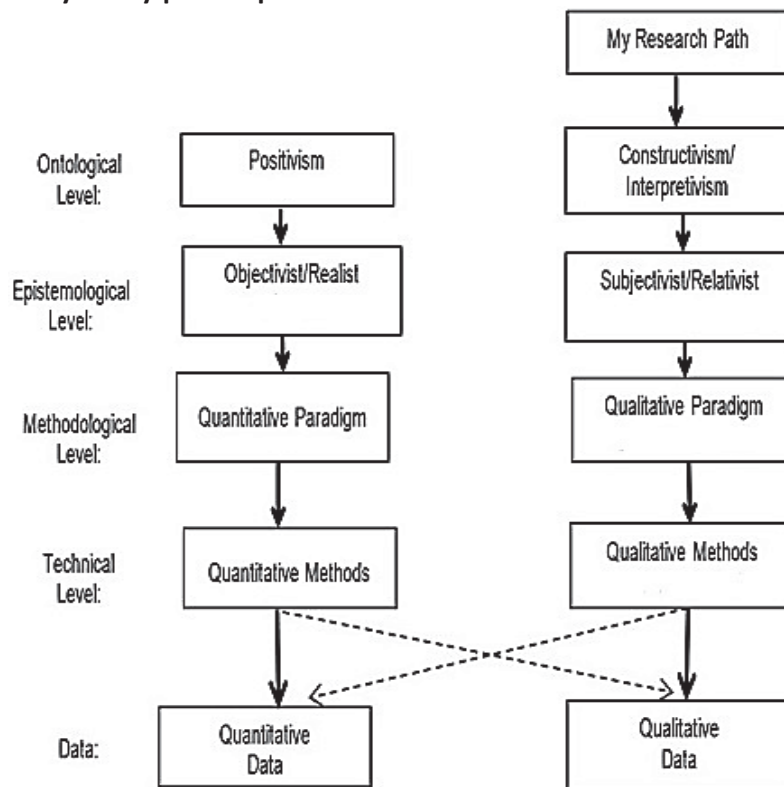
Adapted from Niglas (1999)[73]

Having shared the philosophical underpinnings of my thesis I now move to exploring my field experiences.

Field experiences

To begin the exploration of my field experiences, I start by underlining the ethical considerations that I adhered to in the field, followed by how I gained entry into the field.

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[73] Regardless of their widely insinuated leanings, it does not mean that methods found within quantitative and qualitative research traditions cannot be used interdisciplinarily (Bryman, 2003). Their being used on a quantitative and qualitative continuum suggests that there is no paradigm that is ultimately sufficient in itself (see Niglas, 1999)

Ethical Issues

Ethics have to do with the moral principles or rules of behaviour that dictate what is acceptable or allowed when conducting certain activities (O'Leary, 2010, p. 41). As O'Leary elaborates, researchers also need to adhere to a particular code of conduct when doing research. Citing Beauchamp and Childress (1983), Bricki and Green (2007) agree saying, when undertaking research, each researcher should at least be concerned with four basic principles, which are; autonomy (i.e. respecting the rights of the individual), beneficence (i.e. doing good), non-maleficence (i.e. not doing harm) and justice (especially equity) (p. 5).

 In preparing for the field, I therefore had to seek authorisation from Massey University's Ethics Committee to conduct my study, which however was classified as being low risk to human health, welfare and security. In light of the screening process done by the Ethics Committee prior to fieldwork, an ethics approval is a valuable part of research that ensures that the researcher adheres to the accepted ethical standards of research. Hence the ethics process helped me to identify the boundaries that define what an ethical research looks like within Massey University's Ethics Code of Conduct. Altogether, my ethical duty as researcher, researching people's lived experiences, was to consider the ethical considerations seen in Table 4 below.

Table 4: Massey University Ethical Considerations

a) Respect for persons
b) Minimisation of harm to participants, researchers, institutions and groups
c) Informed and voluntary consent
d) Respect for privacy and confidentiality
e) The avoidance of unnecessary deception
f) Avoidance of conflict of interest
g) Social and cultural sensitivity to the age, gender, culture, religion, social class of the participants;
h) Justice

Gaining entry into the communities

I carried out my fieldwork in Buhera and Nyanga, which are two Districts situated in Zimbabwe's Eastern Province of Manicaland. As will be discussed extensively in Chapter 7, the two areas are dissimilar in many ways. Yet, their striking divergences are what stirred in me the curiosity to replicate the study in the two areas. Being bound by a

unifying situational (in terms of crisis) and to an extent, locational (in terms of a rural disadvantage) context, I sought to see whether the experiences of environmental changes for the rural men and women in the two areas were any different. I thus used a case study approach to the extent that it enabled me to retain the holistic and meaningful characteristics of real life events and processes in the two areas (see Yin, 2003, p. 2). Moreover, through the use of case studies, I was able to narrow down the research to a manageable micro scale to uncover multiple perspectives and gain a deeper understanding of the contextual conditions, both of which were relevant to the phenomenon under study.

As the first step to carrying out fieldwork, I approached GOAL Zimbabwe as a deliberate move to gain access to the work that was being carried out by this organisation in the rural areas, and to take advantage of the organisation's strategic alliances with the traditional and local government leadership[74,75] (see fig 9).

Figure 9: Entry into the communities
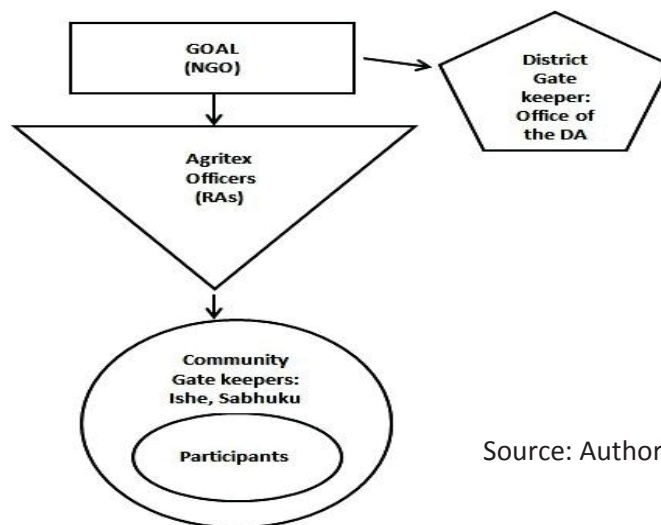
Source: Author

From the rural areas served by GOAL, I settled on two Districts within Manicaland province, which are as highlighted above, Buhera and Nyanga. This was an independent decision that was also predisposed due to my tribal affiliations. For, not only was I born in Manicaland, but it is a province with considerable history in terms of my family

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[74] GOAL Zimbabwe is an Irish based organization that carries out community based interventions in several Zimbabwean rural communities.

[75] In his Darfur study, de Waal also took advantage of connections with Save the Children, an NGO working within his case study areas (de Waal, 2004 pg. 4).

heritage. My ancestry on my maternal side is tied to the 'Shava Museyamwa' dynasty which originated from Buhera and on my paternal side, to the 'Nhewa Simboti' dynasty which originated from Nyanga. As a result, although I was technically an outsider by virtue of not permanently residing in the selected communities, and in terms of class and life experiences, I still felt a sense of belonging based on ethnic associations. Wolf (1996) comments on this kind of relationship by stating that, "those who studied a group to which they belonged often claimed to have an advantage that led to a privileged or more balanced view of the people/society under study" (p. 15). Notwithstanding my ethnic roots and sense of belonging, I had to use connections with GOAL to gain access to the office of the District Administrator (DA) for clearance to enter the respective rural Districts for the purposes of collecting data. GOAL linked me further to the agricultural extension workers who I used as my research assistants (RAs)[76]. In this chain of events, the RAs linked me to the community leadership (*Sabhuku's*) acting as the community gatekeepers[77]. The RAs also helped me with the sampling (which was purposive) and recruitment of participants.

Sampling Techniques

Participants for the one on one interviews which were semi structured, were selected using non-random samples known as theoretical or purposive samples. In total, 20 interviews were carried out in each case study area, 10 from men, and 10 from women. More will be said about semi structured interviews under the section on research methods. Purposive sampling is non-random in that only the sample that is most likely to generate useful data for the study is selected (Bricki & Green, 2007). Hence, purposive samples are ideal when seeking to represent misrepresented, marginalized or unheard elements of population (O'Leary, 2010). To ensure credibility of the sample, Bricki and Green (2007) suggest using the maximum variation sample technique to select key demographic variables that will most certainly have an impact on participant views of the topic (p. 9). The combinations of the demographic variables chosen are then placed in a sampling grid as seen in Table 5 below.

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[76] The ethical and practical issues associated with the use of extension officers as RAs will be discussed further in the final section of the chapter.

[77] Sabhuku is a head, especially of a village community, officially known as the Headman. The office of Sabhuku was created under colonial rule, as a designation lower than the Chief. The name Sabhuku is derived from his office as the keeper of the 'book' – the village tax book, later village population book.

Table 5: Sampling grid for my study

Participant by gender	Age	Marital Status	Education
Men	>20	Married	Not important
Women	>20	Married	Not important

To justify my demographic variables, in identifying samples, I was looking mostly for married people above the age of 20. This is so that I could get a sense of how gender relations worked within the rural homes. The age factor was imperative in that, many rural people marry young, hence I chose to interview those that had been married for slightly longer, and had their own homes. The younger couples were said by the RAs to mostly stay at their parents' homes. To identify the households for interviewing, I relied on the knowledge of my RAs who were well acquainted with the villages. Thus, they knew which households would likely have persons that matched the demographic variables we were looking for. In as far as the actual households chosen is concerned, a simple random sampling technique was additionally used. Here, households of the persons matching our demographic variables were chosen entirely by chance, meaning that every household had the equal chance of being included in the sample.

For the group interviews, I was however able to encounter a cross-section of participant views, which were inclusive also of the contributions from the non-married people, both young and old. This is because there was no selection criteria used in selecting participants for group activities, as I used convenience sampling. More will be said about FGDs under the section on research methods. Convenience sampling is usually used to form focus groups based on who is available that day, rather than according to clear criteria (see Bricki & Green, 2007). However, rather than rely on information from people loitering at a local community centre on a scheduled day, an 'invite to attend' would be sent out by word of mouth days prior to the interview. The process entailed *kusuma* (inform) *Sabhuku* about the intent to carry out a group interview. *Kusuma* is generally a *Manyika*[78] ritual performed to inform, announce or communicate something important to respected persons. Having notified the *Sabhuku* of the intent to carry out a group interview, he would then send out his *nhume* (messenger) to announce the date

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[78] The Manyika are a dominant tribe of Shona people that are found in Manicaland province.

of assembly to the villagers. The conventional meeting places for the group interviews were usually the *Sabhuku's* homestead or *pa chikoro* (the local school).

The following are the participant demographics noted only in the one on one interviews, for this is the only platform that enabled the exchange of such personal information.

Participant demographics

As stated already, my target sample for semi-structured interviews were those who were at least 20 years and above.

Figure 10: Age of participants in both Case Study Areas

Age

■ 20 - 35 ■ 36 - 50 ■ 51 - 65 ■ 66 - 80 ■ 81+

- 8%
- 10%
- 40%
- 12%
- 30%
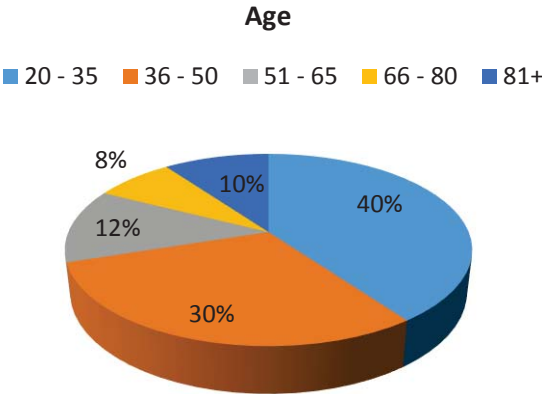
As also already stated, I targeted mostly married people in my sample for semi structured interviews. This was irrespective of widowhood, divorce or separation in terms of distance.

Figure 11: Marital status of the participants in both Case Study Areas

Marital status

- Widowed 17%
- Divorced 5%
- Married 78%

■ Married ■ Divorced ■ Widowed

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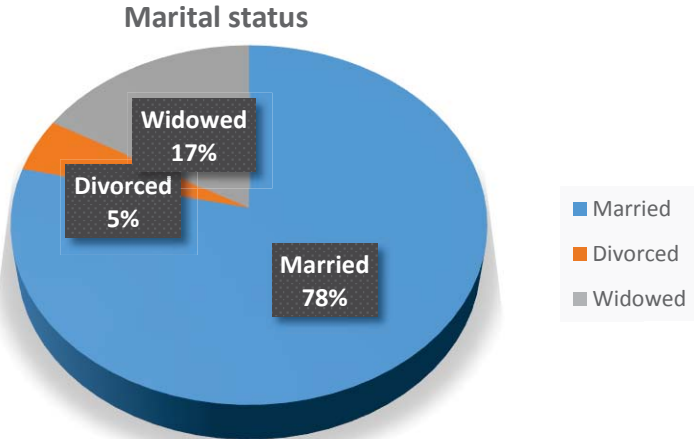
78% of the sample for semi structured interviews was married, 17% widowed and 5% divorced. This does not have an effect on the actual results of the study because at the end of the day, the sample was representative of 50% responses from men and 50% from women signifying a gender balance in participant responses. Nonetheless, I also took stock of the present vs. absent husbands working as migrant workers.

Figure 12: Composition of absent and present men in both Case Study Areas

Taking stock of the migrant men

- Absent male: 35%
- Present male: 65%
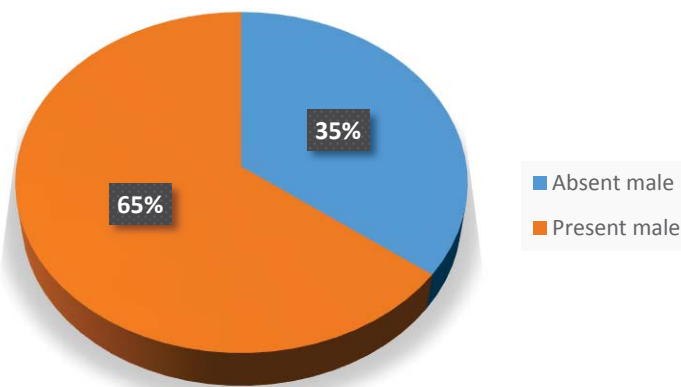
Lastly, although this was not a criterion for participant selection, I looked at the educational qualifications of those who participated in the semi structured interviews. On its own level of education is an indicator for human development, and is stressed by MDG 2 and SDG 4.

Figure 13: Education qualifications of participants in both Case Study Areas

Education

- No education: 7%
- Above grade 7 but below O'level: 27%
- Below grade 7: 8%
- Grade 7: 20%
- O'level: 38%
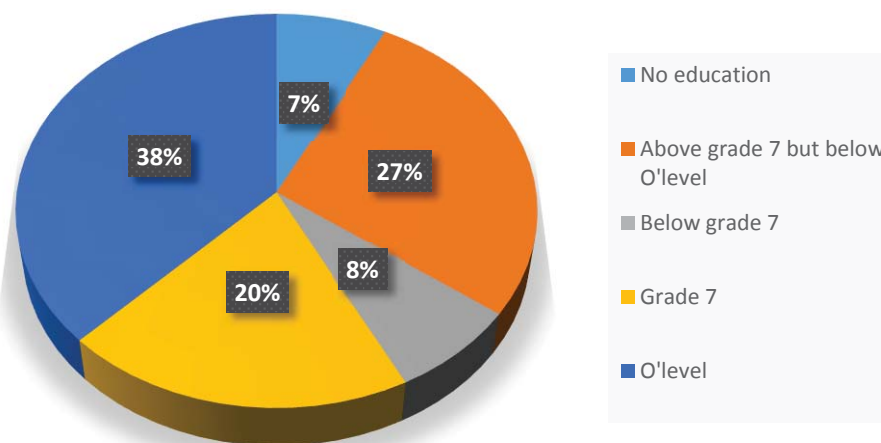
Although 93% of my respondents had at least 'seen the door of a school' in their lifetime, it is noteworthy that the 7% that had never been to school were all women. Additionally, the bottom 15% of the less educated were women, while the top 35% of the most educated were men (see fig.14).

Figure 14: Education by gender
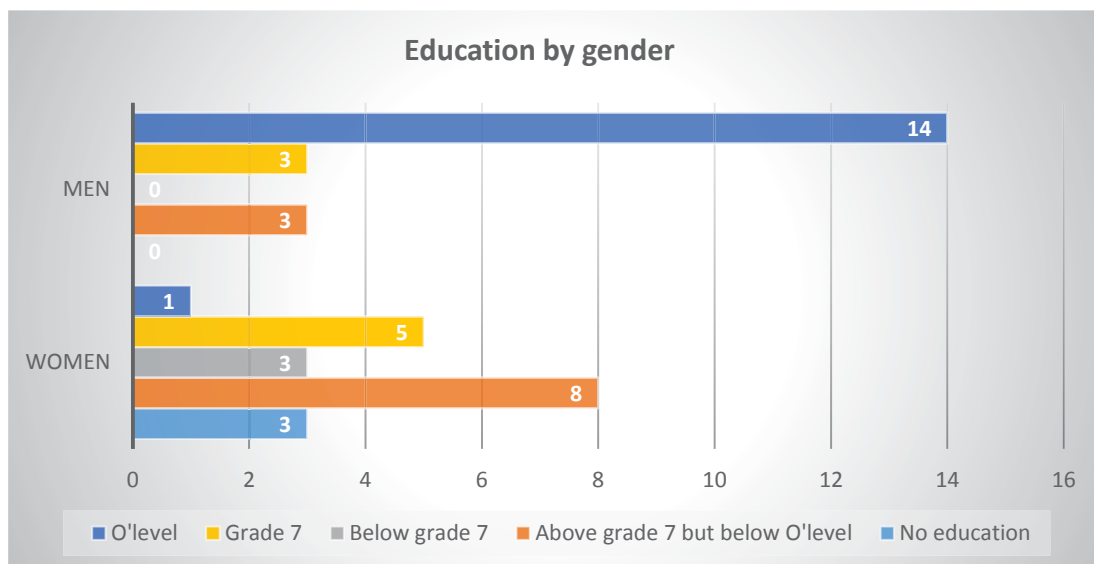
This data paints a rough image of the educational prospects that may be available to the men and women in rural Zimbabwe. The data shows that the upper percentile of those that had at least gone up to Ordinary Level (O'level) fell to the men, while the upper percentile of those that had failed to go up to Ordinary Level fell to the women. O'level is equivalent to a GCSE certificate in the UK education system and an NCEA level 1 certificate in the New Zealand education system. An O'level is the principal certificate that can earn one a rudimentary qualification in Zimbabwe. As an example, even a domestic worker is now expected to have sat for O'level exams. Two things should be noted however. First, the sample is not representative of all rural areas in Zimbabwe and therefore generalisations on educational credentials cannot be made based on this sample. Second, even though the sample reflects that 70% of the men had studied up to O'level, this still does not tell us whether or not these men managed to get 5 O'levels and above, which is the minimum requirement to either get a basic qualification or proceed to further studies.

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Research Methods

From what has been noted already, my study lends itself to one on one and group interview formats. By design, narrative expressions are best captured through qualitative research methods, for this research tradition is concerned pretty much with depth over quantity (O'Leary, 2010). In the following section, I will deliberate on my use of semi structured interviews first, before examining how I used the group interviews to facilitate participatory research techniques.

Semi structured interviews

Semi structured interviews are an interview format that is characterized by the interactional exchange of dialogue (Mason, 2002, p. 62) to elicit the subjective lived experiences of people. Although guided by pre-determined open ended questions and or set guidelines, semi structured interviews offer no fixed range of answers to the questions asked, thus allowing for in-depth and detailed data (Ayres, 2008) to be captured. The usefulness of semi structured interviews as my main method of inquiry stems from their simplicity, practicality and effectiveness, especially when collecting data of things that cannot be calculated or easily observed, such as, feelings and emotions (Glesne & Peshkin, 1992). Lastly, semi structured interviews do not only make it possible for multiple perspectives to be heard, but are a method of inquiry that transcends illiteracy (Sutton, 1998). Hence, they appealed to me as being a non-discriminatory technique to use to elicit information from rural participants.

See Table 6 below for the total number of semi structured interviews carried out in each case study area according to gender.

Table 6: Number of semi structured interviews

	Participants	
Case Study Area	Male	Female
Buhera	10	10
Nyanga	10	10
Total	20	20

Even though semi structured interviews are an invaluable research method of quantitative research, qualitative material such as that obtained from lingual based

consultative processes is typically marked by politics of speech (Jackson, 2006). That is, the contradictions and ambiguities of speech as presented by 'self' in a conversation or interview, all of which is said to create enduring problems where talk is the sole evidence (Jackson, 2009). Also, while semi structured interviews can be used as the sole data for qualitative research, they are be difficult to replicate. For, they are often based on non-sequenced and non-standardised questions where participants across the board may be asked different questions. This tends to mean that the overall results from the interviews may be non-standardised. As a result, I made use of complementing qualitative methods that delve deeper into practices as opposed to speech. The complementing methods I used include a range of participatory methods exercised through group interviews. The use of mixed methods in this study may thus be conceived as way of triangulating data.

See below in Image 1, Researcher carrying out a semi structured interview in Buhera.

Image 1: Researcher carrying out semi structured interview

Participatory Research Methods

In view of the given characteristics of qualitative research, the subjective experiences of vulnerable populations which include poor rural people and women, are best understood through participatory research (Chambers, 1994). Often, in participatory research, information is generated by the community, and for the community through verbal discussions, and visual techniques of maps, models and diagrams (Joseph, 1991). In my study, I used the participatory method of focus group discussions as the platform

for carrying out participatory techniques such as community maps, seasonal calendars and trend analyses. I also used focus group discussions as the platform for carrying out 'Gender Analysis', which according to Byram (2001) is essential for analysing gender differences. The participatory techniques of gender analysis used in this study include activity frameworks, time-role frameworks and ownership and control frameworks. Details regarding the techniques used will be given at a later stage.

By definition, participatory research is said to be systematic inquiry carried out with the collaboration of those affected by the issue being studied for the purposes of effecting change (Mercer et al., 2008). Put differently by Gonsalves et al. (2005), participatory research can be framed as doing "research and development work with people", instead of doing "research and development work for people" (p. 2). Participatory research has foundations in participatory development, and has been the cutting edge of the bottom–up approaches of development practice since the 1990s (Guijt & Shah, 1998). Central to participatory development is a people-centred, community driven empowerment that is aimed at increasing the involvement of the economically and socially marginalised people in decisions concerning their own lives (ibid).

Some prominent participatory methods that have gained popularity in research, development projects and rural extension in developing countries include Rapid Rural Appraisal (RRA), Participatory Rural Appraisal (PRA), and Participatory Action Research (PAR) (Goebel, 1998). However, as Goebel notes, while participatory methodologies offer multiple ways of conducting people-centred research, the inappropriate use of these models of inquiry can lead to dangerously faulty representations of complex social worlds.

 Mercer et al. (2008) thus outline guidelines for undertaking participatory research, some of which are that, (1) the beneficiaries, stakeholders or intended users of the study should be described adequately enough to assess their representation in the project (2) the research questions should be developed (or refined) through a collaborative process between the researcher(s) and intended users and (3) the research project should reflect sufficient commitment by researchers and intended users to action (for example, social, individual, and or cultural) following the (learning acquired through) research. In

order for all the guidelines to be adequately met, the sustained immersion of the researcher among the researched is required for longer periods, as participatory research should be a process not a once off event (Chambers, 2005).

With their overarching aim of empowering local people, participatory research methodologies are however often imbued by politics of representation, for there is always a demand to know whose views are really represented through the participatory processes. As an example, it is argued that participatory research presents a 'fictional community' (Brockington & Sullivan, 2003), as based on the community's ceremonial view of itself which it exhibits to outsiders but is not true of the actual (Mosse, 1994). It is believed further that, the voices belonging to dominant worldviews, and mostly male vocabularies are the ones that are often represented in participatory research (Pearson & Jackson, 1998). At the same time as this, it has not been uncommon for participatory processes to be marked by hidden agendas and strategic manoeuvres (Pottier, 1997), whereupon the researchers or outsiders have failed to put behaviour and attitude before methods resulting in them dominating the field instead of the other way round (Chambers, 2005).

Thus, while participatory approaches seek to empower the underrepresented, they sometimes turn a blind eye on the political structures and practices which constrain the people they seek to represent (Kothari, 2001). And while they are thought to have the capacity to discover who has what? does what? and decides what?, participatory approaches are in the danger of encouraging the "...reassertion of power and social control not only by certain individuals and groups, but also by particular bodies of knowledge...because local power relations are shaped by the very relations which are being investigated..."(Kothari, 2001, pp. 142,143).

Bearing in mind the strict guidelines of participatory research and the politics of representation that surrounds it, I chose only to borrow from some of the loose techniques of collecting data. For it was imperative that I seek wider and meaningful participation of participants in my study, first, to enable the participants to become co-constructors of knowledge about their situations and second for triangulation purposes.

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As will be reinforced in Chapter 11, the co-constructed knowledge was collected with the hope of seeking improvements in local situations, needs and opportunities.

I now go on to give a more detailed outline of the participatory research methods I used in the order that they were employed.

Focus group discussions (FGDs)

FGDs are a type of group interview that are used to stimulate rich discussion to enable people to analyse, discuss and deliberate on their situation. Similar to semi structured interviews, FGDs also make allowances for multiple perspectives to be heard (O'Leary, 2010). However, while semi structured interviews aim to obtain individual attitudes, beliefs and feelings, FGDs elicit a multiplicity of views and emotional processes within a group context, and are thus useful when seeking to obtain multiple perspectives surrounding the same issue (Gibbs, 1997, p. 2). To this end, FGDs serve as a perfect triangulation medium (Narayanasamy, 2009). Being a participatory research method in their own right, in my study, FGDs were instrumental in the execution of other participatory activities. For, they made it possible to stimulate rich discussion with group members first before engaging participatory techniques such as those visual in nature.

It is worth noting that, although we had tried (my RAs and I) to create a conducive atmosphere for group members to participate freely, due to power differentials, it was common to sense tension among the participants. This was mostly noticeable in the mixed sex FGDs (see Chapter 8). Also, while the desirable number of participants in FGDs is said to be ideally 8-12 people (Tynan & Drayton, 1988) it was common to have people turn up in larger numbers[79]. As will be noted under reflections on the field, in an environment where "pen and paper had become synonymous to registering for aid" (see Batisai, 2013) people usually responded very well to calls for group gatherings.

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[79] For example, in Buhera, the smallest FGD had 12 people, and the largest up to 18 people. In Nyanga, the smallest FGD had 8 people, and the largest up to 15 people. These were the recorded numbers of people at the start of the FGD. During the process it was not unusual for more people to join in as others left, for the FGDS were held in open space. While larger FGDs are often said to be difficult to manage (Krueger & Casey), we could not turn away people that had heeded to the *Sabhuku's* message, as doing so would have been culturally inappropriate. However, once a group became too large to manage, we broke it down into two, the challenge being that I could not be present in the 2 groups all at once. Hence with two RAs facilitating each group, I would have to move in between the 2 groups. Another problem I noted also with having large groups is that, there were dominant voices that seemed to drown the voices of others, while some people, mostly women seemed very restrained in the presence of men (See Chapter 8).

Table 7: Structure of focus group discussions

Research Method	Case Study Area	
	Buhera	Nyanga
Focus Group 1 (mixed sex) (community map, seasonal calendar, timeline)	1	1
Focus Group 2 (single sex) (activity framework, time-role framework, ownership and control framework)	1	1

According to what has already been noted, the participatory techniques in my study served mainly as triangulation mediums for the ethnographic material elicited in the semi structured interviews. I will outline further, the visual participatory activities that were facilitated under each FGD.

Focus Group 1: Community mapping, seasonal calendars and timelines

The first focus group was usually mixed sexed. Table 8 shows the participatory techniques carried out under this first focus group.

Table 8: number of visual participatory research methods (FGD 1)

Participatory Research Technique	Case Study Area	
	Buhera	Nyanga
Community Map	1	1
Seasonal Calendar	1	1
Timeline	1	1

Firstly, a community map is a technique that documents a visual image of the community. It depicts infrastructure, natural resources, settlement and cropping patterns. Secondly, a seasonal calendar is a technique that determines seasonal patterns and trends throughout the year. It can be used to ascertain rainfall distribution and agricultural production among many other things. Lastly, a timeline is a technique that communicates the trends or major events in the community's past. In my study, the participants were highlighting the environmental changes that were noted over the past 40 years.

As noted earlier, I used participatory techniques for triangulation purposes. That is, to tap into collective memory so as to enhance the richness and quality of data given in the

semi structured interviews. Therefore, through the use of community mapping, the triangulation process entailed verifying the ethnographic chronologies given of the condition of the community resource base, both from the built and natural environments. Such information aids an understanding of the range of options that are at the community's disposal, and that can be transformed into coping mechanisms in the face of environmental change. And through the use of seasonal calendars and timelines, the triangulation process entailed verifying the ethnographic chronologies of environmental change given with an estimation of relative magnitude.

See below Images showing visual participatory data gathering activities.

Image 2: Community mapping exercise

Image 3: Timeline being constructed

Image 4: Seasonal calendar

Focus Group 2: Gender Analysis (activity framework, time–roles framework and ownership and control framework)

The second focus group sought to perform an exploration of the relationships of women and men in society, and the inequalities in those relationships, hence it was single sexed. Such diagnosis of gender when carried out for the sake of uncovering the links between gender relations and development needs is called gender analysis (March et al., 1999; Ndugo et al., 2010). In other writings, gender analysis has also been defined as a practical tool for analysing the differences between the roles that men and women play; the different levels of power they hold; their differing needs, constraints and opportunities; and the impact of these differences on their lives (INEE, 2010). In other words, because gender differentials have the potential to cause people to be differentially vulnerable, gender analysis offers insight into how we arrive at this. This is why I used gender analysis in my study.

To effectively meet its objectives, gender analysis uses gender analytic frameworks to collect gender disaggregated data. Out of several analytic frameworks, I intentionally chose the Harvard Analytic Framework, also called the Gender Roles Framework. The HAF was one of the first gender analytic tools published in 1985 by the Harvard Institute of International Development working together with WID and USAID (March et al., 1999). With difference as the basis of analysis, the framework systematically explores the roles and responsibilities of men and women's access to and control over resources using these as the markers for vulnerability or lack thereof. This is done by asking, *who*

does what?, who has what?, who decides what?, who gains? and who loses?[80] (See Table 9).

Table 9: number of visual participatory research methods (FGD 2)

		Case Study Area	
Question	**Participatory Research Technique**	Buhera	Nyanga
Who does what/decides what?	Activity framework	1	1
Who does what (and when)?	Times-roles framework	1	1
Who has what?	Ownership and control framework	1	1

Images 5 and 6 below show men and women carrying out gender analysis exercises[81].

Image 5: Men, Gender Analysis

Image 6: Women, Gender Analysis

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[80] Due to the issue of intersectionality, when we ask these questions, we should also ask which men and which women?

[81] I observed that women seemed much tense in mixed sex FGDs used for PRA activities, whereas they had seemed more relaxed in the single sex FGDs used for Gender Analysis. To demonstrate how relaxed women were in single sex FGDs, Image 6 shows the transcriber for the Gender Analysis exercise lying down as she wrote down the responses of her fellow women. Also see Chapter 8.

Key informant interviews

To add depth to the findings, key informant interviews were also carried out[82]. Effectively, 14 key informants were interviewed. Four representatives were from GOAL Zimbabwe, while three representatives were from the Environmental Management Agency (EMA). I also interviewed one representative from the Organisation of the Coordination of Humanitarian Affairs (OCHA), one representative from the National Early Warning Unit (NEWU), as well as one representative from the Civil Protection Unit (CPU). The four AGRITEX officers that I interviewed also served as my RAs. The limiting factor of my key informant interviews is that all except four of the interviews were held with male figures. For a study wishing to get a balanced view on the gendered dimensions of environmental change, this was a partial representation. However, the people I encountered in the offices I visited were mostly men. In one instance, when I had wanted to interview a lady at the Food & Nutritional Council, her boss who was a man, denied her the authorisation to give me an interview.

Figure 15: Key informant list

Key Informants	Number of people interviewed
GOAL	4
Environmental Management Agency (EMA)	3
Civil Protection Unit (CPU)	1
Organisation of the Coordination of Humanitarian Affairs (OCHA)	1
National Early Warning Unit (NEWU)	1
AGRITEX	4
Total	14

Data Analysis

In my study, I opted for a thematic approach to analysing data. This is a commonly used data analysis method in qualitative research, that is used to identify, analyse and report patterns (Braun & Clarke, 2006). Thematic analysis involves coding and segregating data by codes into data clumps for further analysis and description (p. 147). The process of coding seeks to find recurring themes and patterns through exploring common words,

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[82] I carried out key informant interviews together with Anri Landman Menderson, a colleague of mine carrying out a similar PhD study at the University of Stellenbosch in South Africa.

concepts, imagery as well as non-verbal clues, such as voice tonation and any other such emotive body expressions. (O'Leary, 2010). This is carried out in a bid to find recurring patterns or themes from which meaning can be extricated.

Prior to analysing the data in my study, I transcribed the verbal interviews (one on one and group discussions), capturing only the detail that was relevant to the research questions. Following the guidelines of thematic analysis given by Braun and Clarke (2006) (see Table 10), I then familiarised myself with the data to begin the colour coding and thematic extraction processes. Table 11 illustrates how I colour coded participant responses and further elicited themes. To extract themes, I used inductive thematic analysis, described by Braun and Clarke (2006) as being a bottom up style that is not driven by the researcher's theoretical interest, pre-existing coding frame or analytic preconceptions. In other words, the themes derived through inductive analysis are linked to the data itself.

Table 10: Phases of Thematic Analysis

Familiarising yourself with your data	•Transcribing data (if necessary), reading and re-reading the data, noting down initial ideas.
Generating initial codes	•Coding interesting features of the data in a systematic fashion across the entire data set, collating data relevant to each code.
Searching for themes	•Collating codes into potential themes, gathering all data relevant to each potential theme.
Defining and naming themes	•Ongoing analysis to refine the specifics of each theme, and the overall story the analysis tells; generating clear definitions and names for each theme.

Source: Braun and Clarke (2006)

Table 11: Coding pattern

Research question	Participant response	Key themes identified
What environmental changes have been the most critical in your lives?	Lack of sufficient rains to grow crops. You plant your crops as per usual but due to insufficient rains from the distorted rain patterns, the plant growth gets affected subsequently resulting in reduced yields [06:05] When the crop fails, we go to the irrigation in Nyamaropa to buy grain, but money is usually hard to come by so sometimes we trade livestock for grain [09:20]	1. Little rain 2. Seasonal shifts 3. Low crop productivity 4. Cash crisis 5. Purchasing grain as a coping mechanism 6. Trading livestock as a coping mechanism

Now that the sampling techniques and research methods for my study have been made clear, I move on to reflecting on the field work experiences.

Reflection on the field

The fieldwork for this study had been set to commence on July 1, 2013, but I was met with challenges that I had not foreseen prior to leaving New Zealand for Zimbabwe. Political factions had disputed amongst themselves regarding the election date for the 2013 Presidential elections. The political debates had dragged on for weeks, resulting in an apprehensive atmosphere that was marked by political tension. The atmosphere had been also very speculative, and people were generally being cautious of what to say, the places to visit, and times to move around. The month of July was thus filled with pre-election dread, and as would be expected, instances of political violence were recorded in some areas around the country.

As part of the pre-election chaos, several NGOs including GOAL were told by the government to withdraw from the field. This move by the government was politically strategic, as most international NGOs are thought to be in alliance with opposition parties; hence their presence in the rural areas during elections could potentially influence the electorate against voting for the ruling party. Given the mounting political tensions, I was advised by GOAL's Assistant Country Director to abandon all hopes of getting into the field at this time. The same sentiments were shared by my own parents

who feared for my safety. With the help of the Assistant Country Director for GOAL, I then came up with a contingency fieldwork plan. As the political tensions were brewing, I would select and train government employed agricultural extension workers serving within my case study areas, which I would use as research assistants as soon as the situation allowed. Given that the rural areas are usually the most politically heated during elections, the government employed extension workers would guarantee my safety while functioning as my research assistants. For they live in the communities, are well known, and would not be treated suspiciously by participants during such times of political unrest. As an added bonus for me, the extension workers are trained by the government to do data collection exercises and are usually the ones that carry out some of the government surveys at grassroots level.

Given their strong affiliation with the government however, the disadvantage of being associated with them could potentially present a conflict of interest for my research. This is in as far as they are viewed by the communities as government workers. Hence, the possible danger on my part would be that of guilt by association so to speak. In relation to the possibility of being reimaged by participants in the field, a study by Kondo (1986) an American of Asian descent highlighted similar challenges,

> *During the fieldwork experience itself, my informants often tried to recreate me as Japanese. I collaborated in this attempted recreation with various degrees of enthusiasm and resistance. The play of identities was constant in the field, changing with time and with context* (p. 82)

Although hers is a different situation to my own, Kondo shows that a researcher has the power to accept or resist certain identities in the field. And so even though extension workers are government workers; I was able to maintain my identity through the information sheet which plainly stated my position as a PhD student doing independent research. This information was clearly articulated to the participants before undertaking any data gathering processes. As such, I strongly believe that I was able to firmly stress my mission and purpose as an independent researcher, as well as my identity as an 'insider' based on tribal affiliation. With this said, elections ended up taking place on July 31, 2013. But pre-election dread was replaced by post-election fear, which in part was

motivated by unexpected election results. Even so, the NGOs resumed field operations at the end of August, and I ended up commencing fieldwork in Buhera in the two months of September and October, 2013, followed by Nyanga in the two months of November and December, 2013.

While the elections were over, I still faced several dilemmas in the field, for the post-election fear still hung over the rural areas like an ominous cloud. Nyanga seemed to be more politically charged than Buhera. In Nyanga, my RAs had to constantly clarify my identity to every stranger that looked at me suspiciously, more so, because to them I was an 'outsider' and therefore 'suspect' on those grounds. It had in fact come to my ears that after one of my visits to the Rural District Office, some men there had asked about my business in the rural communities in a rather sinister manner. In Buhera on the other hand, my trips to the Rural District Office were often very warm and pleasant, more so because of the new Deputy DA who was a woman not very much older than me.

A noteworthy point that I believe should also be noted as relating to the District Offices is that of resource shortages. I cite in this case, the office of the DA, and also EMA (a government parastatal). I had enthusiastically approached an EMA office in Nyanga for research material in the form of soil characteristics, vegetation types and such correlated data pertaining to my study area. While the officer I had spoken to had initially been rude, by telling me that the odds that anyone was going to read my thesis were not high which is why I did not need any real data, the reality is that his office did not have the data that I needed. This was nothing peculiar to his office. In most cases the old and tattered maps that hang in District offices are old Rhodesian maps which in Zimbabwe today are inconsequential as a lot of physiographic changes have taken place since colonial times.

The impoverishment of data and cartographic material in the District offices also matches the imagery of poverty in the field. Hence, it was not at all uncommon for some participants to take the interview as a platform for forwarding their petitions for aid. Batisai (2013) is a Zimbabwean researcher who faced comparable experiences in her fieldwork after the 2008 Presidential election. In narrating her encounters she said,

My presence in a space where pen and paper had become synonymous to registering for aid posed a huge ethical conundrum. A significant number of people who had a glimpse of the research process became very inquisitive and asked questions such as "what is this one writing? Is she writing down our names? Whatever it is, could I please join in?" (p. 76)

In my experiences in the field, I made efforts to listen, but avoided unnecessary deception, by not promising that I could assist when I could not. In such moments, I clearly restated my research objectives as an independent researcher. I also did restate that it was my hope that once my study was complete, it could be used for policy purposes. That is, through helping to target the needs of the community, and crucially, the most vulnerable men and women in the communities. Also, because of the contagion of post-election fear that had also come over me like a disease, I had generally become instinctively conscious of the content of my speech as I did not want anything I said to be misconstrued for political propaganda. In the rare moments were some participants got carried away with political rhetoric, I tried to play the naïve researcher, escaping to the safety of 'uh huh' moments as I dutifully recorded the interviews and scribed notes. Batisai (2013) the Zimbabwean researcher earlier cited had similarly experienced post-election fear during her fieldwork. Thus she acknowledged that during such fragile times, one is constantly faced with the fear of persecution that emerges from being associated with outsiders whose political standing is suspect.

Limitations of the study

While my study was able to successfully carry out its research questions, there were some limitations which could not be avoided. The main limitation for my study, which is common also in many empirical studies, was that of scope. The sample was restricted to two case study areas which are only representative of two out of Zimbabwe's 55 Districts. Although the two Districts are dissimilar in many respects, they are situated in the same Province, and data for the study was collected in sites that have similar agro ecological qualities. That is, AEZ III-V. The generalizability of the study to rural areas in AEZ I-II may thus become difficult.

Conclusion

The purpose of this chapter was to outline the concepts and theories that underline my research methods. As such, this chapter presented the philosophical underpinnings of my study and described the methods which were used to collect data. The sampling techniques used to select participants and the participant demographics were also given. Another crucial element of this chapter is the reflexive awareness of my positionality. In answering the question that is associated with the researcher's representation and identity: "*where are you really from*?" (Henry, 2003), I demonstrated my own positional spaces and how they have influenced my understanding of my identity as an insider/outsider in the field. I also used the same positional spaces to highlight the complexities of my field experiences. Part of being a good qualitative research entails a constant awareness of one's positional spaces in relation to the researched, including the ability to continuously assess how this identity influences the research (Stewart-Withers et al., 2014).

Having outlined the methodological approach undertaken in this study, I move to the next chapter to describe Zimbabwe's context of crisis.

Chapter 6: The Crisis State of Zimbabwe

> I wanted to develop a style of writing which would be consonant with lived experience,
> in all its variety and ambiguity[83]

Introduction

In this chapter, I wish simply to portray Zimbabwe through language that will give a basic yet elaborate depiction of the formation and culmination of crises. This chapter show the rural populace in Zimbabwe subsists within a context of multiple constraints. These overlap and contribute towards a multifaceted vulnerability that can be difficult to dissect. To aid the discussion, I give a stylised chronology of critical facts and events that have ensued since independence in 1980. This critical and complex milieu justifies the designation of the Zimbabwean context as a crises context.

The chapter is divided into two parts comprising a sequence of chronological events. The first part introduces the crisis formulation stages of the Zimbabwean experiment. The focus here is on independence in 1980, the Structural Adjustment period in 1992 and the growing civic unrest that was attached to the land question throughout the 1980s and 1990s. In the second part, factors leading to the culmination of Zimbabwe's interlocked crisis from 1992 to the present day will be presented. Although with political derivations, the interlocked crisis is presented in this chapter as being largely socioeconomic. To understand the crises will be to understand the very nature of rural people's overall vulnerability. Before starting to explore the chronological events however, I first give a brief background to Zimbabwe in terms of its population structure.

Zimbabwe: Brief Background

According to the 2012 population census the country has a population of about 13 million people. Men make up 48% of this population, and women, 52% (ZIMSTAT (2012). The dominant ethnic groups found in Zimbabwe include the Shona people who make up 80% of the population and the Ndebele people, who make up 12%. The remaining 8% is made up of racial minorities which include white Zimbabweans. Buhera and Nyanga, the case study areas for this study are occupied mainly by the Shona people.

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[83] Jackson (2000).

Figure 16: Map of Zimbabwe
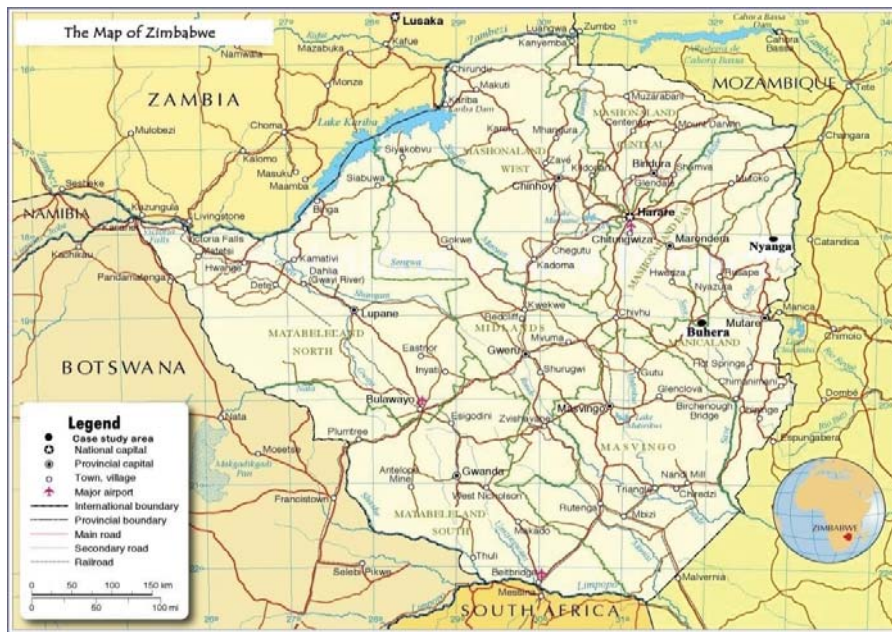
Source: NationsOnline (n.d)

Family is central to the Zimbabwean culture. The Shona concept for family is embedded in the word *mhuri* (Ndlovu, 2011). *Mhuri* is the primary site for gendered identities, hence men and women are crucial pillars of this institute (Owomoyela, 2002). Mvududu and McFadden (2001) highlight that the heterosexual, male constructed and male dominated *mhuri* has consolidated itself as part of the cycle of its evolution, and so the *musha* [home] that is headed by the *Sa musha* [man of the house] is considered the ideal family prototype. Muchemwa and Muponde (2007) reason that, this why the only feminism that has been tolerated in Zimbabwe, is that which does not threaten the official discourse of fatherhood (p. xxii). My focus on environmental change and gender in Zimbabwean rural areas can be understood further when the fact that at least 68.3% of Zimbabwe's population is rural (ZIMSTAT, 2013a) and women make up about 70% of this population (MoWAGCD, 2013). Nonetheless, it is generally argued that the size of the rural population has resulted in population pressure on resources and has triggered an additional crisis that is ecological in nature (Lopes, 1996). Feresu (2010) claims however that, the disribution rather than the size of the rural population is what has acted as a major driver for environmental changes of biophysical form. She maintains that about 60% of the rural population remains concentrated on marginal lands even after the 2000 land reform which in part was sanctioned to rewrite the colonial legacy of irregular land tenure patterns.

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Part One: Zimbabwe's Uhuru[84]

> Zimbabwe is a dialectician's dream[85]

> One cannot simply comprehend contemporary Zimbabwe without reference to the past[86]

After 90 decades of colonial rule Zimbabwe was born out of the Rhodesian republic in 1980. Following its birth, the republic status was never forfeited. This was a precedent that had been set by Rhodesia's 8th Prime Minister Ian Smith, five years after the passing of the Unilateral Declaration of Independence (UDI) from Britain in 1965. Smith had declared Rhodesia a republic so as to distance the colony further from the monarch, and it was for that reason and that reason alone. For in as far as the grounding principles of a republican society are concerned, Ian Smith had defied them all when he declared a minority rule. In his words,

> *I don't believe in black majority rule ever in Rhodesia, not in a thousand years*[87]

In response to Ian Smith's Rhodesian republic and its minority rule, Mugabe in his Zimbabwean republic nonetheless spoke a conciliatory message, "*let us forgive and forget*…" (see Mandaza (1986, p. 42). But he vehemently declared a majority rule, that is, a Zimbabwe for black Zimbabweans, and in his own words,

> *Zimbabwe shall never be a colony again*[88]

A republican shift was not uncommon for newly independent States who often saw this as a way of asserting their self-rule. However many of the infant States (former colonies) have shown a totalitarian predilection to governance after independence. Therefore it has been argued that the States find themselves often caught between the ideology-structure nexus. This is a dichotomous position in which on the one hand, the State, often embodied in a single person, the President (Ndlovu-Gatsheni, 2013), has to assert

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[84] Uhuru is a Swahili word meaning freedom.
[85] Gordon (1984).
[86] Schatzberg (1984).
[87] Wikiquote (n.d).
[88] Robert Mugabe cited in Jakaza and Visser (2014).

its ideological underpinnings on the one hand, and on another, structurally walk the talk, through the effective implementation of its policies (Mkandawire, 2001). In African countries the nexus between ideology and structure is usually followed by a structural disarticulation where the State fails to altogether walk the talk, often resulting in situations of crisis.

The Home-Coming

At independence, the new government had inherited a paradoxical state of affairs from the colonial government. This state is often referenced as the 'dual enclave'. The expression refers to the coexistence of a 'sophisticated' urban economy and the 'rustic' rural economy including, the modern versus traditional farming institutions. Due to marginality, the underdog in each example serves as an antithesis of the other. In essence, the sophisticated economy operates as a narrow enclave in a largely traditional society (Mamdani, 1996). In contemporary dialectic, in Zimbabwe the dual enclave has also been used to depict the small formal sector dominated by a majority of males and a large informal sector dominated by a majority of women (see Harold-Barry, 2004; Kanyenze et al., 2011). It was the incumbent government's role to change the dual economy it had inherited, push-starting an integrated economy in order to navigate the nation towards the most viable pathway to growth.

To transition the State, the incumbent government had to choose between the colonial capitalist ideology and an Africanized socialist ideology. The case with many newly independent African States had been to adopt a variation of socialist ideologies in conjunction with one-party State systems (Gregory, 1986). Since Africa had not yet fashioned its own indigenous philosophy, it was easier for its newly independent States to borrow from the socialist ideology, for it was closely connected to their traditional communalism. Having been victims of a colonial era that was grounded on capitalist principles, African leaders also saw socialism as a non-exploitative ideology (Wamala, 2012). Problematically, as argued by Mandaza (1986), socialism was a deficient ideological reform for it had not been properly adapted to suit the post-colonial

reality[89]. Africa's post-independence situation thus serves as juxtaposition to Geschiere's notion of the return of the local, as the period after colonization was like a 'homecoming' only to find that the local had been replaced by the global (see Geschiere, 2009). The new home was a place where there was no real sense of belonging, and within which certain preconditions and concomitants had to be followed to become fully acceptable in the global village. Such was the position that the GOZ found itself post-independence.

Zimbabwe's Post-Independence Development Plan

To undertake the daunting task of redressing the gross socio-economic imbalances, the GOZ put itself in a tight rope position. On one hand it embraced a reformist capitalist ideology that sought to please the West. This was mainly through protecting the interests of the white minority after independence[90,91].On another hand it embraced a radical socialist ideology that sought to appease the native people. This was mainly through adopting welfarist approaches, and propagating the rhetoric of land redistribution. Mandaza (1986) who is not favourable to this type of compromise between imperialist forces (reformist approach) and democratic forces (radical approach) calls this outcome as a schizophrenic condition. The outcome was embodied in the politically ambiguous Transitional National Development Plan of 1982/3 – 1984/5. Gordon (1984) calls this the 'accommodation' period, the success of which was short-lived (also see Chimombe, 1986).

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[89] In the wake of the socialist movements, Kenya's Jomo Kenyatta and Botswana's Seretse Khama are among the few African leaders who stuck to capitalist ideology post settler colonization (though Botswana was never colonized so to speak, and following its independence, Kenya followed through with a land reform which strictly adhered to the 'willing-buyer willing seller' principles).

[90] At the dawn of independence in 1979, a team of native negotiators engaged in land talks with the British in what is called the Lancaster House Agreement. Following this caucus, Britain had agreed to meet part of the costs of land recovery from white minority farmers but only on a 'willing buyer' 'willing seller' basis. The outcome of the negotiations between the two parties had been consolidated in a Bill of Rights under the new constitution. Section 16 of the Bill of Rights bonded the native government into a 10 year agreement to stop it from acquiring and redistributing private property. However, to facilitate the land redistribution process, a Land Acquisition Act was drawn in 1985. Being predicated on the constitution, the Act was limiting, as the government could only purchase unutilised or land lying idle. After the 10 year binding period of the Bill of Rights, the government then went ahead to amend section 16 of the Bill, to enable it to acquire land compulsorily, and without any limitations. This was achieved through the amended Land Acquisition Act of 1992.

[91] According to Coldham (1993) at the time that Zimbabwe went through the Lancaster House negotiations, it had not much choice but to comply with the terms. Meredith (2002) however reveals that Zimbabwe's compliance with the Bill of Rights was a premeditated move, as the new government knew that there was a chance in the future to amend its position.

Disillusioned Rural People a Decade after Independence

Despite the native government's rhetoric of redressing colonially inherited imbalances, the onset of independence from British colonial rule remained blemished by the control of 70% of the best farming land by the white minority who made up 1% of the population (Zamponi, 2005). The white minority had taken the bulk of the prime land and relegated the native majority onto marginal and agro-ecologically poor land under the provisions of the Land Apportionment Act of 1930 (Kanyenze et al., 2011). The irony of this is that the rural areas with an estimated carrying capacity of 275,000 families had carried a number of about 700,000 families by independence in 1980 (Friis-Hansen, 1995). In contrast, at least 60% of the white farming areas lay idle or underutilized with each farm ranging between 500 and 2000 hectares (Harold-Barry, 2004). As part of its commitment to redressing the imbalances, the incumbent government pledged to resettle at least 162,000 rural families within the first five years of independence (Mlambo, 2014). In line with the Lancaster House Agreement, the British government under Thatcher would meet part of the cost for the market-based instrument of land reform allowing for land to be bought back from the white minority using the fair market value (FMV) principle of 'willing seller willing buyer' (Chung, 2006). But by 1984, only 34,000 families had been resettled (Jacobs, 1991), by 1989, 52,000 families had been resettled, and by 1990, 71,000 families had been resettled (Mlambo, 2014). There are claims that during this period, the government had misappropriated some of the land reclamation funds by securing land for the ruling elite as opposed to the landless rural people (Goebel, 2005). This is argued to be part of the reason why the British government under Blair later went on to cease funding for the resettlement programme (Chung, 2006).

Coupled with the slow-paced land redistributions, the pitiful living conditions in the rural areas led to rural discontent in the 1980s (Mlambo, 2014). Mlambo reports that during this period there were various attempted farm invasions on white minority land. The response from the government was to forcibly evict the illegal settlers. The government criticized the occupiers as unruly elements bent on disrupting the country's economy (p. 225). Further, the government told the 'unruly elements' that it preferred to resettle people who waited patiently rather than those who preferred to be squatters (Chiviya,

1982, p. 165). It is no wonder then that the white minority praised the native government in the first decade of independence (Mlambo, 2014, p. 224). Against the pitiful living conditions of rural people, a white citizen was cited in Mandaza (1986) as saying,

> *We have a house, a swimming pool, a tennis court, three servants … We're not living in Rhodesia. We're living in Zimbabwe* (p. 58)

Taking into consideration their excessive affluence in comparison to the native poor, Mumbengegwi (1986) comments that the native government had, on top of a dual enclave society, also inherited a spoilt white bourgeoisie.[92] However, to address the colonially inherited imbalances, the Growth with Equity Strategy of 1981 paved the way for the improvement of several aspects of rural infrastructure (Kadhani, 1986). The government aimed for rural electrification, the construction of roads, schools, clinics, boreholes, sanitation, and the development of rural growth points as business centres (Mangiza & Helmsing, 1991). Paying particular attention to the latter, these settlements had been earmarked for development through the Integrated Rural Development Plan of 1978,[93] and would serve as the sphere of influence for rural areas (Wekwete, 1988). According to Manyanhaire et al. (2011), the set targets were too ambitious, because in the end, not all districts managed to get business centres. For those that did, the growth points soon became characterized by stagnation and decay. Chirisa et al. (2013) essentially classify most growth points as downward transition regions.

The government also initiated health and education reforms in both rural and urban areas, the benefits of which were mostly felt in the first decade of independence (Muzondidya, 2008). For example, at independence, rural health care was so bad that for every 1000 babies born in Mufakose (a high density suburb in Harare) 21 would die before they reached age 1, whereas, for every 1000 babies born in Binga (a District in rural Zimbabwe) 300 would die before they reached age 1 (Agere, 1986). Amidst the progress, the amended public health service sector could only cater to a small

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[92] The expression "dual enclave" refers to the coexistence of a 'sophisticated' urban economy and 'rustic' rural economy, including modern versus traditional farming institutions. In essence, the sophisticated economy operates as a narrow enclave in a largely traditional society (Mamdani, 1996).
[93] This is a development plan that had been initiated by the colonial government, but was later inherited by the native government.

population, mostly in urban areas (Chimhowu, 2009), with only about 10% of the rural population covered by health care (Kanyenze et al., 2011). Most of the rural areas continued to receive health care and treatment from churches and missionaries (Chimhowu, 2009).[94] While positive pricing systems, credit and input supplies, and subsidies were also made available to the rural people, and further outcomes of development were promised (Raftopoulos & Mlambo, 2008), not much development progress ended up being achieved in the rural areas (Moyo, 2007). Muzondidya (2008) thus concludes that government policy did not efficiently renew rural economies or revive rural conditions of poverty.

ESAP[95]: Zimbabwe's Race to the Bottom

> Much of the policies that have turned out to be bad were at
> their insistence[96]

In general, the first decade after independence was marked by notable socioeconomic improvements. State welfarism had gained Zimbabwe real economic growth averaging 4.6% during the 1986-1990 period (Mazingi & Kamidza, 2011). Yet still, the growth had been highly disproportionate as the doors to economic growth had been open to only a few (Lopes, 1996) - the elites, who Muzondidya (2008) states comprised just 3% of the population made up of the white minority and a small black bourgeoisie.[97] On top of being highly disproportionate, the growth was been ephemeral in nature. After the boom period in the first decade after independence, Zimbabwe had succumbed to a bag of mixed fortune, ranging from the global economic recession in the 1980s, to weakening terms of trade, and high interest rates and oil prices (Mlambo, 2014; Muzondidya, 2008). The impacts of the State's welfarist policies were also starting to be felt. As Gordon (1984) points out, the policies gave rise to heavy investment in welfare expenditure, loss of control over fiscal spending, and a repeatedly overburdened budget. For instance, the education allocation budget between 1982 and 1983 was 22%

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[94] The situation did however improve due to the 'Health for all by 2000' Development Plan, but soon deteriorated again due to the ongoing economic crisis.

[95] ESAP is the Economic Structural Adjustment Program which led to the deregulation of the market and reduction in welfare expenditure to facilitate economic growth but with negative impacts on the poor.

[96] Mkandawire and Soludo (2003, p. 2).

[97] As compared to 4,500 white commercial farmers, as few as 300 natives owned commercial farms at independence (Moyo, 1986).

of the national budget (Zvobvo, 1986). As a result, the Bretton Woods institutions with their preconditions and concomitants came to the rescue with a Structural Adjustment Programme (SAP), widely referred to in Zimbabwe as ESAP. SAPs are economic reform packages that comprise loans provided by the International Monetary Fund (IMF) and the World Bank (WB) to Third World countries dealing with critical economic hardship (see Wamala, 2012).

Worldwide, the early 90s had ushered in a new wave of neo-liberal Structural Adjustment Programmes which were engineered by the Bretton Woods institutions, and in particular the World Bank and IMF. These International Financial Institutions (IFIs) were more than happy to assist because, at the time, the West was preaching a liberal, modernisation doctrine to counter Soviet communism. Prior to its collapse in 1991, the Soviet Union had played an important role in aiding several African States (Angola, Mozambique, Tanzania, Somalia, Guinea-Bissau, Uganda, Kenya) with financial and military aid during their liberation struggles. As a result, there was a perceived danger that Africa would fall into the hands of the Soviets. The possibility was real because already several African States were adopting socialist ideologies which were an infant version of the communist manifesto[98]. Against Western fears, Ndabaninigi Sithole, a revolutionary figure in Zimbabwe had reasoned that,

> *The Russianisation of Africa is a possibility immediate or remote, but not a fact, whereas the Westernisation of Africa is an accomplished fact* (Mandaza, 1986, p. 31)

In dire need of economic rescue, the government took to the Western neoliberal SAP. This was to lead to the accumulation of foreign debt and renewed lease of dependency on the West.[99] It is noteworthy that there were no civic society consultations made by the GOZ prior to the implementation of the SAP - a ploy often utilised by the IMF.

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[98] Regarding the positon of the West towards the communist threat McClelland stated that "unless we learn our lesson and find ways of stimulating that drive for achievement under freedom in poor countries, the Communists will go on providing it all around the world…" McClelland 1964 cited in Bernstein (1971).
[99] The Zimbabwean government had inherited little external debt from the colonial government but its debt started accumulating through money borrowed for welfare programs (see Goebel (2005).

For Stiglitz (2000)[100] made it clear that,

> *The IMF likes to go about its business without outsiders asking too many questions. In theory, the fund supports democratic institutions in the nations it assists. In practice, it undermines the democratic process by imposing policies. Officially, of course, the IMF doesn't "impose" anything. It "negotiates" the conditions for receiving aid. But all the power in the negotiations is on one side - the IMF's- and the fund rarely allows sufficient time for broad consensus-building or even widespread consultations with either parliaments or civil society* (p. 4)

Osabu-Kle (2000) comprehensively criticised the SAPs on the grounds that they are one-sided. However somewhat confusingly, the Consultancy Report on the Zimbabwean SAP by Maya (1988) shows the that GOZ denied implementing a Bretton Woods modelled SAP, let alone doing so at the directive of the IMF. The GOZ claimed that it would implement its own stylised model of the SAP because the Bretton Woods SAPs were tailored to suit Western as opposed to native needs. In addition the Western model opposed the welfarist approached the government had committed to during the first decade of independence. Goebel (2005) supports these claims, noting that the GOZ had indeed attempted to implement a 'made in Zimbabwe' SAP to protect the gains it had achieved in human development in the first decade.

However, the SAP saw inter alia, a 40% devaluation of the Zimbabwe dollar; price controls, income controls, and labour relations controls; the removal of consumer subsidies, producer subsidies, educational subsidies (tuition support), healthcare subsidies, and transport subsidies; and investment controls, import restrictions, and a reduction in welfare spending (Kanyenze et al., 2011). Then Education Minister Fay Chung also pointed out that:

> *Tens of thousands of black workers lost their jobs … fees were introduced for hospital and clinic services: as a result the poorer half of the population could no longer enjoy even the most rudimentary of medical services … In the education sector, I managed as minister to stop the introduction of primary school fees in*

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[100] Joseph E. Stiglitz is a former Chief Economist at the World Bank, and currently a University Professor at Columbia University. He is also a recipient of the 2001 Nobel Memorial Prize in economics.

rural areas where 70 per cent of the population lived, but they were introduced in the urban areas. (Chung, 2006, p. 266)

Interestingly, the GOZ had been happy to claim the SAP project as its own in the early phases, but upon its failure, blame was quickly shifted to the Bretton Woods institutions. That being so, outcomes of the SAP contradicted the initial government claims that the Zimbabwean SAP was tailored to suit native needs (see Maya, 1988). Quite the contrary: where the rich would readily respond to structural changes, the poor were constrained by a lack of assets and stable incomes and the loss of State welfare (Lopes, 1996). In addition to cutbacks in social services and a concomitant decline in general welfare, there was spiralling inflation (ibid). As such, ESAP was a washout that undermined the government's efforts of the first decade after independence. It heightened poverty and created further inequalities (Jauch, 2007). Similar trends of dissatisfaction with the SAP are noted in other African countries. The following quote from Lynas (2000), was taken from his article entitled, 'Letter from Zambia',

> *Phiri, like many of his neighbours, has heard of structural adjustment. It was because of the SAP that he lost his job as a security guard. It was because of the SAP that he lost a child- a 3-year- old boy, who died of pneumonia in 1996. "I know it is meant to put the economy on the right track, but to me it seems to make us suffer," he says. "We can't eat policies." He looks at the ground. "I don't have any hope. I don't have any money, so I can't think of any future. My future is doomed."*

> *Half a world away in Washington, the architects of this human disaster dine in comfort and seclusion, spending more on one meal than Masauso Phiri's wife makes in a year of selling buns in their shantytown. Although most World Bank staff work at its Washington headquarters, those unlucky enough to be posted in the Third World receive ample compensation for their misfortune. This includes subsidized housing (complete with free furnishings), an extended "assignment grant" of $25,000 and a "mobility premium" to defray the cost of child education. Salaries are tax-free and averaged $86,000 in 1995, according to a General Accounting Office report to Congress. No "structural adjustment," then, for this*

privileged coterie of bankers and policy analysts. Meanwhile, in Africa a hidden genocide lays waste the continent.

The beginning of Zimbabwe's crisis was thus amplified by the experimentation with neoliberal policies in the form of ESAP (Rukuni, 2006). Colgan (2002) maintains that the failure of the neoliberal policies was dramatic to the point that some critics of the World Bank and IMF argue that the policies were never intended to promote development, and that their intention was to instead keep African countries economically weak and dependent. Although Mkandawire and Soludo (2003) blame Africans for timidly obliging, they too agree that many of the bad policies that have resulted on the African soil have been insisted upon by the West and used as weapons for controlling former colonies. Ultimately, Stiglitz (2000) argues,

They'll say the IMF is arrogant. They'll say the IMF doesn't really listen to the developing countries it is supposed to help. They'll say the IMF is secretive and insulated from democratic accountability. They'll say the IMF's economic "remedies" often make things worse-turning slowdowns into recessions and recessions into depressions. And they'll have a point (p. 1)

When conjured upon from Moore's ideological dictum 'no bourgeoisie, no democracy'[101] however, one can almost see the neo-liberal justification of a bourgeoisie managing the market as the only means to economic growth. This in a sense also implying, that 'no bourgeoisie no economic growth'. Against these views, post development thinking[102] sees market efficiency as being grounded on the altruistic allocation of utilitarian freedoms and capabilities (Sen, 1999), meaning development should be liberating and not incarcerating. In following a somewhat similar stance which though failing at present, Zimbabwe has since gone from nominal socialism at independence to neo liberal capitalism in the five years of experimenting with ESAP, and onto an authoritarian nationalist ideology that promulgates indigenisation and native empowerment (Zamponi, 2005). Its fast track land reform embodies the first

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[101] Moore (1993).
[102] Post development thinkers critique development is based on the Western model of modernity, and hence argue against the neoliberal prescriptions of laissez- faire economics.

Zimbabwean experimentation of nationalist movement post-independence. The ensuing sections will flesh out this topical issue.

The land moulded development trajectory

<div align="right">History needs to be taken seriously in the unfolding of politics of land
in Zimbabwe[103]</div>

The socio-political impacts of ESAP were compounded by land issues. The liberal land and agricultural policy reforms of the 1990s had failed to address the land question in Zimbabwe (Rukuni, 2006). Forced and unsystematic land occupations resumed in 1998 then instrumented the Third Chimurenga war (land reform) that climaxed in 2000 (ibid). For a second time since the 1980s, restless farmers and agricultural labourers attempted farm invasions in June 1998. The first recorded farm invasions during this period were by people from the Svosve communal area (Mlambo, 2014). However unlike the initial farm invasions in the 1980s, the GOZ backed the latest illegal settlements. The land reform thus marked a turning point in the history of Zimbabwe's development. Mamdani (2008) argues this to be a proud landmark some two decades post settler-colonialism, and a breakthrough through which many Zimbabweans would see as the official end of settler-colonialism. He juxtaposes the Zimbabwean experience with the Ugandan expulsion of Asians under the ruler-ship of Idi Amini in 1972. This too he said could be seen as the true Ugandan independence and not the formal handover that had been carried out a decade earlier. Although Mamdani claimed that the revolutionary land reform signified a new freedom for Zimbabweans, he did not address any discontent arising from it. Nonetheless, from a development point of view, it was thought that the land reform would usher in the dawn of a new agrarian era no longer defined by racial politics (Moyo & Yeros, 2005), and that the death of the dual agrarian structure would be marked by the birth of this new agrarian structure (Scoones, 2009). Moyo and Chambati (2013) call this a de-racialized tri-modal agrarian structure. In it, the battle of economic empowerment is now mostly among small, medium and large scale farms.

The value of land to Zimbabweans

Land is a central concept in the Zimbabwean context (Huddle, 2007; Rutherford, 2005). Land is seen as the sustenance of life, it is considered to be the quintessence of being

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[103] Alexander (2007).

Zimbabwean. While Mbeki (2009) chooses to cynically dismiss Zimbabwe as a land of enticing myths and legends, the intrinsic value of land to many Africans is in general incontestable. Wanyeki (2003) argues similar views regarding the significance of land to the Cameroonian. Land, she suggests is a common heritage, a cultural and physical collective space inherited from ancestors. It is a collective resource that is transmitted from generation to generation. Above all, land has a cosmological function, in that it is a visible link to the invisible. Similarly, Alexander (2007) carefully sums up the queried significance of land to the Zimbabwean,

> Land is all about identity as well as production and class formation; it is about aesthetic values and spiritual meaning, as well as being central to the institutions of state; it fires political struggles and violence… and it is the basis for building and breaking a host of social relationships. In all of these guises, the meanings and value of land are neither fixed nor uncontested. Land cannot be reduced to a static role in a single narrative (p. 183)

Based on these expositions, the irrevocability of issues of access and control over land in Zimbabwean politics is clarified. Based on the importance of land to Zimbabweans, it should come as no surprise that land can heighten intense emotions in people and in turn engender socioeconomic and political instability.

In the name of our fore fathers

Given native valuations of land, the grossly debated land reform exercise is to some extent justifiable. Taking into account the colonial dislocations of native people from their ancestral land, I conceive the land reform as being morally correct. The wrong was perhaps in the method of execution and not the principle behind the execution. The execution unethically dispossessed white farmers of their homes and left many black workers landless and jobless. Again, the execution omitted many people whom it was aimed at targeting, for instance, the rural poor and women (Kanyenze et al., 2011). As for the principle behind the execution Osabu-Kle (2000) claims that it was inevitable. Concerning the cost of the execution he remarks that it should have been borne by Britain because according to him,

Justice demands that those who created the mess should clear the mess themselves or at least bear the mess of clearing it (p. 3)

So although the initial contract in the form of a Bill of Rights had mandated that land be taken back by the native government on a 'willing-buyer, willing-seller' basis, Osabu-Kle (2001) questions who should bear the cost of compensation,

There is talk about compensation. The question is who should pay the compensation—the robber or the robbed? Certainly, natural justice demands that the robber, when caught should pay the compensation (p. 47)

Though seemingly appropriate, the above position is also inappropriate when considered in the light of the fact that successive British governments were not the ones that had overseen the mass raids of land on the African continent, neither were the beleaguered white farm occupants the ones that had initiated the raids. In championing these claims, a British Secretary of State for International Development under the Blair government remarked that:

I should make it clear that we do not accept that Britain has a special responsibility to meet the costs of land purchase in Zimbabwe. We are now a new government from diverse backgrounds without links to former colonial interests. My own origins are Irish and as you know we were colonized not colonizers[104]

However, Osabu-Kle's remarks support Mugabe's initial position towards compensation. As Mugabe clearly stated,

But you are Africans, how dare you accept that the position of land shall be governed by the Bill of Rights? We can't get anywhere with the Bill of Rights. Don't you remember your history? The land was never bought from us. Support our position on this one[105]

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[104] Ms Claire Short. British Secretary of State for International Development cited in the Report of the Presidential Land Review Committee on the Implementation of the Fast Track Land Reform Program 2000-2002. Harare, Government of Zimbabwe, 2003.
[105] Mugabe cited in Meredith (2002).

The value of land to the Zimbabwean has already been described in the previous section. However in remembering our history[106] as Zimbabweans, the people believed in a supernatural God who dwells in the most high, known in the vernacular language as *Nyadenga* or *Musikavanhu*, they also believed that their dead ancestors were the custodians of the land. The dead ancestors were considered to be demigods acting as mediums between *Nyadenga* and the living. As a result, feasts and rituals would be carried out to honour the custodians of the earth. As part of the rituals, people would appease the ancestors for rain thus preventing prolonged dry spells. The process often entailed the brewing of beer which was poured over the land. The act of pouring beer over the land was a ritualistic act symbolizing the quenching of the thirst of the demigods. The very act was thought to incite *Nyadenga* to reciprocate through pouring water over the land to quench the thirst of the people (see Moore, 2005). The mysticism of rainmaking and ancestral worship is however less understood by the present day generation. It is considered by the Christianized Zimbabwean to be an apotheosis of the dead and therefore a form of pagan worship.

Notwithstanding the shift towards modernity, the symbolic nature of land has not been lost. Contemporary generations still perceive land to be an ancestral heritage, and a legacy that must be protected. Popular catchphrases that can be heard being chanted on the streets of Zimbabwe include sayings like:

> *Ndiri mwana wevhu - I am a child of the soil*
> *Ivhu ku vanhu - The soil to the people*
> *Ivhu inhaka yedu - Our land is our prosperity*

All in all, the Zimbabwean experiment, as some would call it, was birthed out of the need for the right to land - the right to freedom - the right to freedom to acquire land- the right to freedom to acquire any land of choice- which indisputably translates into the right to self-rule. Given such a perspective on freedom, it must mean therefore that

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[106] "In African cosmology such an important natural endowment as land does not have a marketable value. Prior to the advent of colonial rule in…Zimbabwe …land belonged to the living and to the unborn as well as to the dead. No member of a group could sell or transfer land to an outsider as land was considered a natural endowment in the same category as rain, sunlight and the air we breathe. In this economy there could be no commodity more valuable than land and no circumstances in which it could be profitable to dispose of it. In short, land had no exchange value." (Moyana, 1984, p. 13).

uhuru in Zimbabwe has not yet been obtained in its broadest sense. Rural people remain on customary land tenure even after independence. What uhuru did they gain, if not to have formal title to land? In turn, even after independence, rural women continue to access land customarily through their male kin. What uhuru did they gain, if not to have primary rights to land? For the liberation war in Zimbabwe had been about land and liberty. That is, the right to participate fully in the economy as landowners (UNECA, 2002, p. 113).

Part Two: A Snapshot of Zimbabwe's Interlocked Crisis

> In 1980 Zimbabwe was a promising, almost prosperous African country. But in its 29 years of independence everything that could possibly go wrong has done so …even the weather[107]

With the historical context now laid bare, I proceed to explore the contemporary context and their collaborative effects towards the culmination of crisis. This is vital information that should be taken as the mid-point for understanding the vulnerabilities of rural men and women.

Probing into Crises: 1992-1998

As a point of departure, 1992 was a critical year in the history of Zimbabwe, where alongside the socioeconomic effects of the ESAP there was a serious drought. The impacts of the ESAP were felt deeply by the rural poor because it intensified existing poverty issues (Marquette, 1997): user fees for education and health among other welfare subsidies had been removed; many jobs had been lost due to workforce restructuring; and workers that survived retrenchment suffered a real minimum wage decline. The effects of ESAP thus increased the residual effects of the historical colonial imbalances while at the same time heightening another problem of that day and age - the major drought of 1992.[108] Overall, the early 1990s were dramatic years which I believe constitute a crucial chapter in the crafting and coalescence of crises in Zimbabwe. With two droughts (one astronomical), the early 1990s marked the spiralling of natural risk and risk that is socioeconomic and political in nature.

Having flirted with the welfarist policies of nominal socialism and the Structural Adjustment policies of neoliberal capitalism and failed, the government moved on to an authoritarian nationalist ideology leading to more spiralling of risk. In the early years of this ideological shift, the ex-liberation war heroes' coercive requests for war gratuities in 1997 were answered with financial disbursements amounting to ZWD$50,000 per genuine war veteran, and an added ZWD$5,000 lifetime gratuity paid monthly. The total cost of this would amount to about ZWD$4 billion of the national funds (Chitiyo, 2000).

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[107] Mbeki (2009).
[108] 1992 was a critical year in the history of Zimbabwe, where alongside the socioeconomic effects of the ESAP there was a serious drought. Another drought ensued in 1994/95.

Though warranted to an extent, the expenditure was impromptu and unbudgeted. Despite this the Reserve Bank of the country printed money for the unbudgeted exercise. But before the end of the year, the country had plunged into an economic ditch. On November 14, 1997, for the first time in Zimbabwean history, the currency dropped 72% against the US Dollar. This day is remembered in Zimbabwean history as Black Friday. A related defining moment in the history of Zimbabwe, is that of the despatchment of 3,000 Zimbabwean troops, later amounting to 11,000, sent to fight a Southern African Development Community (SADC) cause in the Democratic Republic of Congo war against Ugandan and Rwandan backed rebels in 1998 (Mbeki, 2009). This move was again unpremeditated, and in following the previous pattern, more bank notes were printed for the unbudgeted assignment, resulting in a furthered snowballing inflationary situation.

1998-2005

With a full-blown economic collapse looming over the horizon, 1999 saw the birth of a formidable opposition party - the Movement for Democratic Change (MDC) which was birthed out of the Zimbabwe Congress of Trade Unions (ZCTU). The ZCTU had been established by the ruling party, the Zimbabwe African Union - Patriotic Front (ZANU PF) after independence in 1981 to represent the black majority workforce. By the late 1990s however, the union had become disillusioned by the ruling party's oppressive rule and unresponsive policies. Thus the MDC sought to restore the rule of law as well as to enact sound economic policies. The birth of the MDC marked the materialization of political tensions that had been escalating but held back by civic fear. This period was characterized by extensive civic protests that were met with active resistance from the armed forces.

Surely everything in the country had become politicized, including the land reform operation. While the market-based instruments of land reform had been suspended a few years back, land grievances by rural farmers who were now supported by ex-liberation war fighters had re-emerged. Faced with the possibility of losing electoral votes to the opposition party, the government made the populist decision of revisiting the land question. However, because the British government had withdrawn the fund to carry out the 'willing-seller, willing-buyer' transactions, the only alternative to land

redistribution was by forceful accumulation or primitive accumulation. The year 2000 was therefore characterized by a level of political violence not seen since the 1980s. The Third Chimurenga War[109] had started under the guise of land reform.

Aside from the targeted white farmers, the land invasions affected close to 350,000 native farm labourers (Richardson, 2005), who together with their families amounted to over a million people (PHR, 2009). This on its own resulted in one of the country's major internal population displacements (IDMC, 2008). The land invasions are said to have also dismantled the commercial farming sector, which had been a crucial sector, contributing 15-19% of the country's GDP and 60% of its foreign exchange revenue (UNECA, 2002). As Mbeki (2009) also points out, the commercial farming sector was the key driver in generating 60% of raw materials for secondary industries, export goods for foreign markets, and fertilizers, pesticides, and other agro-equipment for the local market, thus bringing in revenue. Therefore the collapse of the commercial farming sector contributed to food insecurity, mass unemployment, increased hyperinflation, political turbulence, and the general weakening of the economy.

Following the chaotic situation and apparent human rights violations, economic sanctions were imposed on Zimbabwe by the West, first by the EU in 2002 and then America in 2003. The Reserve Bank Governor at the time, Dr. Gideon Gono (2006) summed up some of the effects of the sanctions as: negative impacts on the financial sector; the decline in balance of payment support; sustained decline in offshore financing; sustained decline in long-term capital; socio-economic repercussions with grave development impacts on the health sector, agricultural and rural sector, education sector, as well as on investment and growth.

Despite this very familiar list of consequences broadcasted endlessly by the government, the fact remains that the economic sanctions were largely targeted (Mlambo, 2014). The Zimbabwe Democracy and Economic Recovery Act of 2001, which is often the reference point for US sanctions, was merely an intervention policy set to pressure the government into restoring order in Zimbabwe. Section 4 of ZDERA states:

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[109] The first Chimurenga and Second Chimurenga Wars were anti-colonial rule struggles. The Third Chimurenga War was a racialized post-colonial land struggle (see Mlambo, 2014).

Through economic mismanagement, undemocratic practices, and the costly deployment of troops to the Democratic Republic of Congo, the Government of Zimbabwe has rendered itself ineligible to participate in International Bank for Reconstruction and Development and International Monetary Fund programmes which would otherwise be providing substantial resources to assist in the recovery and modernization of Zimbabwe's economy.[110]

Although ZDERA directs the US representatives at major international financial institutions (IFIs) to oppose any new credits or debt relief for Zimbabwe, it has had no distinct impact in that regard. The IMF (2001) claims that prior to 2000, Zimbabwe had defaulted its debt payment plans and was already on those grounds ineligible for further funding. As already implied, the actual sanctions by the US (i.e. Executive Order 13288) were issued in 2003 and were targeted at specific individuals[111] (Leo & Moss, 2009). The EU had earlier issued its own sanctions in 2002. Similarly, these were smart sanctions aimed at specific government officials. Unlike the US, the EU included an arms embargo and a curb on certain trade items. Also unlike the US, the EU lifted its sanctions on Zimbabwe in 2014.

In all this, what is constantly discounted by pro-government commentators is that it is Zimbabwe's debt burden (in the range of $7 billion) and not the sanctions that is what presently hinders the country from accessing funds from IFIs to alleviate the economic strain. Zimbabwe, faced with utmost isolation in the 1960s-70s had ironically survived economic sanctions under the Unilateral Declaration of Independence (UDI) as Rhodesia. During this isolation period there had been an economic boom between 1965 and 1972 evidenced by an annual GDP growth of 6% (Sachikonye, 2011), leading to the conclusion that:

Rhodesia's survival, years later, was ipso facto proof, for popular opinion as well as for many scholars, that 'sanctions don't work.' (Minter & Schmidt, 1988, p. 207)

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[110] Zimbabwe Democracy and Economic Recovery Act of 2001 US Public Law 107-99, December 21, 2001.
[111] In this case, US-based assets of 137 members of Zimbabwe's ruling party were frozen, including 36 companies and 28 farms. Also under Executive Order 13288, US entities and persons are prohibited from conducting business transactions with these people, and travel sanctions against these people are also in place.

Embittered by the current sanctions however, the government perceived a Western conspiracy against Zimbabwe. Determined to challenge the West, the government continued with its firm rule, now even more determined to be anti-Western imperialist in every sense. As Raftopoulous (2006, p. 212) surmises, faced with the after-effects of neoliberalism, its loss of popularity and the emergence of a formidable opposition party, the GOZ turned into something new and nasty. However this did not help the economy that had already nose-dived into the abyss of doom. At the end of 2000, per capita incomes were lower than in 1960 (Ndlela, 2009), and by 2004, exports were a third of what they had been in 1977 (Mlambo, 2014).

2005-2008

In 2005, the GOZ embarked on an Operation Restore Order (Murambatsvina)[112] to evacuate urban people from illegal structures. This is an operation, which according to the global community and in particular the UN, was considered a social injustice. The UN had sent delegates to witness the exercise, and had reported that about 92 460 housing structures had been demolished affecting about 133 534 households and with an estimated 570 000 people left homeless (IDMC, 2008). Many small enterprises in the form of tuckshops and vending structures were also destroyed, and in the process, the livelihoods of many poor urban people, a total number amounting to about 98 000, were disrupted (ibid). The total number of those affected either directly or indirectly was placed at 2.4 million people (PHR, 2009).

In subscribing to mainstream thought surrounding the displacements, Physicians of Human Rights (PHR) believe that the displacements were politically motivated, implying that the operation was aimed at dismantling the opposition party's strongholds which were in urban areas (PHR, 2009). Yet the government saw themselves as merely clearing up illegal structures to clean up the cities. The government advised that those living illegally in the cities go back to their rural homes because every Zimbabwean had a rural home (Derman, 2006). As a rule, rural areas represent contingency (Paradza, 2010), and because of this, the State commonly assumes – incorrectly – that the traditional African home stands ready with open arms, to welcome every 'prodigal' kin from urban areas

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[112] Murambatsvina in the Shona language means 'cleaning out filth'. A second Murambatsvina was enacted in 2015. However, this time it was targeted mainly at informal vendors in urban areas.

(see Rwezaura et al., 1995). This widely held but false notion about rural areas is only one of many of the GOZ's 'myths' that wrongly inform policy and practice. In the previous section, another myth that was brought to light was that of sanctions being the root cause for the economic crisis. Along the same lines, the GOZ also erroneously informs people that the weather is to blame for Zimbabwe's economic crisis (see Mbeki, 2009). Although there is a clear relationship between GDP growth and rainfall variability, Zimbabwe's unlucky weather cannot sufficiently account for the economic collapse because, in recent years, where rainfall has been normal, GDP has not increased (Clemence & Moss, 2005, p. 3). Also, after 1999, the droughts are in fact relatively minor when looked at over longer periods of time (Richardson, 2007). Three more myths will be tackled in Chapter 10.

However, by the end of 2005, the loss of the country's wealth from land seizures alone was estimated to be around ZWD$5.3billion. This amount is believed to be more than all the foreign aid Zimbabwe had received since independence (Richardson, 2013). Other studies also claim that the income Zimbabwe lost between 1999 and 2004 alone exceeds losses suffered by countries like Cote d'Ivoire, Democratic Republic of Congo, and Sierra Leone in their individual conflicts (Clemence & Moss, 2005). By now, it seemed that everything that could possibly go wrong in Zimbabwe had gone wrong, including the weather (Mbeki, 2009). Conditions of frequent drought spelled out uncertainty in a country where over half the population is rural, needing food aid to supplement its yield deficits (Richardson, 2013).

Due to the escalating interlocking crises, the inflation rate hit a record 231 million percent in 2008, making Zimbabwe the first country to hyper inflate in the 21st century.[113] Richardson (2013) states that by 2008, Zimbabwe was 36% poorer than it was in 1998. Although things had been progressively souring for Zimbabwe between 1996 and 1998, it had remained among some of the fastest growing African economies. The remarkable U-turn took place between 1999 and 2008 when it became one of the fastest shrinking African economies (Kaminski & Ng, 2013). Hence with empty shelves in the supermarkets, unprecedented fuel shortages, yet another drought, food insecurity,

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[113] Zimbabwe's inflation record comes second to Hungary in world history.

and a valueless currency, the year 2008 marked the peak of the Zimbabwean crises. The economic crisis also led to water shortages, waste accumulation, and sanitation problems. These in turn culminated into a countrywide cholera epidemic. The epidemic erupted in August 2008 and lasted until June 2009, killing at least 4,000 people, with over 100,000 reported cases of illness (McSweeny, 2011). It was the worst cholera case in Africa in about 15 years (Mukandavire et al., 2011). An unforgettable headline from a 2008 newspaper article read:

> *Zimbabwe's Cholera Victims Ten Times more Likely to Die.*[114]

The reasoning behind the headline was that the high fatalities were being compounded by other factors such as poverty, hunger, HIV/AIDS, and a poor public health system. By November 2008, newspaper reports revealed that three out of Zimbabwe's four major public hospitals had shut down, along with the country's only medical school. The fourth major hospital was functioning only with two wards, no operating rooms, minimal medical staff, and a shortage of basic drugs (Hungwe, 2008). This information was corroborated by studies done by the Physicians for Human Rights, which identified two of the closed hospitals as Parirenyatwa and Harare Central Hospital. These are Harare's two largest hospitals, and both had shut their doors in November 2008. At that time it is said that Harare Central Hospital had not had running water since August 2008 (PHR, 2009). The timing for the closure of the health centres was untimely as this was about four months into the cholera epidemic and was the time when people needed health facilities the most (ibid).

Some notable quotes in response to the health situation during this period include the following:

> *Hospital wards in one of Zimbabwe's main hospitals bear a resemblance to deserted, poor rural classrooms and the country's empty supermarkets.*[115]

> *The neglect of the health sector by the government is genocide … To me nothing can explain this better, it's genocide, simple.*[116]

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[114] Berger and Thornycroft (2008).

[115] Doctor representing the Zimbabwe Junior Doctor Association cited in Hungwe (2008).

Right now I have no anti-hypertensives, no antiasthmatics, no analgesics, nothing for pain … I have a woman in labour, I have no way of monitoring blood pressure … and I have no suture material to do a repair if she tears.[117]

I have no pain medication, I have some antibiotics, but no nurses … If I don't operate the child will die, but if I operate the child will also die.[118]

According to National Science Foundation's President Rita Colwell (2013) the cholera outbreak should never have gotten this far out of hand; Zimbabwe had been previously renowned for its fairly good health system and should have managed the outbreak well. But due to the economic crisis, what started off as a sanitation problem spiralled into an alarming extermination of people by a manageable disease. Food insecurity during the peak economic crisis also increased the incidence of tuberculosis, which to some extent is linked to the HIV/AIDS virus (Burke et al., 2014). Improved TB management since the climax of the crises suggests that the TB epidemic at first mirrored the socioeconomic collapse and then the subsequent recovery of the country (ibid).

Given the above, in 2008, Zimbabwe had a record low life expectancy of 34 years for women. The life expectancy for men was 37, and for both sexes these figures were down from 62 years in 1990 (PHR, 2009). The economic situation also spiralled into a 'mass exodus,' which as one newspaper article noted:

A [South African] border official called it a human tsunami of people fleeing the nation.[119]

Explaining the mass exodus, a government physician disclosed his monthly gross income in ZWD which at the time (November 2008) was worth USD $0.32 (PHR, 2009). Yet due to the inflationary situation, prices were said to be doubling every 24.7 hours (Richardson, 2013). Inevitably, the country suffered an enormous brain drain (Mbeki, 2009).

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[116] *ibid*.
[117] Nurse in a Rural Clinic in Zimbabwe cited in PHR (2009).
[118] Paediatric Surgeon in a major hospital in Zimbabwe cited in Hungwe (2008).
[119] theTrumpet (2007).

On December 4, 2008, the President declared a state of national emergency. But, this was only in response to the cholera situation. As far as all else was concerned, the country was considered to be running business as usual. Dramatising the GOZ's mastery at suppressing truth, Chikwava (2005, p. 14) demonstrates in his fictional book, how even at the peak of a food crisis, the State will insist that everything is in order. For, according to the State,

> *Officially no one starves because there is plenty of food on supermarket shelves. And if it is not there, it is officially somewhere, being hoarded by the enemies of the State.*

2009 to date

Fast forwarding to the present day, set within a context of a liquidity crunch, weak financial institutions, poor public sector delivery, closure of companies, a shrunken labour market, high unemployment rate, informalisation of the economy, high decent work deficits, low industry productivity, and reduced foreign direct investments, Zimbabwe's economy remains compromised (IMF, 2014). Commendable economic progress has however taken place since 2008. For as Richardson (2013) states, "…*to be fair, the country is better off than it was*…" in 2008 (p. 2). To ameliorate the hyperinflation, an appointed Government of National Unity (GNU)[120] had discontinued the local currency in 2009, introducing a multicurrency system which is chiefly dollarized.[121]

Irrespective of the marked progress, the economy is still relatively fragile, as was demonstrated by a deceleration in real GDP growth from 10.6% in 2011 to an estimated 4.4% in 2012, (AEO, 2013) and 3.3% in 2013 (IMF, 2014), but with a predicted rise of 5.7% in 2014 (AEO, 2013). The growth was debated by Article IV of the IMF Consultation which showed that the 'economic rebound' experienced by Zimbabwe since 2009 was ephemeral (IMF, 2014). The debate was justified by a further deceleration of real GDP growth to 1.5% in 2015 (UNECA, 2016). In support of the downward spiral in GDP growth, Richardson (2013) argued that the economic growth rates seen in Zimbabwe

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[120] Government of National Unity consisting of ruling party ZANU PF and opposition parties MDC T and MDC M. The GNU was dissolved after the 2013 Presidential elections.
[121] The US dollar is the official currency for government trade.

after 2009 did not reflect Zimbabwe's long-term economic prospects. Instead they drew attention away from the enduring economic problems such as the ones already mentioned.

Now nearly seven years since the temporary restoration of the economy in 2009, industrial capacity has decreased from 57% to 34% (Pilling & England, 2016). The capacity utilization levels in the manufacturing sector have dropped due to a slowdown in business activity. In addition, consumer prices have fallen by between 2-4% (ibid). This means that there is a shortage of money (the US dollar) in circulation which has impacted consumer spending. As a result, supply of goods is high, demand is low, and in turn, consumer prices are falling. In short, inflation has been replaced by deflation. Pilling and England (2016) note the significance of this, citing a Zimbabwean banker who stated: for the man on the street deflation looks good, but to an economist, the economy is going through stagnation and the country, deindustrialisation. Subsequently, as long as there is no production in the economy, it does not matter what currency is in use, or in local street language, 'it is impossible to rig the economy'[122].

Zimbabwe's sick economy is also characterized by the high informalisation of the economy. One study revealed that the informal sector functions as the second economy of the country and had escalated from 10% at independence in 1980 to 70% in 2008 (Makochekanwa, 2012). More recently, TheEconomist (2015) claimed that the Zimbabwe National Statistics Agency (ZIMSTAT) disclosed that 94.5% of the 6.3 million people defined as employed were working in the informal economy. While some critics had questioned the broad definition used of informality, using a stricter definition of the term only reduced the number down to 86%. The loss of formal employment, informalisation also leads to unemployment - another symptom of the sick economy. Actual figures for unemployment are disputed among major organizations such as ZIMSTAT, National Social Security Authority (NSSA) and the Zimbabwe Congress of Trade Union (ZCTU), with the government parastatal ZIMSTAT giving the lowest figures of unemployment rate of 11%. The more realistic, albeit speculative, figures of unemployment in Zimbabwe range between 94% and 80% for the 2008 to 2014 period.

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[122] Figure of speech used typically by disenfranchised citizens who mockingly say that while it may be possible for the government to rig electoral votes, it will be impossible for it to rig the failing economy.

Makochekanwa (2012), maintains that the unemployment rate went up from 70% in 2003 to 94% at the peak of the crises in 2008. A local newspaper however revealed an unemployment rate of 80% based on figures sourced from a ZCTU survey in 2014.[123]

Nonetheless, aside from already noted undulant real GDP, the GDP per capita has also dramatically shifted from 9.2% in 2011 to an estimated 3.1% in 2012, with a further 3% decline in 2014 (AEO, 2013). This suggests new forms of vulnerability which will be extensive, possibly exceeding the usual vulnerability that is considered as possessing either the face of a peasant or that of a woman. To highlight the policy environment presiding over the economic crises, the situation is said to be one of " … *the persistence of macroeconomic instabilities combined with policy responses only aggravating rather than remedying economic problems*" (Kaminski & Ng, 2013, p. 2). These two scholars reason that the economic crisis in Zimbabwe is a result of a combination of factors, a mixture of which defies economic logic. What is less baffling according to their argument is that the demise is entirely home-brewed. A vicious cycle of bad policies has played an instrumental role in the deterioration of the business environment, causing negative implications for industry growth, foreign direct investment, employment, and so forth. In further explaining the policies that lead to the crises, Munemo (2012) reasoned that in contexts where policy making is personalized rather than institutionalized, people perish at the whim of the personal ruler.

The Zimbabwean situation is far too complex to be downgraded to a single plot. However for the role that governance plays, Cain (2016) highlights that under the rule of the incumbent government, "Zimbabweans have been subject to gross violations of property rights, including state-sponsored expropriation and vandalism, corrupt politicians, restrictive business regulations, and an abysmal monetary policy"(p. 1). As Cain points out, any one of these factors would have been detrimental to any economy, which explains why all of them combined have caused untold devastation for a country that once beamed as the bread basket of Africa. Cain concludes that poor governance is at the core of Zimbabwe's problems. Quoting the first inaugural address of the former American President Ronald Reagan, he writes, "Government is not the solution to the

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[123] Mtomba (2014).

problem; government is the problem." To also borrow from the usage of a Shakespearean expression by Mkandawire and Soludo (2003), the Zimbabwean situation, 'is not in its unlucky stars' but is a result of the many acts of omission and commission to a greater extent by the government, that have resulted in an interlocked crisis

Conclusion

The retrospective analysis given in this chapter gives a clear picture of the past and present situation for rural men and women In Zimbabwe. Through the narrative, we see the manifestation of Ribot's[124] claims that, 'vulnerability just does not fall from the sky'. Crucially, we see directly how political instability can lead to an economic crises and how an economic crises can in turn lead to implications on the health, education, agriculture sectors and the welfare of an entire population found within the crises region. In such a fragile environment, the cases of poverty feed into the perpetuation and escalation of natural risk, while social problems lead to the disorganisation of society, impinging more directly on people's adaptive capacities. When approached from an all-inclusive angle, it becomes much clearer that situations of vulnerability are sometimes formed starting from the macro context, slowly circling in on smaller units of production, distribution and consumption at community, household and individual levels in micro contexts. The next chapter will focus more closely on the micro-context of the study, presenting the case study areas for this study.

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[124] Ribot (2009)

Chapter 7: Case Study Areas

> Living as we did – on the edge– we developed a particular way of seeing reality,
> We looked from both the outside and the inside out.[125]

Introduction

Buhera and Nyanga are two of the seven Districts that make up the Eastern Province of Manicaland. This chapter will describe these two districts, which were the focus of my research. The chapter will be divided into three parts. In the first part, I will give a general account of the organisation of the rural areas of Zimbabwe in terms of resource access. This will be followed by an account of the agro ecological zones under which all rural areas, including Buhera and Nyanga fall. Given that Buhera and Nyanga are predominantly farming communities, it is necessary that I delve into matters relating to their agro viability. Doing so will enable a clearer understanding of the opportunities and limitations that rural men and women in these areas face in their daily lives. In the second part, I will discuss each case study in terms of its physical environment and socioeconomic characteristics, demography, soil, vegetation, and hydrological characteristics. In the third part, I will conclude the chapter with an analysis of the rural ecological crisis in general, this being to compliment and extend the previous discussion of the socioeconomic crises.

Part One: Organisation of rural areas

The typical Zimbabwean rural area consists of private land as well as shared features which are Common Property Resources (CPRs)[126]. The shared features include land with unlimited access to grazing land, forest and water resources, including built structures such as boreholes and cattle dips (Muir-Leresche, 2006). In terms of property rights, communal land is accessed through the Communal Land Act (1982) (see Chapter 4)[127].

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[125] hooks (2000)

[126] The term Commons or Common Property Resources (CPRs), which for the most part are natural resources (NRs), are a wealth belonging to and shared by a community, meaning that they are public goods. However they are not just any public goods, but those that are governed by property rights (Ostrom et al., 1999) and defined by the power to exclude non-community members from reaping the benefits (Cousins, 1992).

[127] The Communal Land Act defines communal lands as lands, which, prior to 1983, were designated as Tribal Trust Land[s]. With the passing of the Act, the authority over these lands shifted from 'traditional rulers to local authorities. Hence, the Act states that communal land is vested in the President who is to permit it to be used and occupied in accordance with the Act (see Chapter 4).

However, while the State owns the land, local leadership in the form of chiefs and headmen are responsible for allocating land and NRs as well as exercising control over the use of these resources. The people in the communal lands are thus settled under constituencies called wards led by a chieftaincy (*Ishe*) and each ward is divided into villages led by headmen (*Sabhukus*). Ideally, people under respective villages are the defined users of the CPRs within their jurisdictions, yet due to population pressure, poverty and resource scarcity the contravention of village boundaries is not uncommon.

Although communal land borders have ceased to be recognised as a political divide, they continue to be seen as such in order to mark the dissimilarity between communal farming activities and commercial farming activities (Phillips et al., 1998). There remains dissimilarity where the former are distinguished by poor agro-ecological climatic patterns, degraded and marginalised lands and by a strong reliance on rain-fed farming. Out of the total surface area believed to be under irrigation in Zimbabwe (120 000ha), only 9% falls under smallholder farms as opposed to 82% under commercial farms (Poulton et al., 2002)[128]. Rural areas are also known to make use of semi-traditional methods of farming where farm operations and resources are shared. Conversely, commercial farms are characterized by fertile soils, favourable agro-ecological climatic patterns, as well as a focus on specialised farming that is highly intensified and mechanised. The highlighted dissimilarities serve as a picture perfect characterization of the once dualistic farming system (Mutekwa, 2009), now trimodal since the land reform in the year 2000 (Moyo & Chambati, 2013)[129].

Agro ecological zones

Agro ecological zones (AEZ) are regions that are delineated on the grounds of homogeneity in topography, soil characteristics and climatic patterns of place. Such zonal designation shows the distribution of land with similar farming potential and constraints within a country (Chikodzi & Mutowo, 2012). The initial agro ecological survey in Zimbabwe was carried out by Vincent and Thomas (1960). They came up with 5

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[128] Mutisi (2009) suggests that the percentage area of irrigated land in smallholder farming areas is a meagre 7%.

[129] In Chapter 6, it was shown that the once dualistic farming system involving small scale and large scale farms had after the land reform become deracialised and trimodal involving small, medium and large scale farms.

agro ecological zones (AEZ I-V) that appraise the potential of land in relation to the three factors already mentioned, which are topography, soil characteristics and climatic patterns (Munasirei, 1988). Based on their characterisation, zone I is the most agriculturally productive and V the least (see Table 12).

Table 12: Distribution Patterns of agro-ecological regions in rural Zimbabwe

Natural Region	Area (ha)	% of total country	% of total rural areas	Pop density 000s (km²) Rural areas	Annual rainfall (mm)	Farming Systems
I	703 400	1.8	0.5	0.9	> 1000 rain all year round	Specialised and diversified farming
II	5 861 400	15.1	9.4	16.0	700-1050 summer rain	Intensive farming
III	7 287 700	19.5	18.2	31.1	500-800 Infrequent rain, seasonal drought	Semi-intensive farming
IV	14 782 300	36.7	45.9	78.3	450-650 erratic rain, seasonal drought	Semi-extensive farming
V	10 441 100	26.8	25.9	44.2	< 450 very erratic rainfall, frequent drought	Extensive farming

Added to the five, a sixth zone is occasionally discussed. Zone VI is said to encompass the extremely low veld and Zambezi valley areas that are entirely unsuitable for crop husbandry and are the targeted locations for game reserves (Mandima, 1995).

Buhera Natural Farming Regions

Buhera District encompasses regions from AEZ III to V. Gunura, the site from where data was collected within Buhera, falls under AEZ V. As is shown in Table 12 above, farming regions III to V have the most flawed agro-climates, and yet have the highest population density. Consequently, poverty is more common in communal areas within these regions (Rukuni, 1994).

Table 13: The Distribution of Agro Ecological Zones in Buhera (Areas ha)

Natural Farming Region	Area	% District	Coverage
III	172 257	32	Parts of Buhera North and Buhera West
IV	181 823	34	Parts of Buhera North, West and Central
V	182 844	34	Buhera South

Nyanga Natural Farming Regions

Peculiarly, Nyanga is one of the few Zimbabwean Districts with a concentration of all five AEZs. The greatest portion of Nyanga falls under regions I and II combined, as opposed to regions III to V combined (see Table 14). Accordingly, while there are some extremely favourable agro ecological areas in Nyanga, there are also highly unfavourable ones. Most rural areas are located in the northern parts of the District and fall under regions III-V. Region V is however only just a small stretch that in Chapatarongo - the area where data from Nyanga was collected for this study. Effectively, this single ward has characteristics of farming regions III to V.

Table 14: Distribution of Agro Ecological Zones in Nyanga by Settlement Pattern (Areas ha)

Natural Region	Commercial Farms	Rural Areas	RA Models A1&A2	National Parks	Recreation Areas	Forest Land	Other	Total	% of Total
I	63 330	8 758	43 044	33 053	Nil	10 950	2100	161 235	27
IIA	Nil	49 799	10 832	Nil	Nil	400	Nil	61 031	10
IIB	14 060	42 587	39 586	850	500	5 000	3 295	105 878	18
III	Nil	70 582	24 000	Nil	2 837	Nil	5 163	102 582	17
IV	Nil	131 645	1 350	21 407	Nil	Nil	370	154 772	26
V	Nil	4 284	Nil	Nil	Nil	Nil	Nil	4 284	0.7
Total	77 390	307 655	118 812	55 310	3 337	16 350	10 928	589 782	100

Current debate on Natural Farming Regions in Zimbabwe

Together, the 5 agro ecological zones are increasingly becoming an area of great concern (see Chikodzi et al., 2013; Manyeruke et al., 2013). On account of climate change, it has been reported that AEZ IV and V have increased by 5.6 and 22.5 %, respectively (Mugandani et al., 2012), while AEZ II and III have shrunk by 49% and 14% respectively (Manyeruke et al., 2013). The shifts could cause a major reduction in food production, opening up doors to food insecurity. Indeed, food insecurity is a pressing issue that is emphasised in the findings gathered in the field as will be seen in Chapter 8.

Part Two

Buhera 'the land of the VaHera'

> Our wagons of course could not go, as our way would be by the narrow native paths...
> In these words Theodore Brent begins his description of his 1891 expedition, one hundred years
> ago into what is now Buhera District. They had to leave the wagon behind.
> Brent and his wife performed the trip on horseback[130]
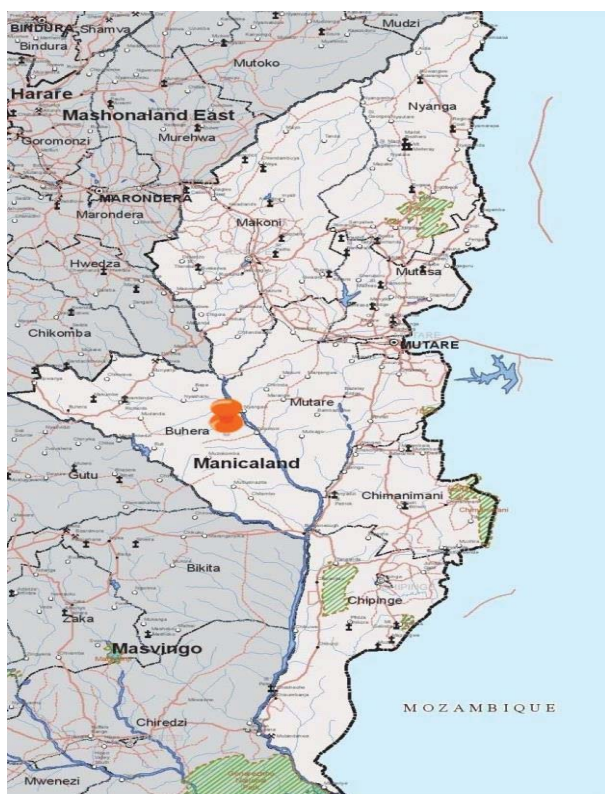
Buhera is a District located in the south western low veld of Manicaland Province. It was named after the predominant inhabitants occupying the region; the VaHera tribe of the Shava totem (Palmer, 1977). Buhera is positioned approximately 170km south west of the Provincial capital, Mutare. On the eastern margins, the Save River serves as Buhera's eastern frontier, meandering all the way southward of the District. On the western margins, Nyazvidzi and Devure Rivers act as Buhera's western frontiers. Nyazvidzi feeds into Devure which meanders southward to its eventual confluence with Save. Hence Buhera's base is demarcated by the confluence between Save and Devure Rivers[131]. It is within the close proximity of this location where Gunura, the precise case in point for this study is situated. Despite being stationed between perennial riverine systems, Buhera is a low lying semi-arid area which for the most part is dry and agriculturally unproductive (Chisvo et al., 1997). Moreover, Buhera South falls on the leeward side of the eastern border mountain ranges and receives dry south-easterly trade winds (Lindahl & Matenga, 1995a).

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[130] Description of Buhera by Theodore Brent taken from Lindahl and Matenga (1995a).

[131] At the Town of Birchenough Bridge, the Save River changes course and meanders south east where it ultimately converges with the Runde River[131] before emptying into the Indian Ocean. The confluence between the Save and Runde Rivers marks the lowest altitude in Zimbabwe, which is about 162m above sea level.

Physical Environment and Socioeconomic Factors

Buhera is unique in that it comprises mostly communal lands and is often regarded as being 100% rural[132]. Buhera is thus poor and is fairly underdeveloped. This is evidenced also by the sketch below which shows how the District, which spans an area of 5364 km² only has about 90km of tarred road[133].

Figure 17: Sketch showing Buhera's road networks[134]

Adapted from Andersson (2002)

A journey worth noting is one between Murambinda (point 2) and Birchenough Bridge (point 5). This is a familiar road that I took to get to my case study area, Gunura. The road is a motorway that is characterised by about 120km of a long winding dirt road[135]. It takes approximately 5 hours to travel the road by bus and yet this is a distance that should take much less. The local people call the dirt road, the 'Kangai Highway', nicknamed after the late Kumbirai Kangai who served as MP for Buhera South from independence in 1980 to 2008. In spite of his promises to develop the road, this never happened. Nonetheless, while many in Buhera rely heavily on public transport, others still use traditional transport systems such as donkey and cart, or foot. Maruzani (2014)

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[132] There is however a slight exception with the population in the demarcated 'urban' area found at Murambinda Growth Point classified as being 2.8% of the total population, compared to the 97.2% classified as rural (ZIMSTAT, 2012).

[133] Other studies have come up with different figures, for example Mvumi et al. (1998) set the expanse of tarred road at 92km, and Mzezewa (2009) at 85km.

[134] The tarred road runs from Nyazura (point1), past Murambinda (point2) and Buhera District Centre (3) going towards Chivhu (point 4), yet Buhera stretches all the way down to Birchenough Bridge (point 5).

[135] As with the old dirt road portrayed by Theodore Brent some 123 years ago (see quote at the start of this chapter), the current dirt road remains poorly developed. Over the years, the dirt road seems to have been unsophisticatedly levelled through anthropogenic influences and then left to cycles of the weather elements to episodically shape its course.

reports that there are women in Buhera who walk distances of up to 70km to get to larger markets.

Aside from the poor road networks some level of infrastructural development can be spotted firstly at Murambinda in Buhera North, where the 2.8% urban population resides, and further north east, where the 2 geological establishments, the Dorowa and Shawa mines are situated.

Figure 18: Location of Dorowa and Shawa Mines

Source: Author

These are significant sites. The Dorowa mine is the largest phosphate producer in the country, and Shawa mine is purported to have among the largest vermiculite deposits in the world[136]. Notwithstanding the production levels at both mines, their presence in Buhera has not had a positive impact on the development of the area. Although both have been operational for over 5 decades, there is not a single school in the vicinity of Shawa, and while there is a school close to Dorowa, the mine was not responsible for its construction (Mukwakwami et al., 2014).

It may however come as a surprise then, that the earliest inhabitants of Buhera, who are thought to have settled around this area between the 14th and 15th centuries, are believed to have been wealthy people, affluent enough to build elaborate stone structures that stand today as archaeological evidence[137] (Palmer, 1977). In these areas, aristocratic vestiges in the form of beads and pottery were found (see Lindahl &

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[136] According to Van Straaten (2002), two vermiculite mining companies (Samrec Vermiculite, and Dinidza Vermiculite Mining Co.) operate at the Shawa alkaline complex in Buhera. The production of vermiculite from both mines for the international market was 14 841 tonnes in 1997 (Samrec Vermiculite was however expected to increase production to approximately 40 000 tonnes per year in 2001/2002). On the other hand, since the 80s Dorowa phosphate mine has produced an annual average of 1 128 300 tonnes of ore, yielding 132 000 tonnes of concentrate.

[137] The stone ruins are located in the central and uppermost parts of the District.

Matenga, 1995b). Buhera was also renowned for pedigree livestock, as evidenced by the picture below which shows that the first Mashona bull to be registered for record purposes in Zimbabwe in 1950 was bred in Buhera[138].

Mashona bull MCS1 the first animal to be registered in the Herd Book was bred in Buhera Reserve. It walked 200 miles at the age of three months with its mother.

Source: Holness (1992)

As the years progressed however, Palmer (1977) noted that the VaHera people gradually became poorer, such that as the 19th century advanced, their poverty had become more manifest. Buhera's well-known poverty today is also supported by a phrase captured from a local leader in Gunura, '*nzara haichasiyani nesu*' – the direct transliteration being 'hunger won't leave us alone'.

Demographic Characteristics

Buhera is made up of 33 administrative wards divided into Buhera North, West, South and Central. Falling under the jurisdiction of Chief Chamutsa, Gunura (ward 30) is located in Buhera South.

Population	
District Population	245 878 (53.6% women, 46.4% men)
Ward 30 Population	4 682 (54% women, 46% men)

Source: (ZIMSTAT, 2012)

Hydrology

It is generally believed that there are 8000 man-made water impoundments in Zimbabwe (Matiza, 1994) out of which 1686 are available to communal areas (Mheen, 1994). Of these, each is said have to a storage capacity of less than 100 000 m³, which corresponds to a surface area of less than 10 ha (ibid). It is further believed that there

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[138] Since ancient times in Zimbabwe, cattle were not only considered as being instrumental for draught power, consumption, trade or dowry purposes but were also regarded as a sign of social status (Barrett, 1991).

are 679 dams in Manicaland (Sugunan, 1997) corresponding to an irrigated surface area of 4248ha (Poulton et al., 2002). While the Manicaland figures do not give a clear picture of the availability of dammed water to the communal areas, what is certain beyond reasonable doubt is that the 33 dams in Buhera cater largely to a communal population (see Table 15). With a mere capacity of 3 795 m³, the 33 dams service a total population of 245 878. On a comparative scale, Buhera has the smallest number of water impoundments in Manicaland, yet it is the driest and poorest in the Province (see Chisvo et al., 1997).

Table 15: Dams in Manicaland Province

District	Number of Dams	Capacity (million m³)
Buhera	33	3 795
Chimanimani	57	739
Chipinge	93	10 751
Makoni	225	88 601
Mutasa	147	11 623
Mutare	73	23 191
Nyanga	51	9 956
Total	679	148 656

Source: Sugunan (1997)

Underground water sources

Although rural people rely on surface water sources (rivers, dams) for farming and domestic use, most have underground reserves as their main water source for domestic use (Machingambi & Manzungu, 2003). Accordingly, 80% of the water sources in Buhera are believed to be from underground water reserves (Chinamasa & Mavhiza, 2014) but the water sources are not sufficient to cater for the entire population (see Table 16).

Table 16: Water points in Buhera in relation to population

Type of water point	# of water points	Percent%	Recommended population	Actual population
Shallow well	237	25	11 850	15 372
Deep well	214	23	32 100	39 671
Borehole	495	52	123 750	149 599
Total	94	100	167 700	204 642

Source: Chinamasa and Mavhiza (2014)

Taking into account Buhera's population of 245 878 people, Table 16 shows that there is a deficit of water points. For current water points serve an actual population of 204 642 versus the recommended population of 167 700 people. Working with the total number of water points could be problematic however because some water points exist only in name (see Mvumi et al., 1998). At the end of the day, it could mean that the actual number of people without reliable access to water could even be greater.

Irrigation Systems in Buhera

The surface area under irrigation in Buhera is insufficient to sustain the livelihoods of those in the driest regions (Chisvo et al., 1997). In spite of this, the only existing irrigation schemes in Buhera are Murambinda (35ha)[139] in Buhera North, in addition to Bonde (600ha)[140] and Dewure (300ha)[141] in Buhera South (Mzezewa, 2009)[142]. Out the two irrigation schemes found in Buhera South, Bonde is located in Gunura (ward 30).

Bonde Irrigation Scheme

Bonde covers an area of 600 ha, and has been developed in phases, although at the time of writing the development was suspended (Savva et al., 2002). However the residents of Buhera South are disillusioned with the irrigation scheme as so far it has benefited just a few, particularly older people. Of the targeted 600 households, the scheme has so far benefited 364 households[143]. Current beneficiaries are reflective of only 34% of the total households in Gunura.

Another curious case regarding the Bonde irrigation scheme is that it was initiated in 1996 but was only operational till 1998. Economic hardships were noted by participants as being the major cause for its suspension. Due to worsening economic hardships beneficiaries were unable to contribute their monthly premiums towards the utility costs of the scheme. This then led to the supply of electricity for water propulsion being cut off. The participants also noted technicalities involving the maintenance and repair

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[139] Currently the Murambinda irrigation scheme has as few as 29 plot holders. The construction of the Marovanyati dam on the Mwerahari River is expected to increase the surface area under irrigation.
[140] Bonde has 364 plot holders.
[141] In total, Dewure scheme is said to serve 313 plot holders.
[142] Other irrigation schemes are said to include Mashoko, Chinyamatuhwa and Nembare (see Mtisi & Nicol, 2003). Further details of these schemes are not provided by this or any other study.
[143] Bonde has 3 blocks, A, B and C. Each sub block is made up of 40 fields of 1 ha each.

of some of the pumps needed to sustain operations at the irrigation scheme. At the time that the irrigation had ceased operations, the government had postponed its commitment towards the refurbishments needed for the irrigation to run as they had been other national priorities to consider.

Image 7: Pump House at Bonde   Image 8: Pumping Unit at Bonde

Source: (Savva et al., 2002)

Soil, vegetation and crop features

The soil, vegetation and crop features found in Buhera are outlined in Box 2 below.

Box 2: Buhera soil, vegetation, and crops

Soil type: Buhera soils are granitic in nature but tend to give rise to coarse grained sandy soils under low rainfall characteristics

Vegetation type: Buhera typically falls under the Save-Limpopo terrestrial ecoregion. Its vegetation is signified by interactions between trees and shrubs. The dominant tree type found in this region is the Acacia, which however grows scarcer in density as you progress along the north-southward belt of the District. There are also exceptions of tree species like the Mopane and Baobab trees.

Food crops grown: Maize (almost 100% of the farmers in Buhera North and approx. 50% of the farmers in Buhera South grow maize), Finger millet, Pearl millet, Sorghum

Cash crops grown (under irrigation): Cotton, Tobacco

Source: Author

Concluding the Buhera case study

As noted in this case study, Buhera is located in a dry area between perennial riverine systems, with an agro ecological condition that exposes it to situations of water distress and food insecurity. Intensifying hardships linked to the vagaries of the weather have resulted in complex conditions of hunger across Buhera South. The pervasive hunger has infiltrated all trophic levels of the food web, subsequently animals in the wild are also hungry as alerted by the growing reports of hyenas on the prowl during my research (see Image 9). Upon conducting an undersized investigation on the nature of hyenas, I learnt that they are a common carnivore in Africa that is reputable for being timid and cowardly. Hyenas naturally feed on the wild but on occasion attack humans, particularly when they are low on prey. Indeed, it could be that the recent hyena attacks can be seen as an indicator pointing to the severity of hunger across the spectrum of living organisms.

Image 9: Newspaper headlines indicating hyenas on the prowl in Buhera
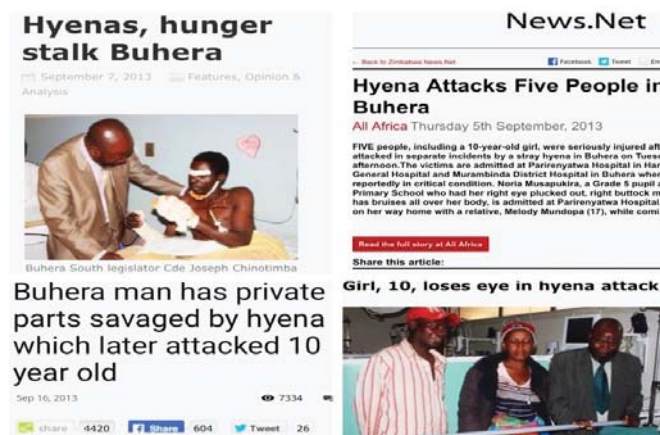
It therefore comes as no surprise that the District Administrator (DA) for Buhera, Mr. Roland Madondo, argued that Buhera South is not suitable for habitation (see Mapuranga, 2012). To strengthen his argument, the DA noted how the inhabitants of Buhera South have been without a good harvest since the 2000/1 crop season. That being so he considers it unfeasible for the government to provide food aid to the same people year in year out. As part of the resolution, he advocated that Buhera South be converted into a game reserve, and its people relocated to more habitable areas. This is a costly measure which he said would come with long term benefits. His argument is

partially supported by studies which have categorically declared AEZ V as appropriate only for extensive animal husbandry and not crop production (see Moyo et al., 1993).

Nyanga 'The buck horn'

> If you look at the map of the Inyanga district and follow the eastern boundary of Holdenby Tribal Trust Land northwards from the source of the Rwera River up past Mt. Tsuwe, you will come to a hill called Nyanga…It is called Nyanga because it has two little peaks on its summit which from a certain angle look like the horns of a small buck…[144]

Nyanga is a District located in the north eastern high veld of Manicaland Province. Unlike Buhera which is predominantly rural, Nyanga has several settlements which include commercial farms, resettlement areas and forestry plantations. This includes the urban component which is called Nyanga town. Part of Nyanga District is also a tourist resort area. Mount Inyangani which stands at an altitude of 2 592 metres above sea level, and is the highest mountain peak in Zimbabwe, is one of the tourist sites in Nyanga. In terms of its geographical positioning, Nyanga town is located about 115km north of Mutare the Provincial capital. Similar to Buhera, Nyanga is also surrounded by significant hydrological features on either side. On its north western borders, Nyanga is bounded by Rwenya River which flows southwards to meet Inyangombe River. At the lower levels of the eastern borderlines, the Honde River sits on the right banks of Pungwe River[145], and the Rwera River on the left. Also on these borderlines Nyanga is bounded by Gairezi River which meanders all the way up towards the northern lowlands. Chapatarongo, the precise case in point for this study sits in the not so distant proximity of the confluence of the Gairezi and Matize Rivers.

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[144] Petheram (1974)

[145] Pungwe River is an important water source for several areas both under Zimbabwe and Mozambique. A micro hydropower plant is situated on this river.

Box 3: The nomenclature of Nyanga

Nyanga is diverse in terms of its tribal affiliates. The Va Hwesa tribe are distinctive of Nyanga North, and the Va Unyama of Nyanga Central. The Va Manyika characterise Nyanga South, and varieties of the Va Barwe are found in both the North and the South. Compared to Buhera, Nyanga is not named after a singular predominant tribe. To demystify the question of its nomenclature, several accounts are told of the origins of its name, a typical example being one found in the extract inserted in the prologue of this chapter. This account reasons that, Nyanga was named after the summit of a hill which looked like the horns of a small buck. This is because in the Shona language, horns are called 'nyanga'.

Another story is also told of a reputable traditional healer of the Va Barwe tribe who lived at the foot of Mt. Nyanga. Thus he was named Sa Nyanga*. His name may have been derived from the name of the location 'Mt Nyanga'. But it may also have been derived from his profession, because in the Shona language a traditional healer is called, a 'n'anga' or 'inyanga' in the Zulu language spoken in parts of South Africa (as is with a few other Bantu languages). This traditional healer is said to have healed an influential chief called Mutasa who lived in Binga Guru, which is found in present day Mutasa South District, also in Manicaland Province. When SaNyanga healed Mutasa, it is said that in return he was given a District and the office of headmanship over that jurisdiction. Inevitably, the land was named after him and is what is presently known as Inyanga or Nyanga in short.

* 'Sa' is a prefix which is used in the Manyika dialect to refer to the males, in particular the heads of households. For instance if my father was Mr Nyandoro he would be known as Sa Nyandoro.

Physical Environment and Socioeconomic Factors

In contrast to Buhera, the story of Nyanga is often not preceded by woes of underdevelopment. Instead, stories are told that recount the enchanted beauty that caught even the eye of Cecil John Rhodes[146],

> *Dear McDonald, Inyanga is much finer than you described. I find a good many farms are being occupied. Before it is all gone, buy me quickly up to 100,000 acres, and be sure to take in the Pungwe Falls. I would like to try sheep and apple growing... Yrs. C.J Rhodes* (McCrea & Pinchuck, 2000, p. 286)

Nyanga's aesthetic endowments are characterised by escarpments ranging from an altitude of above 2000m in the Nyangani Mountain ranges falling to about 600m in the

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[146] Cecil John Rhodes was the founder of the British South Africa Company (BSAC), a colonial enterprise which in the 1800s was responsible for the colonisation of parts of Southern Africa. The enterprise had sought to exert its geopolitical influence from Cape to Cairo, that is, from the southern tip of Africa to its northern tip. The country Rhodesia, which is presently known as Zimbabwe, had been named after Cecil John Rhodes.

Gairezi river valley. The District is commonly branded for its scenery, geomorphic landscape, climate, forestry plantations, crop produce and water resources. However, in colonial times as is now, Nyanga North was almost entirely covered by rural areas formerly known as Tribal Trust Lands, while the South was predominantly European and State land which included a portion of Nyanga village - now Nyanga town (fig. 19).

Figure 19: The dissemination of Rural Area concentration in Nyanga (marked as TTL standing for Tribal Trust Lands)
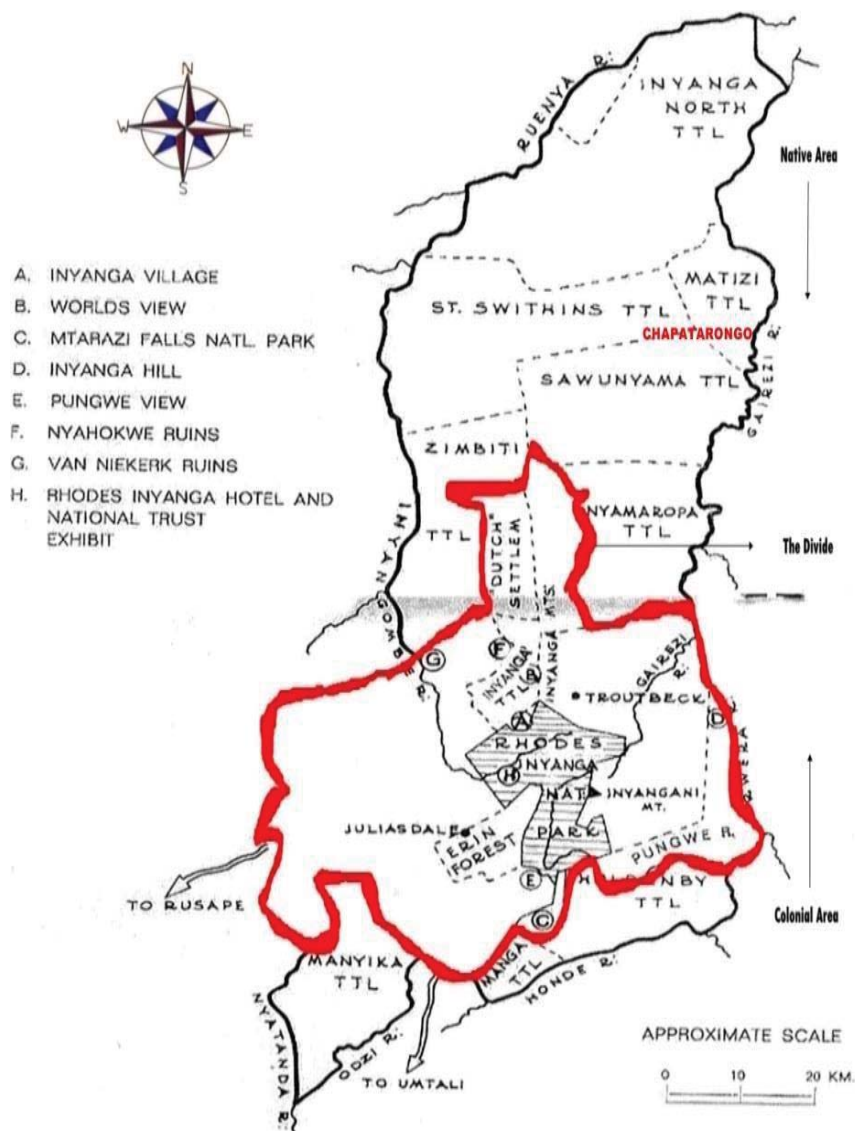
Adapted from Petheram (1974)

The potential for development in far northern settlement areas like Chapatarongo is low, due to remoteness. Again the settlement areas found in the north are considered

from an agricultural point of view as being poor owing to their subjectivity to severe dry spells as well as their unsuitability for rain fed maize production (Hall & Blench, 1998).

Altogether, archaeological evidence suggests a material poverty in throughout its known history[147]. The quality of the artefacts found here are said to have been indicative of the lifestyle of ordinary people,

> *Inyanga displays an extremely impoverished material culture – inadequately fired pottery, very few beads, hardly any iron and but a tiny scatter of copper ornaments* Summers (1970, p. 169)

In comparison, as previously note, the artefacts found in Buhera were said to be indicative of a high-born life (Lindahl & Matenga, 1995b). The presence of about 11 clusters of mini Great Zimbabwe ruins in Buhera could have meant that it was an important constituency of the Great Zimbabwe[148] (ibid). The same cannot be said for Nyanga whose archaeological evidence suggests it is totally unrelated to the Great Zimbabwe traditions. This implies the lack of relationship between cultures in these areas (Soper, 2006). Intriguingly however, John Sutton, cited in Kritzinger (2007), asked,

> *Are we to imagine that the farmers of Nyanga, both then and through the following centuries, were so busy developing their intensive subsistence system in their remote mountain fastnesses that they remained ignorant of what was happening all around? Or, alternatively, that they were only too conscious of the predatory habits of the kingdoms to their west that based at Great Zimbabwe as well as its tributaries, competitors and successors that they strove to insulate themselves from their tentacles?* (p. 11)

While Soper (2006) argues against suggestions that the stonework and artefacts found at Nyanga were unsophisticated, applauding also the Nyanganis for the vast terraces

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[147] The Nyanga area was considered to be of little economic importance based on geological and materialistic worth (Love & Walsh, 2009). But Nyanga was rich in raw materials, not material artistries and certainly not mineral resources. Alluvial gold deposits have since been discovered however in the north eastern Nyamukondeza Mountains and it is through these that the livelihoods of many people in my case study area are being supplemented (see Chapter 9).

[148] Great Zimbabwe was the capital city of the ancient Mutapa Empire, a city after which the country Zimbabwe obtained its name. The word Zimbabwe comes from the Shona word Dzimbahwe meaning houses of stone. The elaborate Iron Age stone houses were built without mortar.

which they built upon high altitude, many studies are unmoved by the industriousness of the Nyanganis and dismiss primordial Nyanga as being poor. On the size and quality of the clay pots found in Nyanga, Summers (1970) argued that anyone familiar with Bantu life would appreciate what is implied by the depth of this poverty. For pottery was central to ceremonial customs of the Shona people[149]. As the years progressed however, Nyanga's aesthetic beauty, favourable climate and agro-viability enticed colonial settlers[150]. The settlers established a tourist town, and variant settlement patterns, including road networks linking key places (Stocklmayer, 1978)[151]. Yet still, there are parts of Nyanga that remained under developed, and these are the Nyanga lowlands where many of the rural areas are located[152]. Indeed, these areas are constant recipients of food aid, as illustrated in image 10.

Image 10: Food aid being given at Chatindo in Nyanga

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[149] As an example, in the Shona custom, pottery was used for preparing beer for rainmaking ceremonies.

[150] Also as the years progressed, Buhera on the other hand lost its materialistic wealth, and its advantageous proximity to the Great Zimbabwe was also relinquished. Certainly Buhera had nothing to offer the white settlers, and hence it was never developed.

[151] I struggle with Stocklmayer's remarks on the colonial settlers' establishment of a road network, as they seem to discredit the actual manpower. Growing up, my father persistently told a story of the construction of a road. In the story, the road constructors were native men. Among the constructors was my maternal great grandfather. The road constructed was a twisting and winding road up an altitude of about 1600m descending into the Honde Valley; that is a location on the south eastern side of Nyanga. Up in the mountainous ranges, caught between slope and depression, the native men constructed this road.

[152] Nyanga has an urban population of 5.2 % as compared to 94.8% rural population (ZIMSTAT, 2012). On paper, Nyanga seems to be just as rural as Buhera except that it has a variety of other settlement patterns that are distinctive as compared to Buhera.

Demographic Characteristics

Nyanga is made up of 31 administrative wards and is divided into Nyanga North and Nyanga South. Falling under the jurisdiction of Chief Katerere, Chapatarongo, also known as Nyamasara (ward 5), is located in Nyanga North.

Population	
District Population	125 599 (52% women, 48% men)
Ward 30 Population	5 987 (52% women, 48% men)

Source: (ZIMSTAT, 2012)

Hydrology

As established in the prologue, Nyanga has a substantial number of hydrological features. The crucial ones in the northern lowlands being Rwenya to the west, Matize in the central parts, and Gairezi to the east. Matize is a noteworthy tributary of the Gairezi River, for it plays a pivotal role in the livelihoods of the people in ward 5. As will be seen from their narratives, some men and women walk up to 4km to get to Matize and some, for failing to quantify the distance, walk at least 6 hours to get there. Matize is the hub of their day to day living. Despite the water shortages in the drier pockets of the Nyanga lowlands, it is not uncommon however for Nyanga Rivers to be oversaturated in the wet season. Participants' collective memories attest to this fact. In their narratives, participants alluded to time frames based on seasonal highlights. As an example, a woman had spoken of '*gore raenda Chisero*'. That is, the year that Mr. Chisero was swept away by a flooded river. I also personally witnessed some flooding events during my field visits in Nyanga (see images 11, 12).

Image 11: Washed away bridge at Rwenya River, pre-field work visit, December 2012

Image 12: Picture of a road inundated by water, field work, December 2013 (we had to wait for water to subside before proceeding on our way)

Dams and Irrigation Systems in Nyanga

Nyanga has 51 dams with a capacity of 9 956m³ (Sugunan, 1997). However it cannot be ascertained how many of the dams are available to the rural population. What is known is that the dams are distributed among the various settlement areas (commercial farms, forestry plantations, national parks and recreation sites) found in Nyanga. Nyanga also has several irrigation schemes, but none of these are situated in ward 5. The most notable irrigation schemes in Nyanga North are Nyakomba in ward 11 (451 ha) with 528 beneficiaries and Nyamaropa in ward 12 (571 ha) with 545 beneficiaries[153]. Participants from ward 5 reported walking long distances to Nyamaropa and Nyakomba to exchange their labour for food.

Underground water sources

There is currently no comprehensive study that focuses on water points in Nyanga. I was nonetheless able to work with data from a 2011 government report to draw out some information (see Table 17). Disregarding the non-functional water points, the overall number of water points serving the population of 60 979 in Nyanga North is 449. Narrowed down to ward level, in ward 5, the total number of functional water points serving a population of 5987 is 28. Following this last figure, the approximate ratio for functional boreholes alone is 315 persons per borehole. In as much as this is what is

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[153] Other irrigation schemes available to the rural population in Nyanga but on a minor scale are Ruwangwe with just 2.2 ha and Nyatsanza with 12.1 ha (see Chibisa et al., 2008).

noted, the ratio is only illustrative since in reality, water points are distributed per village.

Table 17: Distribution of water points by ward in Nyanga North

Ward	Boreholes	Functional Boreholes	Deep Wells	Total # Water points	Population	# Households
1	21	8	12	33	4924	1115
2	32	28	16	48	5312	1256
3	29	19	27	56	6132	1478
4	36	30	39	75	7975	1978
5	23	19	9	32	5987	1340
6	18	11	47	65	3913	966
7	20	11	27	47	4383	1068
8	18	11	19	37	3319	850
9	12	10	27	39	5412	1342
10	22	15	20	42	3334	874
11	14	8	7	21	3299	912
12	18	14	1	19	4438	1071
13	8	8	6	14	2551	598
Total	271	192	257	528	60979	1484

Adapted from GOZ (2011)

Altogether, the available information does not paint a picture of the water allocation set up at this level. From fieldwork experience, some villages in Nyanga do not have a single water point, while others access water on a rotational basis. The following is what one man participant had said to describe the water situation,

> *Here in Kambarami there is no community borehole. The whole village shares a borehole with Chapatarongo Secondary School. This school borehole was built in 1958 before I was even born* [SSI, man, Nyanga]

Soil, vegetation and crop features

I sum up the soil, vegetation and crop features found in Nyanga in Box 4 below.

Box 4: Nyanga soil, vegetation and crop features

Soil type: Nyanga soils are diverse, as they are based also on the varying conditions of geology, topography and climate The Nyanga lowlands are particularly characterised by variations of sandy clay to clay loams which are moderately shallow to deep.

Vegetation type: Nyanga predominantly falls in the Eastern Highlands ecoregion. Since it encompasses characteristics from all agro-ecological zones, it would also make sense to say that it has traits from other ecoregions. For instance, the north-eastern parts of the District exude semblances with the Zambezi ecoregion. The tree species found in this region are mixed woodlands comprised of Miombo and Mopane trees. Though atypical in regions of high terrain the Baobab tree is not an uncommon feature of Nyanga North.

Food crops grown: Maize thrives well in the Nyanga highlands, but not as well in the Nyanga lowland areas like Chapatarongo. Small grains such as millet and sorghum are therefore grown alongside maize in the Nyanga lowlands.

Cash crops grown: The agriculturally viable portions of the Nyanga highlands are used for specialised and diversified farming and produce crop varieties ranging from potatoes, peas, soya beans, sugar beans, coffee, tea, cotton, groundnuts, paprika, red chillies, vegetables and a variety of deciduous fruits. Timber based forestry is also a significant feature of these areas.

* As a general rule, 1700m is the ceiling level for the cultivation of traditional grains such as maize. Owing to topography, some portions of the Nyanga highlands are not suitable for crop production. This is in spite of the favourable agro climate and fertile soils in this region.

Source: Author

Explaining Nyanga's diverse cropping patterns

To explain the differences in cropping patterns seen across the Nyanga District, altitude differences have a huge bearing on the inconsistent rainfall, temperature and soil characteristics across the Eastern highlands. The soils of the higher terrains are more fertile, while those of the lowlands and valleys are sandy and less fertile (Soper, 2006). Lower temperatures and higher rainfall characterise the higher terrains, and higher temperatures and lower rainfall, the lower terrains (Childes & Mundy, 1998).

Zeroing in on rainfall patterns to paint a clearer image of the differences, the Nyanga Mountain ranges receive annual rainfall that is above 1200mm, whereas areas to the

west of the Nyanga Mountains fall within a rain shadow area, and generally receive rainfall quantities that do not exceed 800mm (Stocklmayer, 1978). The southern parts of Nyanga receive annual rainfall between 750-1200mm, while, areas further north receive annual rainfall between 450 to 600mm (Hall & Blench, 1998). Also worth noting is a stretch along the north eastern belt which falls under region V (i.e. Chapatarongo). This is a region known to receive annual rainfall that is lower than 450mm. The irregularity of climatic patterns is so dramatic, yet the Nyanga climate is often generalised.

Concluding the Nyanga case study

As evidenced in this chapter, in comparison to Buhera, Nyanga is diverse in terms of its agro-ecology, geomorphic landforms, settlement patterns, and tribal composition. Also in comparison to Buhera, Nyanga is popularly known for its agro viability, although this tends to mask the not so agriculturally viable areas like Chapatarongo. Although not given much attention, these marginal areas (locational context) have people that depend on food aid, just as in Buhera. The political economy of hunger is therefore a commonality shared by many rural areas in Zimbabwe, and is a congruence that can be partially attributed to the colonial history.

I am further convinced that, also as a result of being subjected to the Zimbabwean context of crisis (situational context), rural communities are conjoint by a similar measure of hardship. Therefore whether one is in Buhera or Nyanga, there may be found some degree of shared experiences across the board. This is of course with exceptions in the nature and extent of socioeconomic and biophysical influences. These commonalities and differences will be explored further in the remainder of this thesis.

Part Three

Rural people and the depletion of the Commons

In the sections that follow, I take note of the ecological crisis that characterises the rural areas of Zimbabwe with the aim of showing how this also has a bearing on their vulnerability. As an example, an estimated 2.6 million tonnes of soil is eroded per annum in Buhera alone (Mvumi et al., 1998). When combined into the national average Nkala (1996) found that an estimated 40-50 tonnes of soil per ha are lost from communal areas each year. Meanwhile, stripped off of its nutritional value, the soil remaining on the land ceases to be productive.[154] In other cases, gullies are left on the land as scars of erosion. Problems of soil erosion and land degradation are key contributors to the deterioration of economies and livelihoods of rural people (Mambo & Archer, 2007; Probert et al., 1993). At the same time, Zimbabwe faces a major deforestation problem predominantly in the communal lands (Maposa et al., 2010; Rukuni, 1994; Sayce, 1987). A 50% decline in woodland cover was recorded in rural areas between 1963 and 1978 (Mlambo & Huizing, 2004). While between 1981-1983 a total decline of 10.1 % was also recorded (Chenje et al., 1998). Also as early as the 1980s Sayce (1987, p. 146) had speculated that in some areas, notably the Save River Valley,[155] virtually all tree cover had been removed. Although not wishing to spell out absolute doom, the depletion of Commons does to an extent create a 'futility of escape[156]. For as Lopes (1996) suggests,

> *Both land degradation and the removal of forest cover affect water holding capacities, the recharge of the underground water resources and frequently threaten the lives of water courses. The unavailability of water in turn inhibits the development of agriculture and the eradication of poverty which is a main constraint to the reduction of land degradation* (p. 64).

I postulate further that 'futility of escape', represents the subdued escape from the tragedy of the Commons. Escape from poverty, escape from hunger, and escape from vulnerability to concurrent environmental shocks.

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[154] Resource poor farmers in rural areas seldom have the money to invest in fertilisers to supplement the nutritional value of the soil therefore soil fertility is lost.
[155] Buhera South falls within the Save River Valley.
[156] Futility of escape is a concept borrowed from Hardin (1968).

Natural Resource Management in Zimbabwe Prior to Colonisation

The general claim is that colonialism undermined the traditional management systems of NRs in Zimbabwe (Mutikani et al., 2002). It is argued that the colonially induced individualisation of village life turned native people into agents of self, showing little regard for CPRs[157]. According to Dore (2001), several Western scholars have disputed these allegations claiming that, if traditional practices of resource management existed at all, they were loosely defined and were later organized and reinforced by the British. However, centralised forms of environmental regulation were only produced by the colonial government due to the growing ecological crisis in the native lands (Madondo, 2000). This was a result of population pressure on already marginal lands[158]. Subsequently, the first concerns of soil erosion arose 40 years into colonial rule, that is, in 1929. A year after this, the first ever environmental law in former Rhodesia – the Natural Resources Act of 1930 – was passed (Lopes, 1996). Post settler ecological challenges are supported also by Chimhowu and Woodhouse (2006) who say,

> *Concerns about low productivity in African farming, and evidence of poverty and land degradation in many rural areas in the 1930s, brought an increasing challenge*…(p. 350)

Hence by the end of the 1930s it had become common knowledge that the native reserves were in a full blown ecological crisis (Cliffe, 1988). It could be argued that there was no record of an ecological crisis prior to colonisation because there was less population pressure on resources then[159], yet sufficient evidence also suggests that this was because of the native conservationist practices. Also in support of this view, Chiwandamira (2000) draws attention to a strict indigenous code of conduct for Natural Resource Management (NRM). It is that sort of code that venerates sacredness, and is based on mysticism and eerie consequences - the very kind that the colonisers often

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[157] Writing about the Zimbabwean traditional set-up Latham (2005, p. 12), clarifies that, on one hand the traditional African model was rooted in African Holism, defined as a kinship system embedded in a religion with an ecological ontology. On the other hand, the Western worldviews introduced in the twentieth century were rooted in rational, reductionist science, individualism and a colonial 'mission'.

[158] In Chapters 1, 6 and in earlier sections of this chapter it was shown that the native majority was relegated onto marginal lands, while the white minority took too themselves the best land.

[159] Population estimates at the turn of the 19th century suggest a total population for the country of a less than a million people (Latham, 2005).

found to be melodramatic and barbaric. To stop me from proceeding on this path of mythology is the voice of Patricia McFadden who so often argues against the romanticised history of an egalitarian and communal pre-colonial African society. McFadden says that this history is frequently used as a form of escapism by the former colonised to fantasize about precolonial times[160]. Dore (2001) nonetheless maintains that native conservation practices survived colonialism somewhat intact. Mehretu and Mutambirwa (2006) agree but add that increasing population pressure in the rural areas has often been too overwhelming for traditional solutions.

Natural Resource Management Post-Independence

Zimbabwe has continued to engage several legislative and non-legislative solutions to deal with the depletion of NRs even after independence[161]. Focusing on the latter, worth noting is the 'bottom-up' District Environmental Action Planning programme (DEAP) of 1994[162]. The government had instituted this programme to serve as a conduit for the implementation of Zimbabwe's National Conservation Strategy and as a national response to the United Nations Conference on Environment and Development's (UNCED) blueprint for sustainable development, Agenda 21 (Manjengwa, 2007). DEAP was thus initiated to empower local communities to plan and to make informed decisions on human and natural resource needs. Manjengwa stresses however that there have so far been no indications that DEAP has had any significant impact on alleviating poverty or increasing environmental quality. She attributes this to the weak

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[160] Patricia McFadden is a Swazi born academic and radical African feminist (see Chapter 5) who I met over a cup of tea in Zimbabwe when I was barely in my 20s. I met her through a Zimbabwean academic called Iris Shiripinda who was working as a lecturer at a Netherlands university at the time. Curiously, I had met Iris Shiripinda at a hair salon. Together, the two women informed my initial understandings of what it meant to be an educated African woman in a society where women were never really encouraged to excel in their studies. Since then I have aspired to follow in their footsteps through contributing to knowledge as an African woman in the academia.

[161] Legislative tools include the Atmospheric Pollution Prevention Act (1971), Water Act (1976), and the Environmental Management Act (2002).

[162] The Communal Areas Management Programme for Indigenous Resources (CAMPFIRE) was another process instituted for managing the Commons in rural Zimbabwe (Harrison et al., 2014). The program entails the transfer of ownership of wildlife resources to communities. However, despite CAMPFIRE's celebrated success it is worth noting that, the government did not wholly grant communities ownership over the program. Community members are not given managerial posts and are not planning partners, neither are they involved at all levels of decision making (Mohamed-Katerere, 2011). In addition, since 2003, CAMPFIRE has suffered a series of setbacks, mainly as aggravated by the looming economic crisis, political instability and unfavourable macro-policy changes (Chimhowu, 2009).

implementation of what was meant to be a bottom up approach but was instead a top down approach that resulted in a low impact on the ground. If at all, the environment continues to be degraded, and poor people are getting poorer.

The normalisation and perpetuation of the ecological crisis

In light of what has so far been argued, it is apparent that the ecological crisis in rural areas goes beyond the limit of the extant time frame, for it has roots in the colonial era. Therefore for the sake of advancing the debate in this section, I divide the ecological crisis into a historical and current crisis. In lieu of the historical crisis, I have every reason to believe that a level of normalisation of crisis may have occurred. Normalisation of crisis is not peculiar in environments where people's daily lives are typified by permanent emergency. Based on Anderson (1968), under such circumstances, it is possible for communities to culturally adapt[163] to threats. For when threats become too familiar this results in a break in the continuity of expectation and the emergent pattern causes,

> [*the] amalgamation of the known and familiar with the unknown and unfamiliar through processes of assimilation and accommodation* (p. 299)

The processes of routinization and normalisation used in this regard resonate with the culture of apathy propounded by Douglas (2004), which is where poor people fall into the perfunctoriness of and familiarity with their situations. From a hazard perspective, Bankoff (2001) notes that, the more the threat is perceived as chronic, the greater its conception and integration as a 'normal' experience. The now normalised state is then communicated as part of that community's ordinary lifestyle. In the case of Zimbabwe, this is why I generally believe that, the rural communities along with the State may have well normalised the historical ecological crises. For it appears that the present day is characterised more by a current crisis that is underlined by perceived notions of environmental change of climatic as opposed to of edaphic form (influenced by the soil rather than the climate).

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[163] There is a difference between cultural adaptation and adaptation to environmental change. The first entails integrating certain phenomena into one's culture. And the second is a resilience approach that entails responding to undesirable change through making certain adjustments in the way of living.

Through normalisation, the rural people are contributing further to the worsening of the historical ecological crisis. This however is not unusual, because from a deductive standpoint, poor farmers may continue to reduce the quality and quantity of land so as to maintain the longevity of their livelihoods (WorldBank, 2008). Reardon (1993) adds that, due to limited options poor farmers may exceed the ceiling of the land capability to sustain life (Bryant & Bailey, 1997). Increased farming on already marginalised lands not only results in the further deterioration of the land, but accelerates the poverty of both the farmer and the land (Davidson, 1993). This is a vicious cycle that will continuously taunt the almost unsuspecting farmer. The cycle is a poverty trap for the farmer, who through labour intensification on already degraded land, reduces its quality and quantity to increase his current consumption, much to the detriment of his future consumption (WorldBank, 2008) .

However, aside from the worsened ecological crisis due to normalisation, the deterioration of the economy over the past 15 years also has a bearing on the historical ecological crisis (Manjengwa, 2012). This suggests a strong correlation between the economic collapse and the continued depletion of customary land including the Commons. Due to the economic crisis, Manjengwa affirms that more Zimbabweans now rely on NRs for survival than before. Feresu (2010) also argues that now, more than ever, people are exploiting the environment in unsustainable ways. To explain why this is so, Chimhowu (2009) found that in the context of a collapsed economy, central government policy on the environment has had very little meaning. The economic crisis has led to the invisibility of the State apparatus responsible for environmental legislation. In a chain reaction, the absence of the recognised faces of enforcement has created a vacuum that has been exploited by those acting out of desperation alongside those seeking to exploit natural goods out of greed. Chagutah (2010) reinforces Chimhowu's views, noting the impacts of the economic collapse, including reduced accountability and inconsistencies in enforcement of environmental legislation. Chimhowu further reveals how political violence and insecurity in some rural areas has made the enforcement of environmental legislation irregular. In such environments he notes,

Well-meaning civil servants…found it impossible to enforce law, as often the political environment created insecurity to persons and property (pp. 69,70)

On balance, Manjengwa (2012) argues that in the context of a collapsed economy, rural people have further disregarded traditional rules of conservation. In fact, she says, the historical reverence for the environment is in this context only theoretical. Poverty has become the decisive factor and is leading people to dive off the moral cliff[164]. To sum the scenarios up, I bring Cliffe (1988) back to the discussion. In his earlier study on the ecological crisis in rural Zimbabwe, he questioned why ameliorative strategies were merely legislative, having very little to do with the underlying conditions of society. He asked how there could be talk of conservation without reference to the problem of poverty (p. 56)[165]. In other words, he asked how complex situations could be addressed, if causation was disregarded. This is a crucial question, especially now that we see that a measure of blame for the depletion of the Commons can be attributed to past as well as present poverty[166].

Marginalisation Theory of Vulnerability

The concept of marginalisation has been mentioned several times throughout this chapter. It is a concept that follows the neo-classical notion of 'margin' that is awarded to plant philosophy. In political ecology terms, a margin may refer to an area or zone for plants within which there is expected killing stress, but over which a plant or plant association can expand when that stress is absent (Blaikie & Brookfield, 1987). In political ecology, marginality can be attached also to space, for example, in Chapter 3 it

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[164] The ecological crisis in the rural areas mirrors the 2 Syndromes of Global Change submitted by Schellnhuber et al. (1997) in Chapter 2. These are the Sahel Syndrome (over-use of marginal land) and the Rural Exodus Syndrome (degradation of natural resources due to the abandonment of traditional agricultural practices). The situation of resource neglect as strengthened by the collapsed economy, further reflects the social disorganisation also observed by Prince (1920) after the Halifax explosion of 1917 (see Chapter 2). The scenarios confirm the supposition by conflict theorist, Harriet Martineau, that social problems often contradict society's values. For, in 'abnormal' times society's actions are often quite different from the values expressed by that society in normal times.

[165] The Chavhunduka land Commission of 1982, also advised the State to consider first the root cause of land degradation in communal lands, before addressing the issue of land shortage.

[166] Other theories attempting to explain the poverty-environment relationship include the economic hypothesis called the Kuznets curve. This theory surmises that environmental quality is linked to income. It therefore implies that the richer the society, the less environmental degradation. Conversely, the poorer the society is the more environmental harm it is thought to produce. However, to contest its premise, economic growth comes with its own seeds of destruction, particularly if achieved at the expense of environmental quality and social equality (Liu, 2012).

was said that marginality of space can be a result of poor topographical, climatic, edaphic (soils) and vegetation qualities of space which give rise to vulnerable populations. In political economic terms however, marginalisation entails a continual process of impoverishment based on a political economy of unequal exchange which if unbroken gives rise to vulnerable populations. Thus in political economic terms, marginality has to do with hindered access to economic and political structures (Wisner et al., 2004). But be it spatial or socioeconomic marginality, marginal people are found on the margins as a result of marginalisation. In order to explain marginalisation and vulnerability in the context of development and environmental change, Susman et al. (1983) (see fig. 20), argue that within a context of exploitation and appropriation, a certain group of people is pushed to the limits of space. While on these perimeters, the group interacts with the physical environment in ways that increase the physical degradation of the land as well as the people's own vulnerability. This increases risk to concurrent hazards as well as the severity of their impacts (also see Wisner, 1993).

Figure 20: Marginalization Theory of Vulnerability
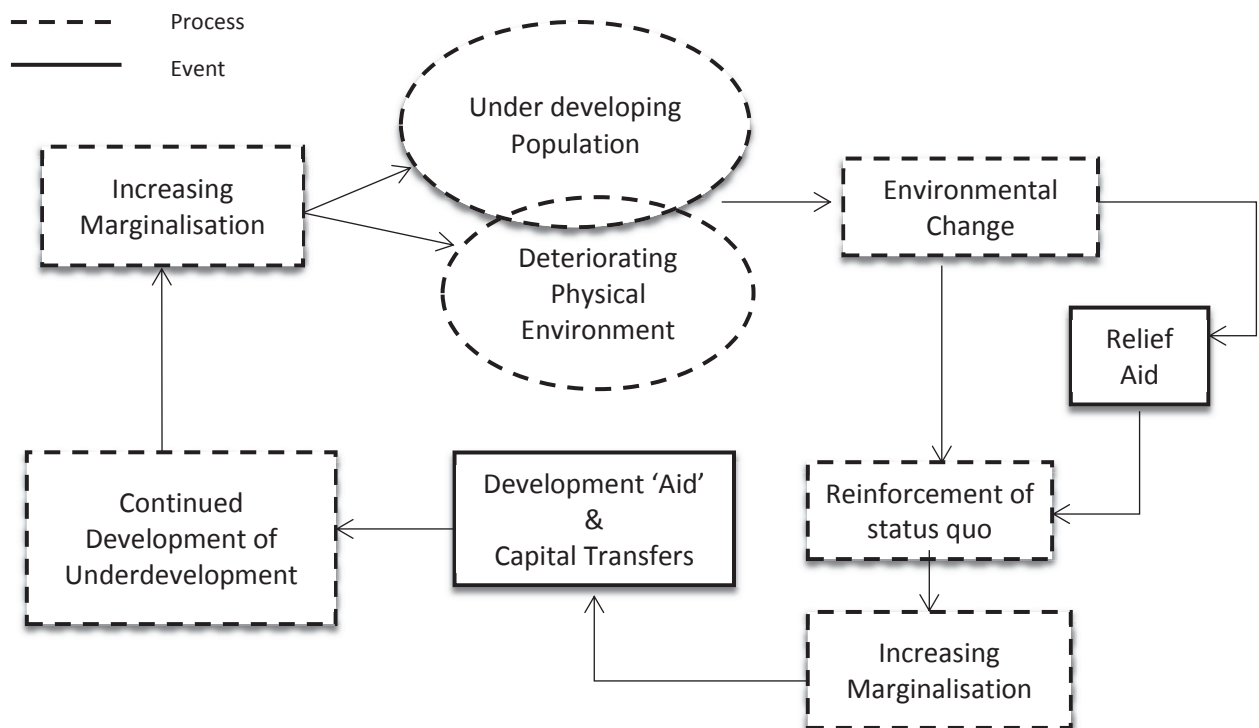
Adapted from Susman et al. (1983)

According to the model of marginality, when marginal people are met with complementing or concurrent environmental changes, they often fail to cope. This frequently translates into humanitarian situations calling for relief and aid. But, in the event of intervention, parts of the benefits for recovery may be misplaced. In my interpretation of the model I cite two possible causes of misplacement. The first being where the benefits may be intercepted by elite interests, both within or without the communal precincts, and the second being where benefits may reach the communities but fail to reach all of the affected.

Depending on nature of recovery, aid beneficiaries are generally nominated using selective or non-discriminatory approaches (see Mendelson & Glenn, 2002). The first are strategies that restrict assistance to beneficiaries that meet a specified criterion of eligibility. While the second aims to spread the benefits of aid to all beneficiaries (ibid). In my view, it is less objectionable when proactive led (development aid) programmes are selective in nature, and responsive (relief) programmes, non-discriminatory. This does not seem to be the case in Zimbabwe, where selective targeting seems to indiscriminately apply. While this is a matter that is open to debate, what is most apparent is that selective targeting can be discriminatory to unintended beneficiaries who in relief cases may not fully understand the reasons for being omitted from a donor programme. Coupled with the two cases of misplaced aid, at the end of intervention cycles, recovery groups exit the community, and marginal people often remain marginal, and the vulnerable, vulnerable.

The next chapter will present the findings of the study addressing these questions in the context of the case study areas discussed in this chapter.

Chapter 8: Experiences of Environmental Change and Perceptions of Causality

Introduction

Chapters 1, 4, 6 and 7 demonstrate that the rural areas in Zimbabwe are localities, marginal not only in the sense of localisation, but also in the aggregate quality of life. Thus the socio-economic-political-ecological conditions highlighted of rural Zimbabwe point to a population that is susceptible to many risks, natural and social. Let me further this reflection by describing findings taken rather arbitralirly from the book 'Risk' by Lupton (2013). In it, she reviewed the history of life in medieval France as depicted by Robert Muchembled (1985)[167]. The most relatable of the environmental changes noted in this depiction included extreme weather events, food crises and health crises. As a result, grain production was vulnerable to the vicissitudes of the weather, epidemics were rife and death was on display everywhere to the point of banality[168]. The overall image presented of medieval France, was that of the disintegration of sustaining systems, regulative systems and reproductive systems as shall also be seen in this chapter. Given this, the first part of this chapter will report key findings that seek to answer research question one,

> ***RQ1***   ***What experiences of environmental change have been the most critical in the lives of rural men and wome*n?**

The second part of the chapter will address research question two,

> ***RQ2***   ***What do rural men and women perceive to be the causes of environmental change?***

While the main aim of this chapter is to recount the experiences of environmental change as narrated first hand by the participants, occasionally, external voices will be

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[167] Robert Muchembled described the period 1400-1750, a time where the rural world made up more than nine tenths of the French population. This period is described by Muchembled as the 'gothic' shades of the Middle Ages bearing slightly less inhuman conditions.

[168]As is also the case with this current study, peasants were additionally faced with threats from wild animals that were attacking and eating small children as a result of extreme hunger that was infiltrating all eutrophic levels. In medieval France peasants faced the problem of wolves, wild dogs, including wild pigs. In present day Zimbabwe, in particular Buhera peasants face the problem of hyenas (see Chapter 7).

introduced that either reinforce participant claims, or elucidate participant claims. Examples of external voices that will be featured include, peer reviewed academic publications and reports from development organisations that speak from a practitioner standpoint. Even so, focus will remain on participant voices as it is their voices that matter most in this study.

I will also clarify that, the terminology used by participants to refer to the same things varied. Typical examples of the most recurring terms that came up, for instance, under physical changes were, 'there is no rain', 'there is little rain' or 'it is not raining enough'. As part of thematic analysis's tradition of grouping recurring themes, I clustered the changes according to their nature and these were used as the headings in the chapter, and in answering RQ 1 and RQ 2 the chapter is arranged as Part one and Part two.

Part One

Physical Change

Physical changes affect people through a subset of events that impact directly on the things that they value (Stern, 1992). From what was revealed in Chapter 4, among the things that rural people value, are their natural capital (soil, water etc.) and physical capital (plants, livestock etc.). As physical changes are gradually felt and experienced; people begin to psychologically process the condition of their surroundings, and of the things that they value. With an exception of a few, much of the descriptions of physical change given by the participants denote variability in the climate.

Changing rain patterns

One of the key physical changes of concern was the idea of little or no rain,

> *We plant crops as usual but because of little rains, plant growth is being affected and we are getting poor yields* [SSI, woman, Nyanga]

To the rain fed farmers whose livelihoods are dependent on climate sensitive resources, insufficient rains have presented a great deal of mystery and uncertainty,

> *Each year we now go into the fields just to try our luck [FGD, man, Buhera]*

From participant narratives, the shortage of rain seemed dire. Yet during one occasion in December as I participated in a community gathering in Chapatarongo (Nyanga), we were interrupted over the afternoon by large bouts of rain. We had started off the gathering at about mid-day at *Sabhuku* Nechigana's homestead, but barely 30 minutes into the session, what had started off as a drizzle, had turned into an uncontrollable downpour. We then had to relocate to Sachiwo Primary School, where we sought cover under the shelter of a classroom. The images below show the discussion underway at Sabhuku Nechigana's homestead, but with clouds forming in the background. The images further below also show the discussion repositioned at Sachiwo Primary School.

Image 13: Community gathering at Chapatarongo

From my 'outsider' view of that particular moment, the falling rain appeared to be in contradiction with the testimonies presented by the men and women of Chapatarongo. To clarify, I asked,

> *You say there is no rain?*
> *But it is raining as we speak,*

A convincing answer was given by a woman, who said,

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The rains are inconsistent. It may rain today but be dry in successive weeks. [FGD, woman, Nyanga]

Also in Nyanga, another female participant had shared her story regarding poor rain,

The rainfall problem that we are experiencing has gradually worsened over the years. As I recall, the year that Chisero went was the last that we received an astronomical harvest [Woman, SSI, Nyanga]

When I had asked who Chisero was and how his 'departure' had any links with the rainfall problem, the woman had explained further,

Chisero was my neighbour who was swept away by flooded Matize River. I remember this occurrence very well because I had just given birth to my son Walter, and I was at home nursing him when all of a sudden I heard people calling out for my husband saying, 'Sa Gandiwa woye, huyai neku kasika Chisero watorwa nge mvura' (Mr Gandiwa, come quick, Chisero has been swept away by the river). The year was 1985. To date we have not had a comparable harvest to the one we experienced in that crop season. For nowadays, the rains have been very inconsistent. At times, it can even rain too much within a short space of time and our crops are destroyed by the incessant rains. But most times, our crops wilt due to not having enough rain.

Narratives of rainfall inconsistences and shortages were common also among participants in Buhera. I cite one Buhera man, who had disclosed that the poor rain was affecting his farming livelihood based on animal husbandry,

Due to little rains there has been less pasture and many streams are dry. I personally bought 8 cows which have been dying one after the other [SSI, man, Buhera]

Similar sentiments were shared also by another Buhera man,

For many years now I have grown and fattened my cows for marketing to the middlemen who buy on behalf of abattoirs, but this has become increasingly

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difficult because of poor rain. The rivers are dry and the pastures are low. This makes it harder for me to reach the optimum grade required for my cows to be bought [Man, SSI, Buhera]

The same man had shared his wife's experience with weather changes which include poor rainfall,

My wife's broilers have suffered too. Some have died from heat stress, and others have died from circulating poultry diseases like chikosoro (bird flu) and denda re matosi (bird dropping disease). The extension officers told us that these diseases spread faster under high heat and low rainfall conditions.

Seasonal shifts

The variability in rainfall has occasioned late rains and a short growing season. According to participant narratives, traditionally, mid-October marked the onset of the rains and commencement of land preparation. Official planting began in November, followed by harvesting in April. Staple grains such as maize, millet (*mhunga*) and sorghum are some of the major crops grown in the normal rainfall months (see Image 14).

Image 14: Cropping patterns drafted for my study by my RAs in Gunura based on seasonal calendar done by community
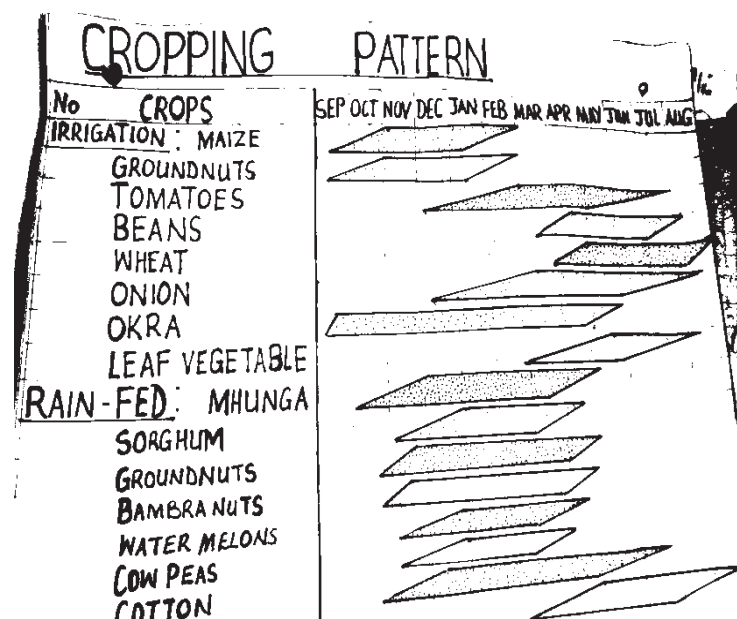
Source: Author

Contrary to the traditional rainfall months the participants had said that the first rains were now experienced in November, and even as late as December,

This year in our area we started planting around the 14th of December because this is when we experienced the first rains. Also now January is usually the month with the most rains. By the time we get to February, the rains would have declined [SSI, man, Nyanga]

Most times we plant crops assuming that it is the right time to plant, but with delayed rains our crops wilt. When the rains finally arrive, we plant again hoping to get something. However this is not always possible as we sometimes do not have leftover seed, let alone the money to buy new seed [SSI, woman, Buhera]

Data from seasonal calendars assembled as part of PRA activities in Buhera and Nyanga also highlighted a rainfall season starting in November, ending in February.

Table 18: Rainfall and Temperature Trends
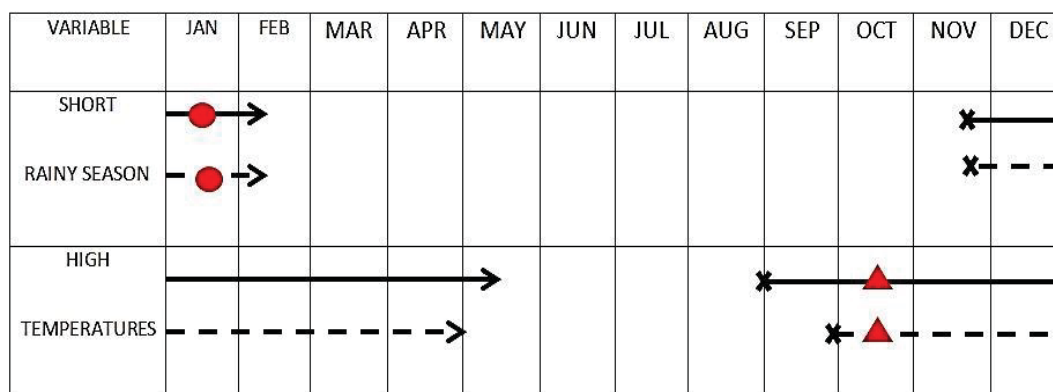
Source: Author

Incidence of late rains and a short growing season are noted in various studies (see Moyo et al., 2012; Mubaya et al., 2012; Zvigadza et al., 2010). Of these studies, Moyo et al. (2012) who investigate farmer perceptions of weather changes relative to climatological data obtained results that are closely comparable to mine. In their findings, they indicated the growing menace of hunger caused by rainfall delays and

poor distribution of rainfall throughout the rainy season. Also based on farmer perceptions, their study revealed that the onset of rains had shifted from October to the end of November and at times early December; with more rain falling in the month of January (p. 322). Finally, their study noted that some farmers had experienced rains in June (p. 323), which is highly anomalous because the winter period in Zimbabwe is dry.

Temperature increases

Participants also complained of temperature increases,

> *The changes around us are now more distinguished, and we can tell that it has become hotter than usual* [FGD, man, Nyanga]

Given this response, I was again prompted to probe further, and so I asked,

> *But isn't this part of Nyanga naturally hot?*

The same man responded through saying,

> *Compared to its surrounding areas, this area is naturally warm but now it has become warmer in a rather unusual way.*

Participants felt that the temperature increases signalled a drought. Intensely vivid stories recounting horrors of drought had been shared by some participants,

> *The drought has caused some of us in the Hwesa to dig up makuri (tree roots) to consume as food. Before being eaten, the roots are put in sacks and soaked in the river, dried and ground to extract a powder that is cooked as porridge. Not everyone can tell edible and inedible roots apart, as a result some people have died due to poor judgement* [Group of women, Buseta Village, Chapatarongo]

Mechanisms used to cope with drought are listed throughout, but will be featured most in the section on coping mechanisms in Chapter 9. On the virulence of the drought, while the Nyanga participants had mainly decried the unbearable drought induced heat, the Buhera participants had felt that the drought they experienced in 2013 had become one protracted drought lingering since the 2001/2002 drought (See image 15).

The notion raised by the Buhera participants of a persistent drought post the 2000 crop season resonates with the words spoken by the Buhera DA in Chapter 7. Ironically, the year 2000 was also the year of the land reform (see Chapter 6). Hence a nexus is often argued by scholars between the post 2000 droughts characterised by historic failures in crop production and the land reform.

Image 15: Timeline drawn during a timeline exercise in Gunura
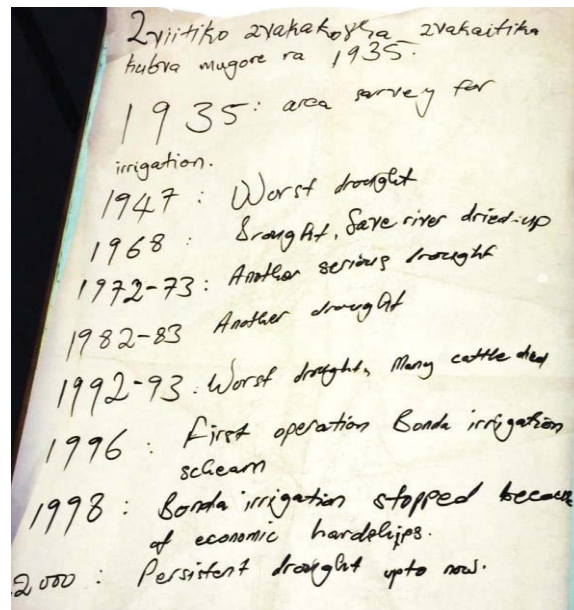
Source: Author

As regards the effects of the drought induced high temperatures, whilst participants had cited low crop productivity as the most severe, resource scarcity also ranked high,

> *There is only one borehole in Kambarami. We share this borehole with the secondary school. Things get a little better for us when it rains because we can harvest water with containers, plus there will be plentiful water flowing in the rivers. The only problem is that we have to walk past 5 villages in the heat of the sun to get to Kaitano from where we access the nearest river which is Matize. The heat is unbearable but we just have to endure* [Woman, SSI, Nyanga]

In the Nyanga lowlands of Chapatarongo, Buseta village is another point where the Matize River flows past. Although this village is positioned strategically within close proximity to an important water source in the north eastern lowlands of Nyanga, Buseta women had said that in hot and dry periods the river would often run very low. The

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women had explained saying, "*Kana kwapisisa zviya mvura inopwa saka tinotoita zve kufukura mvura muna ma Matize*". Translated into English, the statement means that, in the very hot and dry episodes, water in the river Matize vaporises, therefore the women often have to scoop water holes on the river bed. The tradition of scooping water holes on sandy river beds is called *kufukura* in Shona and sand abstraction in English. The tradition is common in many Zimbabwean dry regions (see Hussey, 2007) like Buhera and the dry regions of Nyanga. Borrowed from Hussey, the image below is included in the findings only for the purposes of showing a woman in rural Zimbabwe abstracting water from a sandy river bed.

Source: Hussey
(2007)

The participant narratives confirm the information detailed in Chapter 7, that rivers are a common water source for domestic use in the Zimbabwean rural areas. As I sat among the group of the women in Buseta, I had learnt further that waterborne diseases were as a result also not uncommon in the rural areas. One woman in the group had said, "*Asikana kwaka daidzirwa Typhoid nezuro ku Regina Coeli*". The English translation of this statement is, "*Ladies, a Typhoid outbreak was announced yesterday at Regina Coeli*". Regina Coeli is a hospital which serves the rural population in Nyanga North. Nonetheless, more narratives of resource scarcity involving water and linked to temperature increases were heard also in Buhera,

> *Because of this relentless heat, Rusizo River is now just sand, but 20 years ago it used to be full to the brim* [SSI, man, Buhera]

Even as participants had suggested resource scarcity to be a natural corollary linked to atmospheric changes, a key informant had argued contrarily,

Some things should not be mixed up…most times we are forced to deal with problems resulting from poor farming practices. If you look at the Save River, it is full of sand; it has lost its defined water channel [KII, Civil Protection Unit]

The two accounts show divergent perspectives on the river regimes of rivers found within the same drainage basin (Save River Basin). The local person interprets a river discharge now characterised by zero river flow as being a natural occurrence or 'an act of god', yet, the representative from the disaster response wing of Zimbabwe reasons that much of the surface water crisis faced in the country is caused by poor farming practices[169]. Below is a community map drawn by community members showing the approximate locations of Rusizo and Save Rivers.

Image 16: Community Map for Gunura Ward
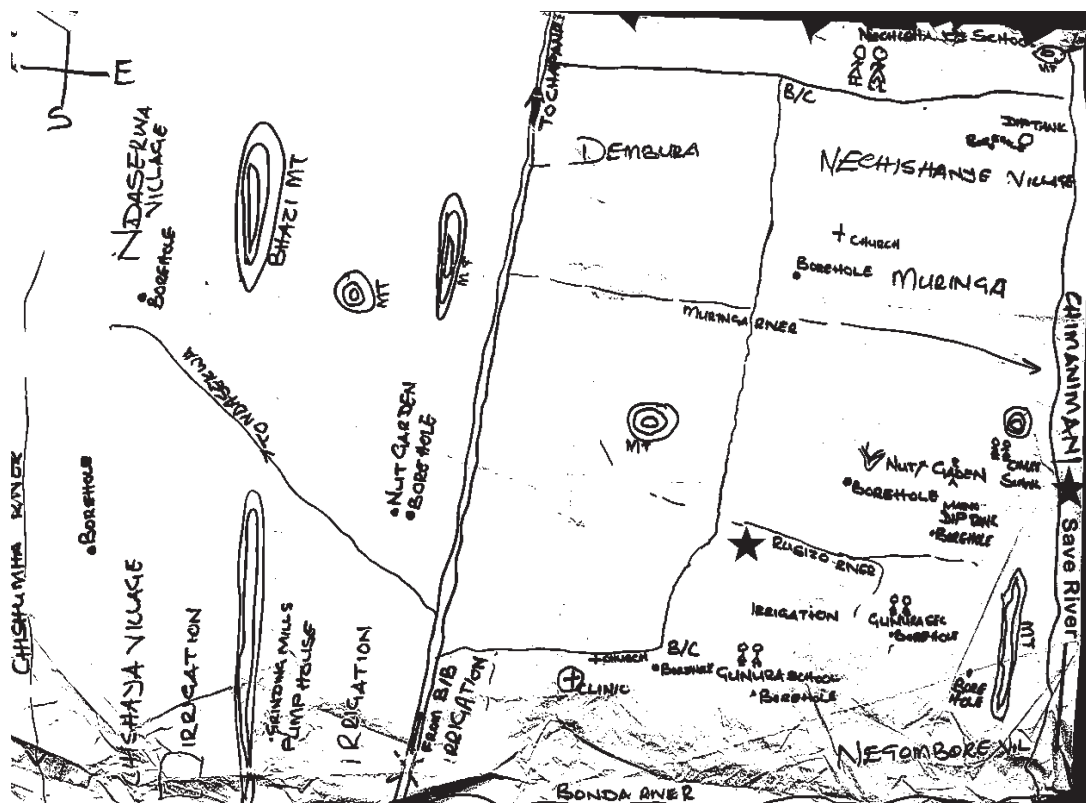
⭐ Rusizo and Save Rivers

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[169] Taken as punitive from a Gaian perspective where the earth Goddess Gaia responds to negative human influences on the physical environment through sanctioning negative feedback from the environment. Pitted against Gaia the nature Goddess, most rural people are of the ontological view of 'hazards' being divinely appointed through retribution from ancestral spirits [see section under causalities in Chapter 10].

The images below show what Rusizo and Save Rivers now look like.

Image 17: Rusizo River

Source: Author

Image 18: Save River

Source: Brett Chiweshe[170]

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[170] Brett Chiweshe is a friend who works for a Diamond Mining Company in Marange District which borders with Buhera

Low crop productivity

Under the previous sections, the participants had reasoned that poor rainfall patterns, seasonal shifts and temperature increases were among the physical changes that were instrumental in effecting low crop productivity. In this section I cite more evidence supporting the occurrence of low crop productivity in the rural areas. Beginning first with Nyanga, participants had said,

> *Our way of farming is no longer the same as in the years where we used to fill granaries. In those days we would reserve enough grain to last us till the next growing season, and we would also have extra to sell. I remember we would sell maize even to the Sena[171] who live beyond Gairezi. Some of them were so poor that they could not afford to pay cash for the maize, and we would make them work for it in our fields. We used to associate the Sena with hunger and poverty, but now it is the other way round. We have now become the beggars* [FGD, woman, Nyanga]

> *Previously an acre of land could give you sufficient grain to sustain your family, but now the same acreage will not give the same returns. The rains have been very poor and hunger has set in* [FGD, man, Nyanga]

Narratives of low crop productivity in Nyanga are disconcerting given that this is known generally to be a food sufficient region (see Chapter 7). While not as productive as the Nyanga highlands, the drier regions of the Nyanga lowlands were capable of producing enough yields for subsistence, and even surplus to sell. Yet in recent times the reality is as one Nyanga man had said,

> *But maize no longer thrives* [SSI, man, Nyanga]

However based on more participant narratives, it would seem that cultivated land has reduced drastically due to the unprofitability of farming large tracts of land in drought conditions, alongside a lack of farming input.

See images 19 and 20 below.

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[171] The Sena people being referred to here are the Mozambicans who live across the Gairezi River. Gairezi serves as a border between Zimbabwe and Mozambique in the North Eastern region of Zimbabwe.

Image 19: Chapatarongo field lying fallow at the time I conducted fieldwork in December 2013

Image 20: 2013 input prices seen in an agro dealer shop in Nyanga rural

To show how participant claims that low rain has impacted negatively on crop productivity correspond with what was said elsewhere, first, FAO (2015) reported that in the 2014 crop season, low rain had resulted in a write-off of nearly 300 000 hectares of crop particularly in the semi-arid rural areas. In the 2015 crop season, OXFAM (2015) also reported an estimated half a million hectares of crop written off due to low rain. As the participants claimed, elsewhere, lack of input has also been seen to play an accessory role in effecting low crop productivity. USDA (2009) reported that following the 2008/09 planting season, the application of basal and top dressing fertiliser had been less by 51% and 68% respectively than in previous crop years, resulting in maize yields in the range of 1 ton/hectare, down from the traditional national average of

4.5tons/hectare. Taking into account the data given by USDA, for Buhera, maize yields of below 4.5tons/hectare are not unusual. My RAs drew up figures showing maize production trends for Gunura with yields as low as 2.2 tons/hectare (see fig. 21).

Figure 21: Yield trends for Gunura
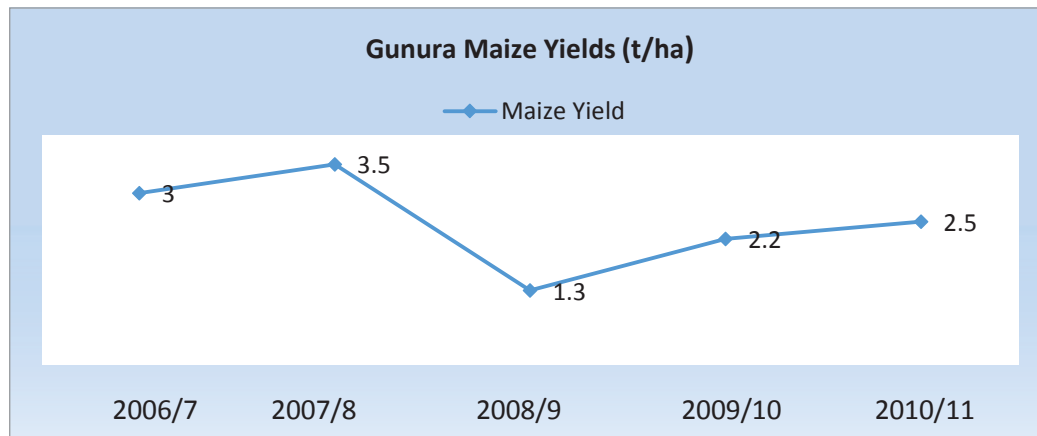
Source: Author

Notwithstanding that the rural people in semi-arid regions have small grains (sorghum, millet) to fall back on when maize does not thrive, the data supplied by the RAs implies situations of hunger in Buhera. This was supported also by the participant voices,

> *At present Bonde irrigation is not in operation. They promised us that they would fix it a long time ago but they have not. If fixed, maybe our situation of hunger will improve. Please, if possible, when you go back to Harare, udza vakuru vakuru vacho (tell the leaders responsible) that we are dying of hunger here* [SSI, woman, Buhera]

> *I am in a very difficult position. I sold 2 of my cows to pay for my wife's medical bill and I was left with 2 to use in the field. Now, 1 cow died leaving me with only 1. If this drought persists and I don't harvest anything come April, I will be a dead man. I can't sell the only cow I have left; it has my late grandfather's name. His spirit (grandfather) that guides my family is in Musekiwa (the cow)* [SSI, man, Buhera]

The last participant I cite is a Buhera *Sabhuku* who had given a rather summative evaluation of the whole problem of hunger. Addressing me he had said,

You want to know what environmental changes we are experiencing? There is no rain, our crops are wilting, and our animals are dying. Hunger won't leave us alone [FGD, man, Buhera]

As this man who was referred to only as Museyamwa was still speaking, a man in the audience had interjected him saying, "*Museyamwa, don't leave out the hyenas, tell her that they are coming for our children, and our animals too*". This dialogue was part of the exclusive group discussion that I had held with *Sabhukus* in Buhera. More of the *Sabhuku* contributions towards the narrative of environmental change will be seen in this chapter under the heading, 'the disintegration of regulative systems'.

In the next section I will present the social changes before summing up the effects of both physical and social changes to the rural men and women.

Social Change

Owing to the context of crisis, the story of gender and social change in Zimbabwe is more complex than what is often implied by the semantic of change. Through presenting compound situations that challenge men and women, this context has demonstrated the proclivity to distort normative subtexts of vulnerability. More dynamic approaches are thus needed to understand the nature of social changes as they relate to gender.

While men and women ultimately have different experiences of physical changes, throughout this study I argue that they are exposed to equal magnitude, duration and frequency of the changes[172,173]. Hence I deliberately omitted the notion of gendered perception from the previous section where men and women had demonstrated a preoccupation with roughly the same physical changes. In this current section however, gendered perceptions of social events and phenomena seem more distinctly gendered. For, mostly women in my study had showed concern about social changes relating to hunger and men about job losses. The village headship (*Sabhuku's*) comprising mostly

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[172] By this I mean the same hot sun, the same lack of rain fall is not differential in terms of gender; I realise however that a woman may work for longer under the hot sun due to gendered roles or be more physically compromised under the hot sun due to being pregnant or due to being iron deficient as she may eat last.

[173] Boholm (2015) confirms that gendered differences give rise to gendered perceptions of events and phenomena.

men had relayed concerns over changes relating to law and order. Together, men and women seemed concerned about the loss of viability in farming, and in the growing dystopianisation of family[174]. I will present social changes under the following headings: (1) disintegration of sustaining systems (goods and services), (2) disintegration of regulative systems (law and order) and (3) disintegration of the reproductive system of society (home and family). Though not comprehensive, the social changes narrated by the participants reveal changes of public concern at the time that the study was carried out.

Disintegration of sustaining systems

When I envision sustaining systems, I think sustenance, maintenance and subsistence. I picture means of support or livelihoods that generate income provide nutrition and other provisions needed for human welfare. Within the context of my study, participants expressed a growing concern over depreciating food security and livelihood security which implies compromised sustaining systems. The imageries and narratives that will follow are indicators of decaying sustaining systems observed first hand in the rural communities. The first imagery which is shown directly below displays a field with water deprived and sun scorched maize crop.

Image 21: Measly maize crop, Nyanga

The narrative further below supports the evidence shown in Image 21.

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[174] The concept of dystopian families is taken from Muchemwa and Muponde (2007) who review Zimbabwean families from the perspectives of literature, history, politics and social anthropology. The word dystopian is the opposite of utopian. Both are adjectives used to describe desirable and non-desirable settings in a State, with the latter reflecting dystopianisation. As in Muchemwa and Muponde's book 'Manning the Nation', dystopianisation is in this study applied to the familial level.

I am the third wife to my husband. From the time I was married in 1997 we ploughed large tracts of land. A wife and her children would each plough an acre of maize, while our husband ploughed another acre with help from hired labourers. In total, our family could have maize crop covering 4 acres of land. Each wife targeted at least 10 bags of maize from the acre, as these would be enough to feed her children. Our husband's maize yield would mostly be for sale, so that we would have money for things like school fees. However if we the wives failed to harvest enough we could still access our husband's maize granary. The shifting seasonal patterns and inconsistent rain have made things hard for our family. We have not been able to plough successfully. We went down from getting 10, sometimes 7 bags of maize per acre to getting less than 5 bags. Each wife has had to reduce the acreage of land because input is also now hard to buy. So each planting season we now use discretion to decide how big a portion of land we should plough. Our husband has maintained ploughing on his acre of land. His harvest too has not been good, but he says, 'Sa baba ndinofa ndichiedza'. (As the man, I will die trying). [Woman, SSI, Nyanga]

Image 22 below shows the process that often follows each bad harvest in rural Zimbabwe, that is, the need to access food aid.

Image 22: Crowd waiting hours on end for food aid, Nyanga

While food aid seems to be the solution to food insecurity for most rural people, the reality is that only a handful of selected beneficiaries often qualify for aid, meaning, many people will continue to go hungry as seen in the narratives below.

> *We are all hungry but not all of us qualify to get food aid from the donors. Those who are targeted for food aid are mostly those who are considered as being 'very poor'. Often as a community we sit down with the NGOs to decide who among us is 'very poor'. If you have your relative who can vote for you as being 'very poor', your name will appear on the donor list. But this favour would need to be returned. Next time, you would also have to vote for your relative who voted you as being very poor, so that they too can benefit from food aid.* [SSI, man, Buhera]

> *The NGOs mostly come for the 'very poor', those suffering from HIV/AIDs and pregnant women. Zvino tese tingaite nhenga here kuti tipinde pachirongwa? (So, shall we all become pregnant to qualify for the food aid programme?)* [Group of women, Nyanga]

Imageries of decaying sustaining systems in rural Zimbabwe can be seen additionally through the living conditions of the rural people evidenced by Images 23 and 24 below. Image 23 shows school children wearing almost tattered and incomplete school uniform. Without wanting to speculate too much, the uniforms match the broken and incomplete furniture often found in the children's classrooms.

Image 23: School children lacking complete uniform, Buhera

Further below, Image 24 shows a shop close to Muzokomba which had near empty shelves not in 2008, but in 2013.

Image 24: Low supplies in a shop, Buhera

As I was contemplating on Images 23 and 24, I had recalled an encounter I had with a Buhera man who was thankful that he did not have a wife and children as the economic climate would prevent him from adequately providing for them,

> In the mid-1990s to early 2000s, I worked for a citrus farm in Chipangayi until it was taken over by war veterans. Left jobless, I went to Harare where my uncle found me a job as a mahobho (security guard) at some company, but that did not end very well because the wages that I earned could not allow me to sustain a decent life in the capital city. In 2007 paka tsviriridza ngoda kwa Chiadzwa (when the diamonds became famous in Chiadzwa). I came back home and became a gweja (artisanal diamond miner) for about a year before becoming part of a group that was rounded up for illegal diamond mining by the Mutare police. We were locked up for weeks and were badly beaten and tortured. Up until today handidi kunzwa chinonzi ngoda (I do not want to hear the mention of the word diamond). I came back home sick with injuries and I was also very broke, so I have had to start my life from scratch. This country has robbed me of my life, I am 45 years old, and have nothing to show for my years of hard work, no money, no job, no house of my own. At least I have no wife and children, what would I give them? [Man, SSI, Buhera]

In the two sections that follow, I will disclose more participant narratives of social change substantiating the disintegration of sustaining systems. The narratives will now

be disaggregated by gendered experience. I use participant voices as the headings for the two sections.

'It was either that, or my children would sleep on empty stomachs'

Food security is the availability of an adequate supply of basic foodstuffs at all times (FAO, 2003). As such, the prolonged shortage of basic foodstuffs would reflect a food insecure situation. And, if experienced successively, that is crop failure taking place within the backdrop of drought conditions and then an economic crisis, the eventual result can be food insecurity - as is with the case of Zimbabwe. While food insecurity can be transitory, in Zimbabwe, it now seems to be chronic. For most participants had expressed concern over the depreciating security in farming which over the past 15 or so years has occasioned poor harvests. Of these participants, mostly women had mentioned experiencing hunger as an environmental change. Citing an instance from a community gathering held in Buhera, the first response to the question, "*what environmental changes have you been experiencing in your area*", was simply, "*hunger*". While the general rule is that environmental changes are typically those biophysical in nature, to those unaware of the rule, it is correct to say as part of their environmental changes experiences,

> *We have become people of hunger* [SSI, woman, Nyanga]

Since the calculation of risk by gendered identities gives rise to gendered perception of risk, I consider hunger as being associated with the gendered identity of women and their roles of motherhood. In the Shona culture, the traditional kitchen, which is a thatched hut with a *choto (*hearth) in the middle, including a *chikuva* (earthen shelves) at the edges, has deeper anthropological meaning. It is a gendered space that symbolizes woman's responsibility for the food security of the family. Hence on top of expressing their concern over growing hunger, most women had narrated their strategies for coping with it,

> *When I leave for work at the irrigation in Nyamaropa, I often leave my children with little to eat. Sometimes, I take the pods from an indigenous tree called Munyeza. I soak them in water and dry them on bare rock, before pounding*

them. I tell my children to make a thin porridge with the powder. When I come back from Nyamaropa with some maize, I process it, and mix the maize powder with the munyeza powder for longer use [FGD, woman, Nyanga]

The participant above was married to a man working as a gardener in Harare. The participant's family virtually owned no land, as the only land that they were entitled to was that which they had built their homestead on. The land included a back section where the family farmed a small vegetable garden. The participant's family represents the landless rural families who sell their labour to fellow farmers. Left alone with 4 children in the *Hwesa*, the participant had to devise means to ensure that the children had something to eat, even if the food were unconventional. Another female participant had also shared similar experiences of hunger saying,

Sometimes I make a fire to prepare food knowing fully well that there is nothing in the house to eat…One time I boiled green bananas so that my children could eat. It was either that or they would sleep on empty stomachs [SSI, woman, Nyanga]

Unlike the earlier participant, this woman was widowed, owning land from her deceased husband. Although owning a vast piece of land, the participant still reported that farming was no longer a viable option,

There is no security in farming anymore, because no matter how good a farmer you are, these days farming has become a huge gamble.

In light of her response, I asked the woman if she had considered other livelihood options, given that as a farmer she was failing to grow surplus to sell, let alone enough to eat. In response, the participant said,

If I get money, I plan on going across into Mozambique to hoard ma zitye (second hand clothes) to sell. What else can I do? I am a mother who has 2 mouths to feed so I must come up with a plan or else my in-laws will start to say we told you so. After the death of my husband they had proposed kuti ndigarwe nhaka (to be inherited as a wife) by my husband's younger brother but I refused.

There may be a number of reasons for off farm diversification, but in the case of many rural people in sub Saharan Africa, resorting to non-agrarian livelihoods is chiefly emblematic of the failure of farming to provide sufficient livelihoods for the rural farmers (Bryceson, 2002). As part of this process farming becomes a part-time, residual, or fall-back activity, as livelihoods increasingly become oriented to non-farm and non-rural activities (Ellis & Allison, 2004). The process in which the ways of living in rural areas become dominated by non-agrarian livelihoods is known as deagrarianisation (Bryceson, 2005). However, whether on-farm or non-farm, the responses displayed so far clearly show that the burden of caregiving falls primarily on women. As a result, because of her gender determined roles of mother, household manager and carer, women have on the whole a different experience of being vulnerable to men. This point is also supported by the following response,

> *As men we go many places, and when we stumble upon a colleague, who is eating, say at the beerhall, we dig into their plate. Food worries for that day become history. But, back home the woman will be stuck with the children and their hunger still a reality* [SSI, man, Buhera]

In the two cases of women and hunger highlighted so far, I cited a woman with a migrant husband and another with a deceased husband. In the next case, I will cite a woman with a husband who was present in the home to show that circumstance does not in any way change the woman's preoccupation with hunger,

> *Things have not been the same since my husband lost his job. He used to work for an ARDA coffee estate kwa (in) Rusitu. He came back home one afternoon to tell me that he and a number of other men had been laid off from work, as the company could no longer pay them. When he was working I used to stay home doing a little farming with the money he sent to buy seed and fertiliser. I could also afford to buy bread, milk and cooking oil which eased food problems. Since losing his job, my husband seems to have given up on life as he now spends most of his time at home doing nothing. The only other job he does of brick laying is part time, and also, farming has become increasingly harder because we no longer have money to buy seed or fertiliser, and also the rains have been very*

bad. As for me, I now go to the market to sell fruit like mazhanje (wild loquat) and matohwe (snot apple) depending which is in season. I worry a lot about my family going hungry, so I make them bota (thin porridge made with cornmeal eaten as breakfast cereal) in the morning before I leave for the market. I also leave mahewu (beverage made from cornmeal) and chimodho (bread made from cornmeal) in the kitchen for them to eat in the afternoon. When I come back from the market, I come with muriwo (vegetables) to cook with sadza (thick porridge made with cornmeal) for supper. Rikadoka tikadya (when the day ends, and we eat) I am happy knowing that the food problems for that day are covered. When I wake up in the morning, it will be another struggle to find food. [Woman, SSI, Buhera]

Through women's narratives of hunger, it can be seen that although the food women scrape up to feed their families may have enough calories to ease hunger, the food may be micronutrient deficient. Using the example of the participant directly above, she had reported serving a thin cornmeal porridge for breakfast, cornmeal bread and a cornmeal beverage for lunch, followed by a thick cornmeal porridge for supper. The added dimension of hunger that usually arises from such an imbalanced diet is a hidden hunger known in the literature as a silent hunger or micronutrient deficiency (Ziegler, 2013). Regardless, both women and men have crucial roles to play as parents, yet what is further certain is that due to barriers (for example, employment driven migration, marital conflict and other problems), men may altogether disengage from their provider roles, catering only to their individual survival (Jackson, 2007). Whereas women are left vulnerable in the sense that, they are left fending for their own and their children's survival,

Some men go searching for jobs outside the village and will not come back home, let alone send money. The woman has to struggle to take care of the children on her own [SSI, woman, Buhera]

'I have no job, I have access to land, but there is no rain'

In the previous section, mainly women participants were seen narrating their stories of hunger, indicating that their livelihoods too were under threat. With respect to men the

previous section suggested however, that male participants had not expressly conveyed concern over hunger in the same way that most women had. In this section I present participant narratives that show that male participants had instead expressed worry over the growing unviability of farming which was threatening their headship and provider roles as fathers. The narratives imply that men's experiences of being vulnerable were indeed different to women's. To narrate their share of predicaments the male participants had said,

> *I used to grow enough maize to feed my family and surplus to sell to the GMB. I took all my children to Mt. Mellary Boarding School through working with my bare hands. But now I am struggling to grow enough to eat* [SSI, man, Nyanga]

Claiming the title of *hurudza*[175] on top of his title of *Sa musha* another man had separately said,

> *I am the top farmer in this village, but of late I have not been able to plant profitably* [SSI, man, Nyanga]

The two male accounts suggest that the male privilege of primary usufruct rights to land, does not guarantee efficiency and productivity. Despite tremendous advances in agricultural science, climate and weather remain crucial variables for farmers (Rosenzweig et al., 2001). In addition, having land and labour still does not amount to efficiency and productivity. A third combination from Marx's trinity formula,[176] which is capital, is required. The participant accounts suggest that the economic crisis in Zimbabwe is compounding the ability of even the male farmers to earn decent livelihoods. Turning now to remunerated employment, mostly men had expressed a growing concern over unemployment and job losses,

> *There are no jobs for us, a lot of industries have closed and the few jobs that are there require people who have gone to school* [SSI, man, Buhera]

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[175] Hurudza is the Shona word for top farmer. Interestingly, the Shona word to describe top farmer exists only for men (see Mudenge, 2008).
[176] Karl Marx's Trinity formula asserts that in capitalist societies, value can only be realised in the presence of land, labour and capital.

> *We used to work at plantations in Mkwasine and Chipangayi, but there have since been disruptions at the plantations and a lot of us have lost our jobs* [SSI, man, Buhera]

In both instances, the role of man the provider is threatened further. The first instance is a typical dilemma faced by most rural folk who barely make it past their Ordinary levels[177]. Deindustrialisation further limits career options for most, who are unskilled to semi-skilled. The second instance also, is a typical dilemma resulting from job losses due to the cessation of commercial farm and plantation operations. On that note, the 'malefactor' which is the de-racialized agrarian reform, did result in the job losses of a fraction of the indigenous population, but also did resettle another fraction onto the formerly white owned high potential lands. Compared to the 71 000 families resettled in the first 2 decades after independence, between 2000 and 2003, up to 300 000 families were resettled (Moore, 2005). On another note, processes of deagrarianisation and rural employment have been forecasted (see Bryceson, 2005), more so, in light of the liberalisation of the market and removal of consumer and input subsidies of the 1990s (ESAP). But clearly the reorientation of livelihoods has not been an easy transition for rural Zimbabweans given their limited diversification channels. The cash economy has shrunken, offering no form of reprieve for those wanting to broaden their livelihood portfolios, while staying a farmer now carries with it as much burden of uncertainty for women as well as for men. Coupled with the high levels of redundancy, the insecurity of farming seemed to have implications far greater than livelihood loss. For as suggested by some participants, livelihood loss was tied to loss of life. To share his experience of the effects of livelihood loss on life itself one male participant had stated that,

> *People are poor, people are hungry. As a result people are dying daily. Just yesterday we buried two men I know. Last week, we buried one* [SSI, man, Buhera]

To learn more of the circumstances surrounding the deaths, I had asked the participant if he knew the causes of death for the deceased men. The participant had testified further saying,

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[177] (NCEA 1 equivalent) See Chapter 5, for the educational credentials of the participants.

> *These days, people are dying from short illnesses. Others just collapse unexpectedly. Of the two men buried yesterday, one died in his sleep, and the other had been complaining of headaches and later died on his way to the hospital.*

On hearing this, I had gone a step further to ask why mostly men seemed to be dying in numbers. However for an instant, the participant seemed lost in thought. Under his breath he finally said, 'tese *tapera*', meaning we are all finished. Overwhelmed by the emotional moment, I had stopped probing. Altogether, when farming fails and formal jobs are lost, men will resort to other coping strategies,

> *I have no job, I have access to land but there is no rain, if I sit and do nothing my family will die, so I sell trees to survive. I know that unlawfully cutting down trees is a punishable crime, but my family has to eat* [SSI, man, Buhera]

> *It is too costly for me to catch a kombi so I walk 4 hours on foot to get to the irrigation at Nyamaropa. I work in people's fields and get paid in the form of grain. I walk back home 4 hours on foot to bring food to my family* [SSI, man, Nyanga]

> *Year in year out my family relies on food aid. If you must know, it is emasculating to the man to not be able to provide for his family and have to rely on food hand-outs* [SSI, man, Buhera]

> *I am a traditional healer. I have a spirit of divination to discern people's problems, as well as the diagnosis to their problems. I do not accept cash payments for my services. I charge the animal equivalent depending on the nature of problem. So payment can range from a single chicken to a cow [SSI, man, Nyanga]*

The first three coping strategies mentioned were more relatable as they were quite common to encounter in participant narratives, but the last coping strategy was not. In other dialectics, this last narrative may not at all be listed as a livelihood or even coping strategy, but rather, as a response to a divine calling. What prompted me to list the narrative as a coping strategy is the timing that the participant had received his calling.

When I had asked him for how long he had practiced as a traditional healer, the participant said that he had only started practicing at the time that Zimbabwe had plunged deep into crisis in 2008. At this critical point, the participant said he had received a vision telling him that there were a lot of people facing social, health and financial problems and yet there was a shortage of traditional healers. Citing a New Testament passage perhaps a little out of context he had said, "*Kukohwa kukuru asi vashandi vashoma*". This in English means that the harvest is plentiful but the labourers are few (see gospel of St Luke 10:2). More coping mechanisms used by the rural men and women to cope with environmental change will be seen in Chapter 9. An important thing to note at this point is that, the overall impact of disintegrating sustaining systems has birthed situations of chronic vulnerability as one key informant argued,

> *Due to the present nature of crisis we are having to coordinate relief aid to many chronically vulnerable people in the rural areas. Logic tells us that if we are going to respond to people's food security needs year in year out without considering capacity building options we are merely nurturing their vulnerability, we are simply looking at a crop season and how many people don't have food, and then we say, let's give them food, yet next year, the same people are still going to be food insecure. But experience has also taught us that building capacities will not happen overnight, so food aid will keep being given as needed* [KII, OCHA]

The trouble with constantly distributing free food is the potential stimulation of lethargy in the regular beneficiaries who may stop trying to produce food at all knowing that food will be given to them for free. There are regular beneficiaries however like the Buhera man cited earlier who find the consistent reliance on aid to be emasculating.

Disintegration of regulative systems

Regulative systems have to do with the policing of people to bring them into conformity with rules that are designed to effect social order. With regards to the Zimbabwean jurisprudence, rural areas are governed by central and decentralised legislative bodies. The latter include the Chief who represents the highest traditional office under decentralised government. The Chief therefore is the supreme justice presiding over customs and customary laws under each rural jurisdiction. *Sabhuku* is a designation

lower than the Chief. Pertaining now to the disintegration of regulative systems observed in my study, the *Sabhukus*, consisting mostly men had expressed concern over the question of law and order within their *bhukus* (jurisdictions).

Image 25: Researcher engaging *Sabhukus* in Buhera

A state of lawlessness

Prior to colonisation, the Chief held limitless powers as the earthly vicar of the custodians of the land (ancestral spirits) whom he and the people made sacrifices to (Moore, 2005). To nurture the reverence of his office, a day called *chisi* was set aside to honour both he and the custodians of the land. Although to date, people in respective rural jurisdictions are still forbidden from tilling the soil on *chisi*, the *Sabhukus* had expressed the contrary concerning people's regard for *this tradition.* The *Sabhukus* had indicated that some people now rebelled against *chisi* arguing that they would not have two Sabbaths in a week; one for God and one for the Chief. A Nyanga study by Magadlela and Hebinck (1995) discovered similar findings. Their study carried out in Nyamaropa, which is almost 4 hours on foot from my case study site, revealed that some farmers now saw *chisi* as no longer conforming to the ideals of modern farming. They cited farmers who said, "*a successful farmer is someone who is in the field*", and "*we came here to farm, not to wait for holidays, we are in business here*..." (p. 57).

Bearing the reflection of the Shona proverb, '*chisi hachiyeri musi wacha rimwa*'[178], the implications of these actions will fully be understood under the section of causalities.

For their failure to enforce both traditional and statutory laws, *Sabhukus* in Nyanga and Buhera felt undermined. I further give an example of cases where leaders told people to stop cutting down trees for commodification, and were met with the excuse that, '*we are hungry, we need to live*'. The enigma enveloping this state of play is what had led a *Sabhuku* from Buhera to say, he now consciously left people to sell trees if they wanted. His argument was that, if he stopped them from commodifying trees for survival, he would not be able to feed them all from his pitiful granary. Underlying his demeanour was a discernible cynicism towards the government; supposedly, for having left them behind,

> *Ukada kutaura taura tumu temo kune vanhu vane nzara unenge wakuonekwa kunge wakaipa (If you start mentioning a lot of rules to hungry people, you start being perceived as the enemy). Asi handini ndakonzeresa nzara, hurumende ndiyo yatiregerera. (But I am not the one who has caused hunger; the government is to blame)* [Sabhuku, Buhera]

A disposition consistent with the above was observed in a Nyanga *Sabhuku* by Moore (2005). The *Sabhuku* seemed aggrieved by the myth of development that had been embodied by the anticolonial liberation struggle. As Moore points out, the feeling of being left behind invokes a spatial stasis amid dynamic transformations imagined in distant places. The feeling of being left behind is warranted by the fact that, posterior independence; many rural areas remain disengaged from development (see Chapters 6, 7). From conversing with the village headship it also became apparent that accountability over natural capital was lost further because *Sabhukus* could not enforce punishment over persons who were not from within their *bhukus*. A Buhera *Sabhuku* had blamed the government for not carefully planning the settlement areas. He reasoned that, the non-arable lands should have been earmarked exclusively for livestock production and the more arable lands left for crop production. Since this did

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[178] Centred on the notion of breaking chisi, the proverb states that the consequences of bad behaviour are not always seen on the day that the deed was committed.

not happen, a person from village 1 could be seen crossing over into village 2 to farm, and that from village 2, crossing over into village 1 to graze his cows. In the end, the Sabhukus found it hard to track down trespassing offenders and to reprimand them upon catching them.

Image 26: In Nyanga not obeying the village headship had been top on the list of social changes

Keeley and Scoones (2003) show however, that the environmental law enforcement agency in Zimbabwe, formerly called the DNR, now EMA, has also battled with enforcing environmental regulations in rural areas. This is to the point that two DNR officials had been quoted saying, "*unless you send in the army, gold panning and deforestation will go on*", and "*you cannot have a police officer behind every tree*" (p. 155). The bottom line is, an outlaw culture is used by desperate people as a means of coping with shocks.

Disintegration of the reproductive system

The Zimbabwean family is comprised of the nuclear, as well as the wider extended kinship base[179]. The reproductive system is taken here to mean social accessories such as family and kinship working together (not always in consonance) for the purposes of social reproduction. The disintegration of family in this study encompasses the tensions caused within families due to environmental change. Faced with shocks, some family members engage firstly, in unruly behaviour to cope, while secondly some disengage

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[179] Kinship here is taken to be relatedness by blood or marriage or ties based on common ancestry or lineage. In Zimbabwe, the tribal culture is underpinned by totems which are also very binding, as many relations are built solely on this basis. Therefore kinship here is taken to go beyond the nuclear and extended families.

from their traditional and cultural obligations towards the family. This second point will not essentially be outlined here, but will be given primacy in the discussion chapter.

The objective of the second point is to show that where the reproductive system in traditional rural communities was once a moral economy, taking upon itself the moral obligation to assist family in hard times, it appears as if this role is being gradually eroded by the many forces of environmental change. As Rwezaura et al. (1995) point out, the changing modes of production, belief systems, residence patterns and technology now circulating in Africa have meant that the family is transforming, re-fitting itself to deal with the changing society, as a result moral obligations are becoming more limited to the nuclear as opposed to the extended family. In this section, I will only dwell on the disintegration of the reproductive system enough to evidence the cases of dystopian families against the backdrop of the economic crisis.

Dystopian families

Among the issues raised by participants were the growing numbers of people involved in early marriages, prostitution, with HIV/AIDS infections and insolence among youths. According to one man in Nyanga,

> *Our daughters are being fooled to enter into marriage at a very young age. They get married as early as 13 years* [FGD, man, Nyanga]

A conceivable rationale for this would often be that, people marry off their daughters in exchange for a dowry that can be used to alleviate hunger problems. But this is not always the case. In lieu of the classic cases of parental greed, young girls were being frequently enticed by a seemingly better life to the one at home, and hence often eloped,

> My 16 year old daughter ran off with a *gonyeti*[180]*driver. All our efforts of begging her to at least write her O'level exams fell on deaf ears, because she says the man treats her well and buys her stuff, if she leaves him she will not find someone else like him. So now we are just watching to see where this will lead* [SSI, woman, Buhera]

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[180] This is a Shona colloquial term for haulage truck.

Much of the concern from parents stemmed from the growing cases of HIV/AIDS related mortalities among young people, and the often left behind HIV orphans. Bearing in mind that in 2011 alone, Zimbabwe had 1.6 million HIV orphans (see Nkatazo, 2011), this concern by the rural men and women is very valid.

Meanwhile, an interesting wave of thought had permeated a communal gathering in Nyanga. In attempting to justify some of the unruly behaviour by the young people, there had been disgruntled murmurs about science. Various responses were submitted relating to how the science syllabus (i.e. biology, reproductive education) was seen to be causing children to experiment with their bodies at an early age. The implicit argument was that education had a bearing on the transformation of the mind-set, often 'liberating' cum 'alienating' persons from tradition. With reference to this point, some parents had reported their children to have become outright insolent after having acquired some level of education. In a separate study also on rural Zimbabwe, Batisai (2013) had unearthed similar tensions between tradition and education. Her participants who were elderly women had narrated how children, once enlightened by formal education now denigrated the wisdom of elders, saying, "*you are not educated... there is absolutely nothing that you could tell us*" (p. 153). Whether or not the children's unruliness in a result of education is debatable, because there are studies which report the unruliness of adults, in particular men in rural Zimbabwe in light of the economic crisis (see Goebel, 2007).

Taken as a whole, the cases of unruliness noted were cited by some parents to be underlined by a sense of hopelessness, while other parents cited idleness. In both cases, the common sentiment was that the young people were disadvantaged. Realising their disadvantage, some youth also thought it to be pointless to pursue an education, considering it more lucrative to engage in shortcuts to gain quick money, happiness and gratification. Assessing the youth disadvantage further with a forum of village heads from Buhera, one *Sabhuku* had relayed the disadvantage through the following pointers,

 (1) Young people in Buhera South, had not been beneficiaries of the irrigation scheme,

(2) Due to population pressure and land degradation, the young people were not able to access arable pieces of land,

 (3) On the land that they got, the young people could not profitably farm also owing to lack of sufficient input and the conniving weather elements,

 (4) Youths further lacked competency on the national labour market, which was notwithstanding the already high unemployment levels in the country. This means that, in either event, rural youths could not be gainfully employed, nor could they farm profitably.

Commenting on the rural disadvantage in a separate setting, a young man who is a bricklayer by profession had said,

Adults are better off because they lived a better life [SSI, man, Buhera]

The impression of paradox here, is derived from the sense that, adults were to be envied as they had lived much of their lives under a different regime, that of the colonial government.

Ending the section on the subject of discipline, while women are the custodian of culture, and have responsibility for instilling morals in children, men are the disciplinary body. Yet, currently men accustomed to disciplining other bodies are being forced to retreat economically from visibility, and from authority (Muchemwa & Muponde, 2007). The state of the nation seems to be decimating men's provider and disciplinary roles, precluding them from effectively manning the nation, and in the process exposing their vulnerabilities (also see Goebel, 2007). At the same time, although a dated study by Obbo (1981) had implied that society expects women to remain monomorphic amidst social change, rural women's socioeconomic contribution which is mainly informal is growing. Women however, remain the custodians of culture, and less in authority on those grounds. Their inability to resist custodianship even over those cultural elements that denigrate them can be taken as a form of powerlessness that in turn informs their vulnerabilities. With the crucial pillars of family (men and women) being vulnerable, the children become part of the web of vulnerability. Alluding to a 2012 documentary by

A.A.V Amasi called Chauya Chauya[181], meaning whatever happens, I end by reinforcing the view that, environmental changes, coupled with the state of the nation have engendered vulnerable people.

Summarising Part One

In this first part I presented the experiences of environmental change first-hand from the rural men and women. In Chapter 2 I showed that environmental changes are extensive and menacing, while in Chapter 3 we learnt that the outcomes of environmental change are different to different people. Since attempting to canvass all the effects of environmental changes for all people could be a highly mammoth and convoluted task, this study is interested in showing how men and women are affected differently by environmental changes. Now to consolidate the multiple realities of the environmental changes narrated by the rural men and women in this chapter, I will refer to the conceptual framework given in Chapter 4.

On the basis of the conceptual framework (see Chapter 4), men and women receive equal frequency, magnitude and duration of the physical changes, and as seen in this chapter, men and women similarly stated poor rainfall patterns, seasonal shifts, temperature increases and low crop productivity as the environmental changes of communal concern. Underpinned by the premise that physical changes do not follow a natural selection of casualties that is based on gender the next chapter will show participants saying statements like, "*the absence of rain is the absence of life for all living things*", or "*we are all living under the same rainless sky, tilling the same barren land*". But of course, the net effect is that of differential impacts between men and women as a result of gender and other markers of social difference. This will be argued in the discussion chapter.

Also on the basis of the conceptual framework (see Chapter 4), men and women do not receive equal frequency, magnitude and duration of social changes, and as also seen in this chapter, women seemed more preoccupied about social changes relating to hunger,

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[181] Chauya chauya means whatever happens. Most young girls in the film were barely past their 20s and had been teenage mothers. Faced with no alternative livelihood, they were now prostituting to survive. Fearless of death one woman had said, "I used to fear death, until I realized that fear doesn't send my children to school".

whereas men seemed more preoccupied about social changes relating to job losses. Due to the interdependencies between their gender roles, the men and women farmers expressed concern over the loss of livelihood security in farming, as they also shared concern over their increasingly dysfunctional families. The issues of law and order at societal level were raised mostly by men, for in both Buhera and Nyanga, the community leaders that I encountered were male.

The gendered experiences of physical and social changes show the gendered dimensions of environmental change, to an extent, pointing towards how men and women are differently affected by the changes. The discussion will explore the gendered impacts and differential vulnerabilities of rural men and women to environmental change in more depth. The next section will address the second research question on causality.

Part Two

Causality: Chikonzero[182]

In the context of this study, *chikonzero* is used to address the causes of environmental change from rural perspectives. Unfolding environmental changes have caused rural men and women to become agents of demystification. Each planting season has brought with it the atrocious task of demystifying the odds. Now, some blame God, some the gods, some the government, some are just aloof. This again evokes the condition in medieval France that was depicted by Muchembled (1985). In this era, it is said that magic, combined with a touch of Christianity served as the belief system by which threats and dangers were dealt with conceptually and behaviourally, allowing people to feel as if they had a measure of control over their world (see Lupton, 2013, p. 2). Based on the philosophical framings of perception however, no matter the substance of the perceptual experience, perception can be treated as capacity for knowledge. McDowell (2011) purports that this is so because perception is knowledge known by the knower, and is accessible only to the knower, where the knower may express their knowledge and defend the inferential basis upon which they know it.

To explore the participants' perceptual understandings of risk and causality in this study, I follow the model below which was adapted from Lauta (2015) (fig. 22).

Figure 22: Participant views of causality

Epistemology	Ontology
Panetheism	The disaster is divine
Animism	The disaster is inherent in nature
Modernism	The disaster is social

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[182] *Chikonzero* means cause. The word has become the subject matter of a topical idiom that castigates the 2nd Murambatsvina in 2015 (see Chapter 6 for details on 1st Murambatsvina). This time, the affected people who are mainly vendors, responded through saying, '*wongorora chikonzero chaita musoro uteme'*, translated to mean, address the cause of the headache. In the context that it is uttered, the expression implores the government to stop attacking vendors who are seeking to live a decent life, and instead address the causes of the economic crises.

The changes are inherent in nature

Changing times

A few participants saw changing times as the leading cause for environmental change. A typical response in this regard would plainly be, '*inguva yacho*', translated to mean, it is just the natural course of events. Upon probing further, it was not unusual to be met with restrained responses still pointing to the inevitability of impermanence and the transient nature of life. Given the just ended elections and tense political atmosphere, there was a sense of mistrust. This meant that people were very careful with their responses, and I too was careful about what I asked. Escaping further into oblivion, one participant had hidden behind the theologian concept,

> *In reference to God's word, there is a time and season for everything* [SSI, man, Buhera]

The changes are divine

Not following tradition

This was the most topical of all causal inferences relating to environmental change. As may have already been implied, religion plays a central role in the Zimbabwean way of life, albeit with a tug of war between Christianity and Indigenous beliefs. The former is often seen as being representative of modernity and the latter tradition. According to Rwezaura et al. (1995), the introduction of Christianity and modernity have led to some traditional rituals being abandoned or transformed, while in other cases traditional ceremonies are carried out alongside modern ones. Most participants in this study had tried to reason that the gods were angry at people's desertion of tradition, arguing that some environmental changes were thus retributive,

> *In olden days we used to receive good rainfall and also in due season. This was because people used to follow chikaranga (tradition). For everything on land there were traditions to be followed as well as laws governing these traditions. We can attribute the major changes to the environment to our departure from the traditions that our ancestors used to hold in the highest regard and practice religiously* [SSI, woman, Buhera]

A more elaborate response from an elderly man in Nyanga explained that, "*mashandire anoita nzvimbo yakajaidzwa ne vakuru vedu vekare anonetsa*", meaning, the land accustomed to being cossetted through rituals becomes defiant in their absence. The old man narrated further that, increasing participation in Christianity and the general inclination towards modernity had led to the land withholding water. The man's diction is particularly interesting, for he implies that the 'land', not the 'sky' was withholding water. To validate his outlook, a separate study confirmed that in the Shona cosmology, "*the land is not merely a source of physical sustenance. It is the abode of the ancestral spirits who exercise considerable control over the destiny of living*" (Stratton, 1986, p. 11). Hence the spectral powers demand propitiation for their provision of rain, failure which leads to the censorship of this benefaction. The elderly man additionally relayed his contribution saying,

> *People nowadays will respect not even the sacred mountains or trees. Growing up we knew that there were certain places, usually in the mountains where young women were not allowed to cut down trees. Only old women who were no longer sexually active were allowed access into these areas, for they had the knowledge of all tree functions and medicinal purposes, and knew which trees to preserve. But nowadays those forbidden places are the favourite hangout places for young women [SSI, man, Nyanga]*

In ending his narrative, the participant had shared a horrifying experience illustrating how people had indeed moved further and further away from indigenous culture and with no shame whatsoever,

> *Recently, something terrible happened here which I did not quite understand. A svikiro (spirit medium) was attacked during a community gathering. This is after he had suggested the need to appease the gods for rain. He was badly beaten, yet these spirit mediums used to be an integral part of the community, giving counsel and guidance in important matters. In the war against the British, not many people mu Hwesa (in our area) perished. People would consult spirit mediums who would forewarn them of imminent attacks and so they would hide before an attack.*

A female participant had explained the process of appeasing the *vadzimu* (ancestral spirits) followed in the rain making ceremonies,

> *Only the old people would take part in these rituals. They would set off to sacred places in sacred mountains where they would sing and dance all night and pour beer on the ground in honour of the gods. At sunrise, when they came down from the mountains, the clouds would be darkening, a sign of the impending rain* [SSI, woman, Buhera]

When I had asked the *Sabhukus* in Buhera, what had happened to *vadzimu*, they mostly shrugged and chuckled, though in their eyes you could easily note great sorrow and confusion. One among them had sadly replied through saying, "*sacred trees are being cut down midzimu yotiza (then ancestral spirits flee)*". Moved with compassion, I did not probe any further, for I realised that given the circumstances there was very little the community leaders could do to preserve the sacred trees. However, as suggested in Chapter 6, this mythology and mysticism is less understood by the younger people, many who are Christianised,

> *The people who knew the exact practices and traditions that needed to be followed in relation to the rituals for rain making are no longer there. It is our great grandparents who possessed this knowledge, contemporary generations are merely amateurs, unable to follow the exact traditions of old. In any case, we now prefer going to church* [SSI, man, Nyanga]

> *This whole talk going on about how our current fortune is tied to traditional practices and customs is all fake talk. When God created the earth, he gave us dominion over all the land without causing other bits of it to be sacred and prohibited. So whether or not I plough on 'sacred' land will not cause God to withhold the rains* [SSI, man, Buhera]

In a Nyanga study by Moore (2005), a Christianised woman had also expressed that God created *zvisikwa* (creation) without intending for them to be proscribed from use. Hers however, was a grievance against the colonially instituted Environmental Law. Shedding a different light, Magadlela and Hebinck (1995) show that even among the older

generation, some now favoured modern over traditional practices. In that regard, they cited a farmer, who openly criticised tradition by saying,

> *Everybody asks for rain in their own way. I am going to church, others go to the chief (to dance for rain)* (p. 57)

Yet, although the farmer above did not believe in dancing for rain, he still attended the dance sessions for rain, to show solidarity, he said. Then again, while some appeared secure in either their traditional or modern day beliefs; it was not unusual to come across participants who had lost confidence in both. I give an illustration of one woman, who had said,

> *God seems to have moved farther away from us, as for vadzimu, I don't know what happened to them* [SSI, woman, Nyanga]

In the end, whether traditionalist or modernist, everyone seemed to be, 'Waiting for the Rain'[183].

The changes are social

Political volatility

Evidence from the field suggests that rural people associate politics with conflict. They see politics as being linked to party conflict, land conflict, racial conflict, ethnic and tribal conflicts, and as being a source of mayhem. Although a woman from Nyanga had said, "*Telling the truth is not politics*", a lot of the participants had not made causal inferences that were related to politics. However, to establish the causal nexus between political volatility and environmental change one Buhera man had said,

> *The political instability and strife between people with political differences is what is causing the economy to be in shambles* [SSI, man, Buhera]

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[183] The zeitgeist is best caricatured by a fictional book called '*Waiting for the Rain*' by Charles Mungoshi. The Zimbabwean writer attempts to paint a picture of the aggressive battle between the Western and Indigenous epitomes. As the book closes, the characters are still '*Waiting for the Rain*' (see Mungoshi, 1975).

The impacts of political rivalry and dissention are not to be downplayed because local leadership from Buhera had also expressed concern over widening social divides fuelled by political differences. As part of their narrative, villagers were increasingly seen to respect only those leaders whom they shared the same political inclination with. Hence, if a *Sabhuku* summoned a villager to his courtyard to account for petty crime, in certain cases, the villager would simply disregard the order, particularly if the *Sabhuku* was known to support an opposing political party. This is only one angle of political strife. Another angle of political strife was presented by a woman seeking to explain how the land reform had contributed to the rainfall deficits in Zimbabwe,

> *The changes are being caused by the way we have ill-treated people with a different skin colour to ours. These people are the ones with better knowledge on how to bring about rain. They have a better thinking capacity than ours* [SSI, woman, Nyanga]

This response marked the climactic point in my field research. On one hand, as a young female Zimbabwean researcher I was glad to have met a reactionary and counter-revolutionary among the rural people so often thought to be passive. I say this because the participant boldly denounced land reform efforts that had been initiated under the guise of rewriting colonial injustices, albeit with political motive. Still, on the other hand, as a black Zimbabwean who is aware that rainmaking ceremonies were central to the Shona culture, I was saddened by the woman's response. For as stories are told,

> *In colonial times, colonial masters in some areas mobilised native people to the mountains, commanding them not to come down until their gods had sent down rain. And sure enough it rained* [SSI, man, Buhera]

In concluding this section it is important to note the courage of the participants who submitted causal inferences with political intimations especially at a time when the residual political tensions from the 2013 presidential elections were still very tangible (see Chapter 5).

Anthropogenic causation

Knowledge is not always book knowledge. Some knowledge may be indigenous knowledge passed down from generation to generation through oral tradition. While other knowledge is simply thought to be common sense, as said by one rural man from Mupfurudzi Resettlement Scheme cited in a separate study,

> *I think, there is no one who we can say does not have (any) knowledge. If a person knows that when it rains they have to go to the field (to) sow their seed and apply their fertiliser, then that person has knowledge. One should also be able to distinguish their property from that of others. For example, you see that goat there: if you can tell whose goat it is, then you have knowledge* (Mudenge, 2008, p. 16)

However, the ability to match certain ecological changes to anthropogenic causation is more than just indigenous knowledge or common sense. This knowledge often entails book knowledge. On the question of book knowledge, male and female participants in my study had shown differences in their grasp of anthropogenic causation. When asked for the causes of environmental change, more women than men had been inclined to simply say, 'I don't know'. Below, my interview notes from two community gatherings demonstrate women's reticence.

Interview Notes 1: Nyanga

Interviewer (Me): Is there anyone else who wishes to make a contribution? Women you have been very quiet?
Woman: There is someone behind you who is lifting up their hand
Interviewer: Oh, where is she?
Woman: The man behind you is lifting up his hand *[People laugh]*

Interview Notes 2: Buhera

Interviewer (Me): So you are all in agreement that the environment is changing. What do you think are the causes of the changes?
Woman: The wind is too much. In the event of promising rains, the winds come and drive the rains away. I do not know if I am right or wrong?
Interviewer: In this forum, no response will be treated as incorrect. All responses are welcome as they carry equal weight towards the success of this study
[Women nod collectively as if put at ease by the interviewer's non-segregation of responses]

The differences in gender qualifications seen in the methodology chapter (see Chapter 5) may in part explain why more men than women seemed more confident to give rationale backed by book knowledge for causality

In spite of the deafening silence of female voices in this section, there had been several interesting suggestions put forward to explain the causal nexus of environmental change. Out of the sample in Buhera, one man had attributed the erratic rainfall patterns to trends in evaporation which he said were being caused by cutting down sacred trees. Setting aside his parochial view, his ability to construe the cataclysmic effects of deforestation towards the carbon cycle shows that he is somewhat knowledgeable. A young man from Nyanga had also spoken of population expansion, which he said was resulting in more households, more land clearing, more house fires being lit and subsequently more carbon dioxide production. While he could have expanded his explanation to include that, more land clearing would reduce the plant cover required for carbon sequestration, resulting in cumulating greenhouse gases, and more global warming, his answer suffices to give the broad impression of the impacts of rapid land cover change.

An emotional case from Buhera was that of Diamond mining as the causal inference for changes related to water pollution. Those from the Chako *bhuku* (jurisdiction) live near the Save River and rely on polluted water for drinking and other domestic use. The villagers had become victim to discoloration and distastefulness of water, including a number of health problems ensuing among humans and livestock. I remain eternally scarred by the words spoken by the young man who had raised this point,

> *We watched them as they (ZELA) entered the river wearing protective gear in the water that we drink and bath with* [FGD, man, Buhera]

ZELA is an environmental law agency that has been playing the prosecutory role in the case of the villagers vs. the Diamond Mining Companies.

Over and above, the young men had seemed to want to use FGDs as a platform to shine. Impressively, a young man from Nyanga had actually stated the term climate change,

We are causing climate change by cutting down a lot of trees [FGD, man, Nyanga]

In response, I had said,

So you aware that through certain acts we humans can contribute towards erratic rain?

Not many people seemed to want to ponder along those lines, as many, mostly the old, were convinced that erratic rain was a bad omen, and the work of angry gods. In a separate setting, I also engaged in a similar exchange with a young man from Buhera. He had spoken of the weather changes being a result of industrial activity. I had asked him to shed more light on his point seeing as there were no industries in Buhera. In support of his claims, the young man mentioned sugar cane production in Chiredzi (approx. 270km away). He stated how the carbon dioxide fumes produced through cane processing would also affect Buhera due to its close proximity to the town. Be that as it may, the final response in this section differs starkly from the well-reasoned efforts of linking anthropogenic causation to environmental changes by most young men,

I am no scientist; I don't know what's causing the changes [SSI, man, Nyanga]

In hindsight, that some people within rural communities had the knowledge of the negative human influences upon the natural environment demonstrated a level of environmental awareness. Yet, as argued by the *Sabhukus* in Buhera, having the knowledge of ecological impacts does not always stop people from carrying out harmful practices.

Summarising Part Two

Part two displayed rural men and women's perceptions of causality. From what was shown, three ontological worldviews seem to inform the perceptions of the rural men and women. These are, 'the changes are inherent in nature', 'the changes are divine' and 'the changes are social'. The most dominant of the three standpoints is that, the changes are divine. The participants felt that most of the environmental changes (particularly those biophysical) they experienced were an indication that the ancestral spirits were displeased by the people's abandonment of tradition, as many now

favoured modern ways of living. Paradoxically it has been said that custom in Africa is stronger than domination, stronger than the law, stronger than religion (see Lightfoot-Klein, 1989) yet the section at hand has shown people who though morally bound to tradition are being suctioned into a modernised present[184]. With respect to both tradition and modernity, on one hand, the spectral spirits dwelling in the land have been vital in the sense that they promote the preservation of natural resources, yet also on the other hand, Christianity embraced in its fullness equally encompasses a stewardship concept towards natural resources. Moore (2005) affirms that the two traditions share a sense of what constitutes respecting nature.

Nonetheless, the attribution of risk to supernatural beings is seen through the modern views of hazards as being none sanitised (see Chapter 3), for this school of thought suggests that humans have a measure of control over their own fate. As such, what would be considered by the modern views of hazards as being a more sanitised outlook on risk is the ontological view that 'the changes are social'.

Shown in part two however, is also that the bandwagon of progress in rural areas seems to be asymmetrical. Rural men and women are not being blended in equally onto the new page of time, as there are compulsory elements that come along with modernising societies (e.g. education), that seem only to be privileging more men than women. This is an assumption stated solely based on participant demographics (see Chapter 5) and the rationalisations given for causality. By and large, the view that the 'changes are inherent in nature' had been said only by a few.

Conclusion

In total, Chapter 8 presented fieldwork findings so as to answer the first and second research questions. In terms of RQ 1, various environmental changes were cited by the rural men and women which were both physical and social in nature. In terms of RQ2, the rural men and women had attempted to explain the causality for the environmental changes.

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[184] By citing modernity in this way I am not referring to the post ww2 Western development thought, rather I refer only to modernity as signified through the modification of traditional systems according to the contemporary demands of such systems and practices (see Gyeke, 1997). As Gyeke clarifies further modernity in its unembellished sense does not mean Westernization.

In the next chapter, more research questions, that is, RQ3 and RQ4 will be explored also based on participant voices.

Chapter 9: Coping Mechanisms and Casualties of Environmental Change

Introduction

In Chapter 8, I explored participant's concerns over the changing weather elements (physical changes) which they said were making farming livelihoods unviable and generating food insecurity (social changes). Partly as a result of the ensuing social changes, which are also the result of economic failure, rural people are being pushed deeper into precarious positions. Subsequently, any further changes to the weather are felt more intensely. The coalescence of physical and social changes seen through this matrix reinforces the argument that environmental change encompasses a series of changes which are both physical and social in nature. As part of adaptation efforts, Chapter 8 showed the rural people attuning their belief systems and lifestyles to cope with environmental changes and preserve life.

Designed to answer research questions three and four, as stated below, this chapter will look to participant voices to show how rural men and women have been coping with environmental changes and who among them has been the most vulnerable to the environmental changes.

Research question three seeks to answer the question:

RQ3   What coping mechanisms have rural men and women adopted in responding to environmental change?

While research question four seeks to answer the question,

RQ4   Who has been the most vulnerable to environmental change, the rural men or women?

While the main aim of this chapter is to recount the experiences of environmental change as narrated first hand by the participants, occasionally, external voices will also be introduced that either reinforce participant claims, or elucidate participant claims. Similar to Chapter 8, examples of external voices that will be featured include, peer

reviewed academic publications and reports from development organisations that speak from a practitioner standpoint yet, focus will remain on participant voices as it is their voices that matter most in this study.

Part One

Coping Strategies: Stories of survival

Watts (1983b), argued that peasants do not respond to (food) crises arbitrarily but do so serially based on perceived intensity. This idea was supported by Corbett (1988), by deWaal (1987) more recently again by deWaal (2004). In terms of the logical sequencing of rural people's coping strategies I draw on deWaal's initial study of the 1984/85 famine in Darfur (see deWaal, 1987), and I adapt his stages of coping to present my findings (see fig 23). I now speak in detail to this framework for analysis.

Figure 23: Three stages of coping strategies

1. **First stage of hardship**
   - Early planting
   - Conservation farming
   - Use of irrigation to increase water storage
   - Vending/ Petty trade
   - Working as a day labourer

2. **Second stage of hardship**
   - Surviving on wild fruits
   - Asset attrition – sale of livestock and crucial assets
   - Working as a day labourer in a way that interferes with tending one's own fields
   - Illegal mineral panning

3. **Third stage of hardship**
   - Commodification of nature (selling trees)
   - Trapping fish and birds using poison
   - Reliance on aid
   - Absolute starvation

Adapted from deWaal (1987)

While deWaal had initially called them the three stages of destitution, I prefer to call them the stages of hardship. This is because the coping strategies used by the rural men and women in Zimbabwe reflect both precautionary and crisis strategies. Precautionary strategies are not necessarily hardship distinctive but are often used in the early stages

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of hardship, whereas crisis strategies are hardship distinctive as often used in the critical stages of hardship. Ordinarily, crisis strategies have spin off effects which are harmful to the physical or social environments. In the name of survival the spin off effects are usually disregarded. As has been shown elsewhere in this thesis, this is the case in Zimbabwe where high levels of poverty have caused people to venture into unsustainable means of survival (see Chapter 7).

First stage of hardship

Early Planting

Early planting is a farming practice involving planting with the first rains. It is a precautionary strategy used to prevent crop failure due to possible rainfall shortages in the later stages of the growing season. Some participants reported using this coping strategy. Among them was a man from Buhera, who said,

> *In our traditional ways of forecasting weather, if we experienced unusual chamupupuri (wind) just before maenza (rainy season) we knew that this was signaling very high temperatures and the possibility of inadequate rain, so we would plant with the first rains* [SSI, man, Buhera]

The success of early planting is dependent however on the availability of appropriate input and animal draught power. For example, short season maize varieties (hybrid maize seeds) are known to work better with early planting, while animal draught power is known to facilitate a timely seedbed preparation for early planting. Early planting is in certain cases precluded by poor access to both. Another participant who is a man from Nyanga, highlighted that,

> *Around September/October when the early planters are preparing to plant, some late planters will be in Nyamaropa working in people's maize fields, in Nyakomba at paprika farms, or in Bende working in potato farms instead of tending to their own fields. Their hope would be to acquire money to purchase input, or to later on borrow oxen and ploughs from the early planters* [SSI, man, Nyanga]

Tending to other people's fields in ways that interfere with tending to one's field falls under the second stage of hardship. Nonetheless in recent times, early planting appears

to have become harder for rural people to use, as the indigenous knowledge systems and scientific weather forecasts that they rely on are yet to have a grasp of the new and unfamiliar weather conditions that are surfacing. As a result it has become increasingly common to come across people who have become confused about the usefulness of early planting,

> *Some plant early, some plant late. It is a 'lose-lose' situation, no one is guaranteed of good yields* [SSI, woman, Buhera]

Conservation Farming

Conservation farming (CF) is an alternative farming technique to conventional tillage. It is a precautionary strategy that focuses on reduced disturbance of the soil through zero tillage, the conservation of soil moisture through the retention of plant residue and the preservation of soil nutrients through crop rotation. CF is believed to be time and energy effective, as less land is cultivated as opposed to with conventional tillage. It is believed further to be cost effective, allowing even resource poor farmers without animal draught power to use it. In spite of this, the rate of adoption of CF among participants in Nyanga seemed lower than among those in Buhera. Participants across the board noted however that they were under compulsion from extension officers and development practitioners to adopt CF. In images 27 and 28 below are examples of CF techniques captured from a GOAL demonstration site where farmers are taught on CF in Buhera. As seen in the images, farmers can prepare land by opening planting basins such as holes or furrows.

Image 27: **Hole basins**   Image 28: **Furrow basins**

From the key informant interviews held with GOAL officers, it was clear that they believed that CF offers farmers a better chance at good harvests regardless of the vicissitudes of the weather. There are studies that share similar sentiments with GOAL even to the point where they consider CF to be a panacea for farming (see Twomlow et al., 2008). Pitted against the CF optimists are studies that dissuade academics and practitioners from selling CF as a silver bullet (see Corbeels et al., 2010). The reason for this is that CF is knowledge intensive. People ought to be equipped with the right information, including that yield benefits from CF are mostly realized in the long-term, and when crop rotation is applied, whereas costs and efforts are immediate. This must mean that in food crisis situations that arise shortly after implementation, CF may not necessarily guarantee farmers a bumper crop.

Irrigation

Simply put, irrigation is the artificial supply of water to plants at regular intervals to support plant growth. I list irrigation as a precautionary strategy within the specific context of Third World countries where many farmers rely on rain fed farming. Accordingly, the use of irrigation would be precautionary in the sense of buffering these farmers against water scarcity. Taking note that the dimensions of water scarcity are many, what is important here is the absence of the effective rainfall needed for plant growth. As discussed in the initial description given of Zimbabwean rural areas in Chapter 7, most are found in semi-arid areas that are subject to frequent mid-season dry spells (see Chapter 1). However, out of the total surface area of land under irrigation in Zimbabwe, 7% is rural (Mutisi, 2009) as opposed to 82% belonging to commercial farming areas (Poulton et al., 2002).

Detailed information on irrigation regarding my case study areas was given in Chapter 7. For the purposes of advancing this section I will revisit some of this detail. To start with, Gunura (Buhera) has access to one irrigation scheme which is currently inoperative. When it was operative, only those who were allocated land at the irrigation site could access irrigated water. Chapatarongo (Nyanga) on the other hand has no irrigation scheme. In this area, people access neighboring irrigation schemes only to provide labor and to purchase grain. The use of irrigation as a coping strategy in Gunura and Chapatarongo is thus two pronged. In terms of participant views on irrigation, people

from Gunura had mostly complained about a nonfunctioning irrigation scheme, as seen in the response of the woman below,

Yes we may plant drought resistant crops like mhunga (pearl millet) and mapfunde (sorghum) to eat, but we need to move beyond living from hand to mouth. This area is very dry, without irrigation we cannot farm intensively. We have an irrigation scheme here but it does not work. It stopped working a long time ago when my daughter Rambisai was only 2 years old. Ndaimu bereka kumusana Rambisai ndichienda naye ku madiriro (I used to carry Rambisai on my back when I was going to the irrigation plots). She is now married, has her own little baby, and we are still waiting for the irrigation to be fixed [SSI, woman, Buhera]

Equally, one Buhera *Sabhuku* had also said,

Ma dzi Sabhuku have a grievance against hurumende (the government). How do they expect us to lead people who are hungry? Hungry people are rebellious. Hurumende should fix the irrigation to make our jobs easier for us [FGD, man, Buhera]

Participants in Chapatarongo had on the other hand complained about not having their own irrigation scheme, and had thus mentioned working at the Nyamaropa irrigation in ward 12,

We go to Nyamaropa for maricho (food for work). We do any work we are told to do and are paid at the discretion of the hirer. Typically a days' work is equivalent to 1 gallon of magwere (maize). This is how we have been surviving lately. We have been neglected by the government that has not built us our own irrigation scheme [SSI, woman, Nyanga]

Other participants had cited buying grain at Nyakomba irrigation in ward 11,

Muno mu Hwesa tine dambudziko re kushaya mvura (in this area we have a problem of water scarcity), as a result we cannot grow enough to eat. We end up having to go places like Nyakomba to buy grain [SSI, woman, Nyanga].

As to how much was charged for grain the participant above had stated that,

> *The multiple currencies that are in use nowadays confuse a lot of people in the rural areas. So depending on how much maize you need, you can be told to come with a goat, or even a cow in exchange for the maize.*

The Chapatarongo participants noted that their involvement at the irrigation schemes averted total hunger, but in the process of trying to reach these areas they often had to weather other constraints. A man narrated how most people walked a journey of about 4 hours on foot to get to Nyamaropa. Walking was an income smoothing way to evade incurring transport expenses[185]. Transport costs to Nyamaropa could at most amount to $1 one way, but many people could not afford this.

Vending/Petty Trade

As part of their survival strategies rural women grow and sell vegetables. The growing of vegetables (market gardening) for the purpose of vending them is a precautionary strategy. Most small scale market gardeners in Zimbabwe are women. Mainly the primary vendors of the produce, the women growers also supply third party vendors who in most cases are also women. Fruit and vegetables are perennially on demand. So in terms of effectiveness, market gardening can be a good source of daily income for the many women who have limited sources of income.

Calling attention to the challenges faced by the women in vending, market problems were the prime. With respect to the supply and demand factor, most women had expressed that they often grew the same produce leading to supply exceeding demand,

> *Once I ended up with 50kgs of mufushwa (dried vegetables) because I had no one to sell my fresh vegetables to. I also ended up giving away some of the mufushwa. It was such a loss* [FGD, woman, Nyanga]

> *Many of us grow tomatoes, but for them to sell we end up reducing the price. However, say you sell 5kgs of tomatoes for a $1, it will take long before that*

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[185] According to Morduch (1995) poor households can smooth income by making choices to save money to protect themselves from adverse income shocks.

customer returns to buy more tomatoes. So you still end up with a heap of rotting tomatoes and no profit [FGD, woman, Nyanga].

To ease the problem, women resorted to outside markets. In Chapatarongo, some women reported feeding their produce to the *musika* (market) at Nyamhuka, a Nyanga township which is roughly 70km away and even supplying the *musika* in Mutare which is a further 107km from Nyamhuka. Women in Gunura had mainly cited nearer *misika* like the one at Birchenough Bridge which is less than 5km away and Nyanyadzi which is a further 25kms away from Birchenough Bridge. Overall, the larger and farther markets are not easily accessible. Nyanga and Buhera women had cited transport costs as limiting factors to reaching larger markets.

Aside from market problems, water challenges also hinder women from maximizing their effort at growing vegetables. While the control of women's proceeds by husbands was in rare cases also seen to act as a disincentive for rural women to fully exploit their entrepreneurial potential through vending. At a FGD in Buhera, women had reassuringly said that men seldom asked after proceeds from vegetable sales, for they were confident that the money would be put towards buying household groceries. The money was also used for school fees. At the time of fieldwork, rural school fees for primary school were said to have been $16 per term and $50 per term for secondary school. Many participants had reported that the cost of school fees was beyond their reach.

Second stage of hardship

Gathering Wild Fruits

Wild fruits have long been part of the regular dietary intake of rural people. They are also a livelihood means, where people gather fruit to sell. Wild fruits are moreover a coping means used to avert starvation. Following the 1903 and 1912 droughts for instance, Chigodora (1997) claims that the indigenous people had boycotted food handouts from the colonial government, choosing instead to survive on wild fruits.

When people survive largely on wild fruits, we see wild fruits converting quickly from precautionary to crisis strategies. Some participants in my study had recounted that due to low yields and financial struggles, their households were now compromised on calorie

intake, at times eating only one square meal per day. To boost their strength for physical work, wild fruit intake would be increased. Women in general spoke about how fruits are incorporated into the family diet, especially in hard times,

> *When things get really tough we eat muwuyu. By muwuyu I do not only mean the fruit, but the leaves as well. We eat the leaves as a vegetable. The leaves are ground before cooking. When cooked, they look slimy like derere [okra] and they are reddish in colour* [SSI, woman, Nyanga]

> *To alleviate hunger we eat mun'ando. We cook the seeds in the pods. These look like nyemba (lentils) when cooked* [SSI, woman, Nyanga]

> *In periods of low food we survive on eating fruits like masawu. We dry the fruit, and then pound it to produce a powder that we then mix with water to make porridge. If left to ferment over a couple of days the porridge makes a great beverage* [SSI, woman, Buhera]

Based on deWaal and Whiteside (2003), to the processing of wild fruits into meals is an important skill that is passed down from mother to daughter, and without which nutritional value would be compromised. Hence there is need for specialist evaluation of genetic potential, as well as post harvesting, processing and marketing essentials for these fruits if they are to effectively benefit rural people during crisis.

Image 29: Muwuyu/ Baobab (*Adansonia*) fruit

Image 30: Mun'ando/ Red bauhinia (*Bauhinia galpinii*) fruit

Image 31: Masawu/ Jujube (*Ziziphus mauritiana*) fruit

Photo credits for Image 29: Brett Chiweshe and for Images 30
and 31: Braynham Goredema

Linking wild fruits to traditional mythology

In the Shona culture, wild fruits are significant in that traditional mythology links some
fruit trees to ancestral spirits (Risiro et al., 2013). An elderly participant had said that
prior to impending drought ancestors would ensure an abundance of wild fruit supply,

> *Entering into maenza (rainy season) if we see fruit trees like mizhanje and
> mihacha loaded with abundant fruit, then we know that vadzimu (ancestral
> spirits) are cushioning us for an imminent drought* [FGD, man, Buhera]

Due to their spectral ties, some traditional rainmaking ceremonies were also carried out
under wild fruit trees like *mionde* (Sycamore tree). This supports the point outlined in
Chapter 8, where a *Sabhuku* under the section on causality had expressed concern over
ancestral spirits fleeing when trees with ancestral ties were cut down.

Asset Attrition

Asset attrition is a crisis strategy. When engaged by people in my study, this coping
strategy generally involved the sale of assets to buy grain and other food requirements.
Most sales were distress sales where assets, mostly livestock were sold in an urgent
manner and often at a loss[186],

> *We are hustling to make ends meet. Those with cows are selling their beasts to
> get by* [SSI, man, Buhera]

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[186] Presently in rural Zimbabwe, cattle are being sold for as little as $30 versus the market value of $400
(see Nyangani, 2016).

With this series of bad harvests, money is hard to find. A lot of people mu Hwesa trade livestock for maize. An adult goat can be exchanged for 20kgs of maize [SSI, man, Nyanga]

It is interesting to note that most transactions involving household assets cannot be carried out without the approval of a man because animal possessions are gendered[187]. While some men would not mind if a woman sold a chicken without his consent, others do. In one FGD in Buhera, a woman had mimicked her husband's apparent typical statement, "*did you come with a chicken from your mother's house*". In the process of trying to understand cash or barter trade transactions involving the gendered divestiture of livestock assets I came across a woman in Nyanga with an exceptional story. This woman had taken responsibility for purchasing the five cows for their household. She had purchased the cows with the full knowledge that she would not be entitled to make decisions over them since cows 'belong' to the man. In narrating her story, the woman had said,

Since the children look up to you the mother when they are hungry, if you are a wise woman, you will prepare for such times. I bought 5 cows knowing that they would save my family in tough times such as the ones we are experiencing now. When onlookers see the cows however, they assume that my husband bought them, and they applaud him for being a very organized man. But really, even though I bought them, they remain family assets. [SSI, woman, Nyanga]

Clearly livestock are the main asset used to manage risk in rural areas. This risk management function could be regarded as an unsophisticated version of consumption smoothing, except that livestock are a high risk investment. They are liable to risks such as starvation and disease. An important thing to note however is the government's reaction to this risk management function. When I had asked for comments on the subject, the government representative from the organization heading vulnerability assessments (ZIMVAC)[188] had responded by means of an example,

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[187] E.g. poultry belongs to the woman, and livestock to the man (see Part Two under this chapter).
[188] The purpose of ZIMVAC is to inform the cabinet on the livelihood change in the country on a year to year basis.

Matabeleland here, it's a very dry area but they have livestock. So we can't say everybody here is food insecure because they can sell two goats to buy grain. What matters at the end of the day is access, do they have access to grain [KII, Civil Protection Unit]

Mine dealings

In Zimbabwe, artisanal mining is often carried out illegally. By operating without legal mining permits, the artisanal miners are at risk of penalty if caught by the law. In turn, the lack of compliance with environmental regulations and occupational health and safety regulations by the artisanal miners presents risk to the physical environment and risk to life. Knowing fully well the risks associated with this coping strategy many people, mostly men, will participate in this activity in the name of survival. This is what makes it a crisis strategy.

Contrary to the realities of possible arrest, the potential harm to the physical environment or loss of life, in Buhera as in Nyanga, artisanal miners saw minerals[189] as benefactions from the ancestors. As such, according to their responses, *magweja* from Buhera mined *ngoda* (diamonds) in Chiadzwa from 2006 up until the time that an anti-illegal diamond mining crackdown had halted the mining operations in 2009. Since then, diamond mining has become highly controlled, and the mining fields are tightly secured. Only contracted mining companies have access to the mining areas. While a handful of women from Buhera had also excavated diamonds as *magweja* before the police crackdown, most women traded water and other high demand tradables with miners for diamonds.

The Buhera situation is a slightly different scenario from Nyanga where some alluvial gold deposits were discovered in the Nyamukondeza Mountains. The minerals are not protected as such, thus Nyanga participants had reported going to the mountains to chance fate as *makorokoza*. The problem that was cited by one male participant is that

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[189] Gold and diamonds make up part of the top five exports in Zimbabwe. Diamond mining in Zimbabwe is concentrated in the Marange District which borders with Buhera. Artisinal diamond miners in Zimbabwe are known as magweja. In contrast, gold concentrations are not restricted to a single area in Zimbabwe. Artisinal gold miners in Zimbabwe are known as makorokoza.

some big fish in the area had formed a syndicate that was blocking those not linked to it, from enjoying the ancestral gift of mineral resources,

> *A certain person is personalising the gold, calling himself the head of the syndicate* [SSI, man, Nyanga]

An interesting finding from Nyanga is that of women's dealings at the gold mines. The dealings entail physically carrying pails of water to the mine site in exchange for a muddy substance. Some female participants called the muddy substance *zvi mbwiti* and others *mutaka.* Both terms point to it being the waste substance left after separating the valuable fraction from the invaluable fraction of the gold ore. The separation process, which is known in the mining jargon as ore dressing, was called *ku wonga* by the female participants. I cite one of the female participants' narratives below,

> *We fetch water for the gold mines and in return we get mutaka (a muddy substance) which is a waste product from the gold mining. We process the mutaka through washing it and grinding it. If we find any gold residues we sell them to buyers from as far as Mozambique. We sell 0.1 gram for $3.50* [SSI, woman, Nyanga]

I had asked the participant how much money in total she had made from selling the gold residue. In response she had said,

> *I cannot even estimate how much, because every cent I get immediately goes towards the purchase of basic needs such as cooking oil, soap and food. So I have never saved up all the money I have received to see how much it would all amount to. But usually I get about 0.5 grams to about 0.8 grams worth of gold on good days.*

Supposing that the price of the gold residue was $3.50 per 0.1 gram as the participant had suggested, this would mean that after extracting say, 0.8 grams worth of gold from *mutaka,* the women get about $28 on the good days.

Third stage of hardship

Poisoning birds and fish, and cutting down trees to sell

I have put what are in my view, the most unconventional of all coping mechanisms used by the rural men and women under this section. The coping mechanisms are crisis strategies. The coping mechanisms involve tradeoffs between conserving nature and preserving human life in the here and now, and thus have ambiguous outcomes. I cite as the first example the deliberate use of pesticide spray in Buhera to trap little Quelea birds known in the local dialect as *ngozha*.

Image 32: Ngozha/ Quelea bird

The birds are considered pests by commercial farmer, yet for rural people they are a protein rich delicacy and a viable business. The birds are commonly sold as a snack along the Mutare – Chimanimani highway. Villagers from Buhera South travel to Nyanyadzi or Hot Springs along this highway to join other sellers of the *ngozha.* The ambiguous outcome lies first in the killing of what is known as a pest in one circle, and in another circle, a profitable catch. It is more like killing two birds with one stone, only that in reality it is killing one bird for double gain. The ambiguous outcome lies second in the polluting of the physical environment through heavy chemical spray for the purposes of preserving human life in the here and now.

In 1997, O'Flaherty described how the chemical use on Quelea birds along this region was done traditionally by industrial irrigators to protect their wheat crop. The study called this act a tragic and shameless expression of the power of industrial irrigators, revealed in the spraying campaigns mounted against the *ngozha* (p. 268). Yet, now we see the villagers also mounting spraying campaigns against the ngozha, albeit for the

purposes of commercialising its carcass. The fact that the now deadly bird from the chemical ingestion will be eaten by unsuspecting humans is all the more tragic. While O'Flaherty (1997) had called the chemical killing of the *ngozha*, a Tragedy of the Commons that is rooted in rapacious self-interest, I maintain that in the case of the villagers, it is a Tragedy of the Commons that is rooted in the need to preserve human life in the here and now. In Buhera, participants had also mentioned that the deliberate use of heavy pesticide was employed to trap fish, which when found floating lifeless in the river would be harvested and sold on the market. Again here, the ambiguous outcome lies in the polluting of the physical environment to preserve human life in the here and now.

More coping strategies with ambiguous outcomes and where nuances of tragedy can be derived include the acts of tree commodification. This was specified as a coping strategy in Nyanga as in Buhera. Participants had said that trees were chopped down, bundled up and sold for a $1 per bundle and $10 per cart load. Mostly men engaged in the sale of firewood. In this instance men cross the gender roles divide to gather firewood as a survival strategy, as firewood collection is usually considered women's work. It is an intricate balance because on one hand, men need the proceeds from firewood sales to fulfill their productive obligations of breadwinner. On the other hand, women need the physical firewood to fulfill their reproductive obligations of food provider. But in the event of firewood scarcity, it may be easier for men to diversify into other livelihood options while it could be harder for women to find alternative forms of energy. However, the question underlying both gender struggles could be whose trees are they? Goebel (1997) analyzed this question in her essay, '*Then It's Clear Who Owns the Trees*'. In her evaluation, the tenure systems and control structures in Zimbabwe's woodlands are faulty. Keeley and Scoones (2000) agree with this assessment. Subsequently, in the absence of defined boundaries, users and rules, what ensues is a Tragedy of the Commons.

Reliance on aid

Reliance on aid is a crisis strategy. Due to the increasing need for aid in rural areas, the question that was continuously raised by the participants is why there was so much selective targeting in distributing aid. In protest, the participants pointed out that

everyone was living under the same rainless sky, tilling the same barren land, in the same unforgiving heat. As the protest remarks kept pouring, I began to see the common theme permeating through; that of the exclusionary politics of aid.

The exclusionary politics of aid

As I pointed out in Chapter 7, relief programmes are reactionary or responsive to crisis, while development programmes are proactive, aimed at providing premeditated development needs. In Zimbabwe, selective targeting seems to apply in both cases. But no matter the objective, selective targeting in crisis environments invokes nuances of exclusionism. I go on to explore the selection criteria for aid noted by participants in my study.

1. *BMI as selection criteria to receive food aid*

Some participants had reported that Body Mass Index (BMI) was being used by some NGOs to select beneficiaries for aid[190]. The woman below had narrated her experience with this selection criteria saying,

The NGOs come with their food aid programmes and say, we are looking for thin people, those who are fat are not hungry. And yet I 'sip'[191] (kusveta) on vegetables to survive…And then they weigh you on their scale and say, Ah! Move over, you are not hungry [SSI, woman, Nyanga]

Body Mass Index (BMI) is a voluntary yet non-participatory approach of selecting aid recipients that some NGOs use as an indicator for malnutrition[192]. However evidence suggests that weight based measurements such as BMI can be deceptive in measuring hunger, as evidenced by the response of the woman cited above; some people may not outwardly show signs of starvation[193]. On consulting NGO X that uses BMI as selection

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[190] BMI is a measurement of body size in which a person's weight in kilograms is divided by the square of their height in meters. A BMI that is above average is often seen as a sign of high body fatness, whereas a BMI that is below average is seen as a sign of malnourishment.

[191] I use the word 'sip' for lack of a better word to translate the term from the original (kusveta). The original word denotes the act of swallowing something liquid and so the green vegetables eaten were eaten in a watery form with no starch or carbohydrates to accompany them due to privation.

[192] Among the selection criteria used for aid and noted by the participants were also medical conditions such as HIV/AIDS status, and the condition of being pregnant, but these are not listed and focussed on in this section. They are however useful selection criteria to explore in future research.

[193] An extremely low BMI is a very good measure of starvation at the extreme end of the spectrum. However, in terms of chronic hunger as the one seen in the rural people in my study, a BMI may not tell

criteria for aid, it justified that it used a variety of measurements concurrently with BMI. For example, the mid upper arm circumference (MUAC), as well as height for age, or height for weight indices.

> 2. *Absolute poverty as selection criteria to receive food aid*

In other cases absolute poverty is used as the criteria for selecting beneficiaries for aid. This is often a participatory approach through which NGOs sit down with community members, tasking them to nominate the most disadvantaged people in their community. From what I observed in Buhera, at times communities strategically select beneficiaries on a rotational basis[194]. This is seen to be a way through which all people get to benefit in the long run. This is because for many people, not meeting the criteria for aid is seen as a severe blow,

> *They say our beneficiaries are those with the most need and yet we are all in need, no one has rain falling exclusively on their land* [SSI, man, Buhera]

In spite of attempted solidarity efforts in to fool NGOs through fake beneficiary selections (exclusive only to some communities), the reality is that selective beneficiary targeting also creates divisions among community members,

> *People in this village are suffering. NGOs come to assist but in most cases target only a few beneficiaries per village. This causes tensions among us because I will be saying, "You are eating and I am hungry, your family is surviving mine is dying". In the end we do not see eye to eye* [SSI, man, Nyanga]

Through the poverty selection criterion, the 'not so poor' remain victims of exclusionary social capital. Ndulo and Walle (2014), confirm that in Zimbabwe, food aid administered by NGOs has been plagued by unequal access, which is common in aid programmes where there may be misperceptions in selecting beneficiaries, for instance based on

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much at all. The difference between starvation and hunger is that starvation is a severe condition of hunger which results in malnutrition and near death. Starvation is in most cases visible to the eye since victims are often emaciated. Hunger on the other hand is often a sheer lack of calories or under nutrition, and is in most cases imperceptible to the eye (see Ziegler, 2013).

[194] In Chapter 8, a participant was quoted as saying that often people such as one's relatives could vote a person as being very poor, resulting in them being listed as a beneficiary for aid. However, this favour would have to be returned so that the relative who voted can also benefit from aid.

poverty (also see Cox & Healey, 2000). Ndulo and Walle (2014) also explain that in Zimbabwe, the aid distributed by the government in the form of food aid, food for work or subsidized food distributions has been underlined by political motive as will be noted in the following section.

3. *Political motive as selection criteria to receive food aid*

Political motive as the selection criteria for aid, while unspoken, remains a very common method of selecting beneficiaries for aid. Participants associated this criterion with mainly government based aid,

> *Government schemes usually benefit maiguru's children. But, the donor (NGO) does not look at whether one is a child from maiguru or mainini. In the end, maiguru's children benefit both ways.* [SSI, woman, Nyanga]

Maiguru is a Shona term used often, but not exclusively to refer to the elder one amongst women in sibling relations, or the senior one amongst women's in-law relations. Mainini is the opposite of maiguru, and is therefore the younger or more junior woman in the above sets of relations. The *maiguru* being referred to in the woman's response however was the ruling party, and the *mainini*, the opposition party. In sum, government aid was being said to be given based on political party affiliation. In a separate setting, which was a single sex FGD also in Nyanga, one woman had raised her voice to suggest that the government gave bags of grain based on party card, but the other women in the group had looked at her in a way to silence her. Before keeping quiet, the woman had nonetheless disclosed that some government aid interventions amounted to as little as 12 bags of grain per village.

Commenting on the government's exclusionary custom in aid distribution, Munemo (2012) found that as early as the 1980s the government had used village and district members of the ruling party to identify beneficiaries for food aid. Beyond the identification of beneficiaries, Munemo argued that food distribution was and is still carried out by selected party members, while in other cases, political meetings or rallies are used as platforms to distribute relief rations (p. 2). Corroborating these claims, Moore (2005) showed that in 2002, the government had rewarded drought relief only to those rural constituencies that had given it electoral support during the elections. This

means that, the opposition strongholds were excluded from government aid. Mutami (2015) reported that the government system is further prone to abuse by corrupt elites and government officials who divert aid for personal use and financial gain. A NEWU key informant concurred with Mutami, arguing that the corrupt elites and government officials hoarded subsidized input and sold it at higher prices,

> *Those who are meant to benefit from subsidised input aid are not the ones who benefit. Those with political access can buy up to 32 tonnes of fertiliser at $15 per bag, when the price on the open market is $34. Whereas those with no political access cannot even access two bags of fertiliser at the subsidized price* [KII, NEWU]

In the process of the many diversions, it appears that in certain cases aid in the form of seed reaches beneficiaries when the optimum planting period has elapsed. In such cases, participants mentioned that due to hunger, the seed was consumed as food and not stored for subsequent growing seasons. A government participant had however brushed off allegations of politicized aid, insisting instead on what seemed to be an asset based criteria of aid,

> *We look at assets, assets that can be used to buy food. That is how we calculate to say that this house is food insecure.*

> *We know selling is not easy, but we are saying even if you don't sell – at least you have – you are better off than someone without. You can dispose of at least 1 beast to get 3 bags of maize, which will sustain you at least for the next 3 months* [KII, Civil Protection Unit]

Regardless of the claims that those without assets were given support, participants with no assets, still felt poorly assisted,

> *The government is struggling to help us. In a VIDCO with over 300 people only 10 people can get selected as beneficiaries of a program* [SSI, man, Buhera]

In concluding this section I cite a response given by one male participant. Having acknowledged the inefficiency of government aid, the participant had benefited more

from NGO aid. Out of 'sheer luck', he was one of the few who seemed 'strategically' positioned enough to qualify for most donor programmes. As he relayed his view, he had just received a bicycle from NGO Z, for volunteering as a monitor for OVACs (see Image 33).

Image 33: Bicycle from NGO Z, and lorry with bicycles to be delivered to volunteers

The participant had a slightly advanced outlook on the question of aid, as his view stretched beyond free aid. His view comprised the prospect of sustainable aid - aid which would go a long way in ensuring that communities were able to cater for their needs long after the NGOs had left the communities. He said,

> *Community projects should benefit everyone and if possible we want projects which will enable us the community to contribute meaningfully towards our own development. We just don't want to be spoon fed because we will soon forget the donor as soon as he leaves the village. For instance, NGO X has left. I know I benefited immensely from some of their interventions* since *2002 but right now there is nothing to show for it. If you ask my child about NGO X he does not even know it because it left nothing tangible. Now my child knows NGO Y which has come today* [SSI, man, Nyanga]

Summarising Part One

Before giving the concluding remarks for this section, I should highlight that in spite of the marked differences between Nyanga and Buhera, it was difficult to develop a typology of coping mechanisms that matched this diversity. Hence for the most part, the coping mechanisms noted in the two areas were similar, with few variations here and there. Attempting to concoct a typology of survival skills to fit into a preconceived

framework that reflects the diversity of the case study areas would distort people's actual experiences. Moreover, since I used a bottom-up approach of analyzing data, that is inductive, the thematic analysis of this study was entirely data driven. In Table 19 below, I give first a comprehensive list of coping strategies used by rural people. A few coping strategies on the list were not mentioned in this section but were listed elsewhere in this thesis.

Table 19: Comprehensive list of coping mechanisms used by rural men and women

Component of environmental change	Coping mechanisms by gender		Component of environmental change	Coping mechanisms by gender	
PHYSICAL	*Men*	*Women*	**SOCIAL**	*Men*	*Women*
Inadequate rain -Drinking water shortage (resource scarcity)	Irrigation, Conservation Farming	Irrigation, Conservation Farming Sand abstraction, Trekking miles in search for water	Hunger	Gathering wild fruits, Reliance on aid, Food for work (maricho/kusunza)	Gathering wild fruits, Women cook wild vegetables, tubers and roots, Reliance on aid, Food for work (maricho/kusunza)
Seasonal shifts	Early planting, Hybrid maize seed	Early Planting, Hybrid maize seed	No cash flow	Barter trade, Asset attrition – sell livestock	Barter trade, Asset attrition – sell poultry
Temperature increases	Conservation Farming, Planting drought resistant grains (small grains)	Conservation Farming, Planting drought resistant grains (small grains)	No jobs	Selling trees, Bird and fish trapping, Illegal mineral panning, Brick moulding	Vegetable vending, Craft work, Petty trade, Prostitution, Brick moulding
Low crop productivity	Buying grain, Reliance on aid	Buying grain, Reliance on aid	Unviability of farming	Off farm diversification, out migration	Off farm diversification, out migration (only possible now with changing times)

Zimbabwe is in a state of crisis. Some of the coping strategies used by the rural people are reflective of this context at large. Response mechanisms such as asset attrition, poisoning of birds or fish to sell, cutting down trees to sell, and the long term reliance on food aid prove the complexities faced by rural people in their extremity. Allowing for the role played by external actors such as the State and NGOs in promoting rural agency and resiliency, one key informant had said that these actors were also challenged by the

context of crisis. From a humanitarian point of view, the practical thing to do in Zimbabwe's crisis situation was to focus more on shorter term needs, as the question of looking far into the future was essentially academic and divorced from reality. Hence in response to food aid being given as needed, which was basically on a yearly basis following each harvest season, the key informant said,

> *A person in Tshlolotsho or someplace in the middle of Matabeleland North who is unable to feed his family probably wants to look for longer term solutions to survival without having to go through the debilitating thoughts of his name being on a food aid list somewhere, but the immediate requirement is that he needs to be assisted now* [KII, OCHA]

Even though the OCHA representative had implied impartiality in beneficiary selection, he had also said that many beneficiary assessments in Zimbabwe were undertaken mostly with women in mind. Meaning that women were priority recipients of aid rather than men:

> *That women are vulnerable is nothing new. Similar to all the something "headed households[195]", this is the norm. So in terms of the actual operalisation of food aid, these are the priority cases*

In Zimbabwe where poverty is a mass phenomenon, the exclusionary politics of aid seem to stretch from the discrimination of aid recipients based on poverty values that are sketchy, to the discrimination of aid recipients based on gender which isn't properly defined. Nonetheless, to sum up the selection biases of aid noted in this study, these are (1) pathology bias (linked to ill health e.g. low BMI) (2) poverty bias, (3) partisan bias and (4) gender bias. I am particularly at odds with the last 3 biases. Thus, the question that should be asked going forward is how the often failing coping mechanisms of individuals and communities can be fairly consolidated with the external aid given by the State and NGOs.

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[195] The something "headed households" being referred to here were the female headed households, child headed households, elderly headed households and the like.

Part Two

Casualties: Who does what, who has what, who decides what?

Asked in a combined sex group setting, the typical response to the question who is more vulnerable men or women was, 'everyone is vulnerable', which suggests that when communities are faced with questions from outsiders who they have no relationship with and are yet to build trust with they tend to exhibit solidarity. According to Mosse (1994), in such instances, community's use of generalised expressions such as, 'we think', 'we want' – are rhetorical expressions which suggest unity of opinion, but should not be mistaken for the absence of divergent opinions. In light of this, I sought to solicit individual opinions through semi-structured interviews and I also held gender analysis exercises.

In the individual interviews most participants continued to state that everyone was vulnerable. However there was some divergence as more women than men thought that everyone was vulnerable, while more men than women thought that women were more vulnerable.

Table 20: Participant contributions (individual interviews)
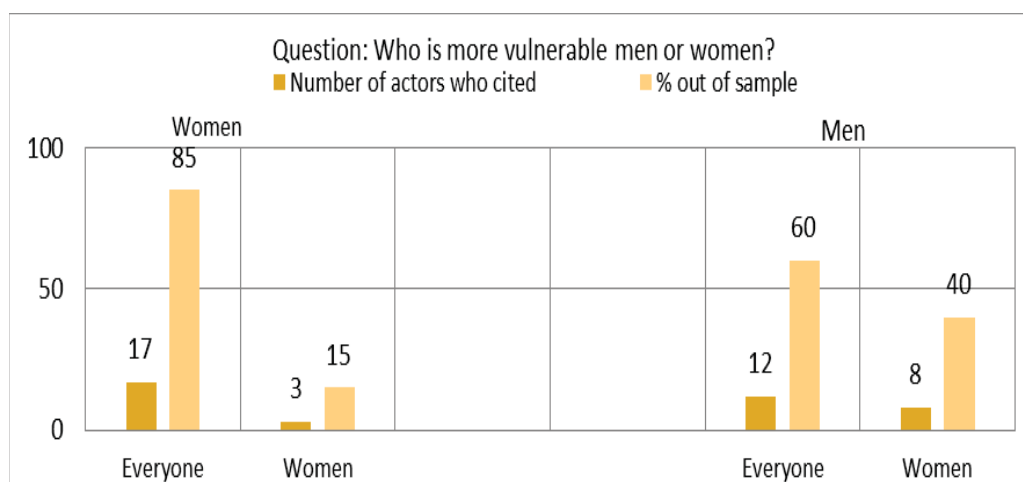
Some women who supported the overriding idea mentioned above that everyone is vulnerable argued this simply because everyone was being exposed to the same harsh conditions,

To tell the truth, we are all being affected especially by the problem of rain. The absence of rain is the absence of life for all living things [SSI, woman, Buhera]

You may never know how each one of us is distinctively affected because we all meet up at the buying points while buying grain. So you would not know whether one is buying to supplement what they already have or whether they are buying out of total need…But I think we are all suffering [SSI, woman, Nyanga]

These statements were very similar to the thoughts of some of the men interviewed:

There is really no one who we could say is better off. Yet when 'they' come with their programs, year in year out it is the same people who are being targeted. If NGO X comes the same people get help. When NGO Y comes, it is again the same people that get help, same thing with NGO Z [SSI, man, Buhera]

We are all hungry but on differing levels. Some may have only a portion of their crop affected and still have something to sustain their family with, while others may have their entire crop affected and have nothing at all to sustain their family with [SSI, man, Nyanga]

Although participants had implied that everyone was vulnerable, gender analysis exercises had produced a mixture of results which gave a more nuanced understanding in relation to the overriding response. In Chapter 5 I explained that gender analysis exercises were carried out in single sex FGD settings. An important thing to note about these settings is that they were conducted in such a way that women were able to express themselves freely in the absence of men. Similarly, unlike in the joint FGDs which the younger men had used to shine (see Chapter 8), single sex FGDs had enabled men to be simpler.

The images below paint differences in the ways men and women carried themselves in single sex FGDs, and flesh out in more detail this idea that everyone is vulnerable.

Image 34(1) and 34(2): Gender analysis, men, Nyanga

Image 35: Gender analysis, men, Buhera

Image 36: Researcher with women, gender analysis, Nyanga

Image 37: Gender analysis, women, Buhera

The gender analysis results will be displayed in the order of the question, who has what, who does what, and who decides what.

Who has what?

In the gender analysis exercises it was unanimously agreed that there were male and female possessions in the rural home. Female possessions mainly included kitchen utensils such as pots, plates, spoons and the like. Female possessions outside the kitchen included some homeware; however the sundries differed from household to household. It is also important to note is the allotment of domesticated animals by gender. As demonstrated in the previous section, women were allocated poultry. Married women only owned livestock in rare cases, such as if a daughter was married and the mother received *mombe ye umai* (mother's cow) as part of the *lobola* (dowry).

Another instance where a woman owned livestock is when her married daughter was pregnant with her first child. Here the son in law paid *mbudzi dze masungiro.* These are two goats paid to the mother and father for them to watch over their daughter in the last months of pregnancy. Although the father also received a goat, it was the mother's role to prepare her daughter for her first delivery through giving her herbs to open the birth canal. Due to the ceremonial undertones linked to the livestock given to the woman, culturally men have no rights over them. This is nothing like the cases where a woman may buy cows or goats with her own money or otherwise. As implied in the previous section and also in Chapter 4, for as long as such assets are purchased in the matrimonial home, they are often controlled by men.

In terms of the male possessions, men typically own farming equipment like hoes, ploughs and axes. Men also own equipment like wheel barrows and scotch carts. With regards to domesticated animals, men own livestock such as cows, goats and sheep. The list of the male possessions was simplified by one Buhera man who said, "*We own the musha, munda, vana na mai vacho*, translated to mean we own the home, land, the children and their mother

Image 38 illustrates the gendered division of animal ownership in Zimbabwean rural areas.

Image 38: The gendered division of animal ownership in Buhera

However, in spite of who owned what, some women participants had stressed the benefits of the conjugal contract in risk sharing,

A woman with a husband who gives her $10 is better than a woman with no husband at all [SSI, woman, Buhera]

My husband sends me the little money he earns in Harare [SSI, woman, Nyanga]

Table 21 sums up the ownership and control of assets between men and women in Zimbabwean rural areas.

Table 21: Ownership and control framework

	Ownership		Control	
Resources	**Men**	**Women**	**Men**	**Women**
Land	✓		✓	
Livestock (cattle, sheep, goats)	✓		✓	
Poultry (chicken, turkey)		✓		✓
Farming equipment (axes, hoes, ploughs)	✓		✓	
Kitchen utensils (pots, dishes, spoons, plates)		✓		✓
Other household equipment	✓	✓	✓	

In this table we can see that men control most of the productive resources, including the animals for traction (work animals). Women have access to these resources, but generally cannot make decisions concerning them. Women's actual leverage and the degree to which they access the resources differs however from household to household.

Who does what?

There were varied responses concerning who *does what?* In as far as the domestic work is concerned; the general consensus among women seemed to be that they did most of the work:

> *There is 1 borehole in Mapara. Households give each other turns to fetch water on a weekly rotational basis. As an example, 4 to 5 households may fetch water per day. When their turn is over they have to await their next turn which may fall 5 to 6 days later. While awaiting our next turn, my fellow women and I walk a long distance to Matize River to fetch supplementary water for domestic use. In the same trip, we often carry laundry for washing at the river* [FGD, woman, Nyanga]

> *Musha mukadzi (The woman is the home). We do most of the work in the home to cater to the welfare of our husbands and children. From the time we are young we are taught that this is our responsibility. And when we get sent off to be married, madzitete (paternal aunts) warn us of the repercussions that follow when we fail at this responsibility…Yes, for some women are divorced by their husbands for failing to cook, look after the children or even keep the house clean* [SSI, woman, Nyanga]

> *Women are responsible for everything. They cook, do dishes, wash clothes, and look for food when men are away. Women teach children what is good and what is bad, and make decisions when men are away* [FGD, woman, Buhera]

Emphasising the last response, many women had suggested that they were in charge of all domestic work, and could make most decisions in the home only when men were

working far away from home. Disaggregated by gender, the summary of the core chores carried out by men and women in the rural home is shown below.

Table 22: Activity framework

Role /activity	Men	Women	Collective
Tilling and crop planting			✓
Weeding and harvesting			✓
Watering the garden		✓	
Thatching houses	✓		
Brewing beer		✓	
Brick making			✓
Repairing fences and kraals	✓		
Casual labour			✓
Migrant work	✓		
Laundry		✓	
Cooking		✓	
Fetching firewood			✓
Fetching water		✓	
Herding cattle			✓
Petty trade		✓	
Building	✓		
Carpentry	✓		
Welding	✓		
Child rearing		✓	

Alone, an activity framework cannot show how the major roles are executed sequentially; hence I also cite a times/role framework further below.

Table 23: Times/role framework[196]

Women	Time (hours)	Men
Wake up	0:400	Sleep
Sweep the yard, wash dishes from supper	0:500	Wake up
Fetch water	0:600	Inspect livestock pens
Make breakfast, prepare children for school,	0:700	Eat
Clean the house	0:800	Depending on season herd livestock
Do errands like laundry, fetching firewood	0:900	Do errands like kraal repairs, thatching
Go to the fields	10:00	Go to the fields
In the fields	11:00	In the fields
In the fields	12:00	In the fields
Prepare lunch	13:00	Eat
In the fields	14:00	In the fields
In the fields	15:00	In the fields
In fields	16:00	In the fields
In the fields	17:00	Pen livestock
Prepare supper	18:00	Eat
Relax with family	19:00	Relax with family
Sleep	20:00	Sleep
Sleep	21:00	Sleep
Sleep	22:00	Sleep
Sleep	23:00	Sleep
Sleep	24:00	Sleep

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[196] Women seem to not have a fixed time for eating breakfast and lunch, but seem to have supper with the family. Men on the other hand have more fixed times for meals, hence these are categorically specified.

In the male discussions, men tended to agree that women did a lot of work in the home. Some men had however testified that they were now assisting their wives with cumbersome workloads,

> *Nowadays we help women with tasks such as fetching firewood and in some cases we accompany women on these errands. We do this not only because of the now increasing scarcity of resources, but also for security reasons. There have been escalations in cases of rape and attacks on women as they venture further away from the security of the homestead* [FGD, man, Buhera]

> *Here in Makoma we walk a distance of up to 6 hours to get to the nearest river, which is Matize River. The whole day is spent at the water point, most times watering the livestock. We often return home as late as 8pm. If it is the woman who would have gone, she does not come back to start preparing dinner. In most cases you will find that the man would have taken up the pots and cooked* [FGD, man, Nyanga]

The male narratives imply a sharing of burden in hard times. The smoothing of hardships in the conjugal home through role sharing was also noted by a woman, who said,

> *When you are two in the house (husband and wife) you can share ideas plus there is more manpower. When searching for money, one goes in that direction and the other in another* [FGD, woman, Nyanga]

Together, the responses highlighted show how risk conditions can have a bearing on gender relations through either (a) strengthening the interdependence of gender roles, or (b) influencing gender role reversals. Albeit spoken in a semi structured interview, the next response captures these ideas very well,

> *Kunze kwakawoma (Things are tough) sometimes my wife travels as far as Beitbridge to sell her crafts... She weaves mats and baskets. Left with the children at home, I cannot just look at them and fail to feed or bath them. I cannot tell my wife to stay home because the returns from her crafts help a lot in this house* [SSI, man, Buhera]

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Who decides what?

Men were said to mostly have the ultimate say in decision making in the home. Even in the homes where women were consulted in the decision-making process, and in the homes were women made some decisions when men were away, men still had the final say. Women reasoned that those men who often allowed their wives to totally take over in decision making were regarded by society to be under a spell. Society often ridiculed these men saying, *akadyiswa mupfuhwira[197],* meaning he was given a love portion.

In the group discussions, another point that raised was that in certain cases, women were unable to make decisions even over their personal income or hard earned money, implying that men controlled their wives' income including their own. However, the contrary is also true. In other cases, men allow their wives to decide how to use proceeds from their vending activities, as we saw under the section on coping mechanisms. Still on the subject of women lacking decision making rights, another female participant had raised a delicate case saying,

> *Women have no right to divorce their husbands. Culturally, a woman cannot serve her husband with gupuro (rejection token)[198]. So a woman will stay in a forced marriage waiting to be divorced by the man* [FGD, woman, Nyanga]

While this has been the experience of some women, in the group discussions, the female participants had argued over whether all men imposed a military rule over their spouses. With some women insisting that there are men who considered their wives as equal partners and still maintained *hu Samusha* (headship). Men in both Buhera and Nyanga also agreed that while they were the *Sa mushas* tasked with the burden of *kutonga musha* (ruling the home), they often respected the views of *wa mai* (woman of the house). To show that not all women lacked decision making rights, an extension officer in Buhera took me to a poultry field day, where a certain woman's poultry farming was being celebrated. At the field day I met with the poultry farmer to discuss her success. The woman had expressed gratitude to her husband for allowing her to

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[197] To tame their husbands, some women use a love portion, known in the Shona language as mupfuhwira.

[198] In the Shona culture, gupuro is a rejection token given by a husband to his wife to symbolise the dissolution of their conjugal contract. A rejection token is given to a woman in the presence of a witness.

make her own decisions regarding her farming project. "*Admittedly*" she had said, "*not all men mu nharaunda (in the area) are as liberal as my husband*". Indeed, at that the field day I saw women being given the platform to speak, as men listened intently (see Image 39).

Image 39: Poultry field day, Buhera

Image 40: Researcher with poultry owner, field day

Summarising Part Two

At the start of this section, the overriding response that 'everyone is vulnerable', was heard coming from most rural men and women. As the section progressed, gender analysis questions asking, *who does what*, *who has what* and *who decides what?* were backed with findings, giving a more nuanced view of gendered vulnerabilities. Through examining *who is affected by what changes, who gains, who loses?*, the next chapter will in part flesh out further the overriding response, that everyone is vulnerable, and the results from the gender analysis.

Conclusion

In closing this chapter, I make a comparison between female and male vulnerabilities by drawing on the word *Ngambika*[199] as used by Davies and Graves (1986). According to Davies and Graves, the African woman often balances her load without assistance, and when she cannot, she says Ngambika which means Nditsige in the Shona language. Through uttering these words, the woman asks someone to help her lift the load from the ground while she finds the correct posture and balance to carry the weight herself. In this case, the inability of the woman to always balance the load on her own signifies a female vulnerability which is often understood. Antithetical to female vulnerability is male vulnerability which is often not understood. From my own observation of the traditional set-up, the man often balances his load totally without assistance. Nonetheless, his inclination to not frequently say *Ngambika* or *Nditsige* does not make him out to be less vulnerable. This analogy I have used points simply to the fact that men and women project their vulnerabilities differently. In the very final analysis, I recall White who claims, that development deals in pathologies, where those with no need do not deserve assistance (see White, 2000). This becomes as problematic as when development practitioners and State response agencies to choose to treat for example one partner of a 'sexually transmitted disease 'in the absence of the other, as oppose to treating both[200].

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[199] Ngambika is a Tshiluba (Central Africa) phrase for 'help me carry the load'. In the Shona language spoken in Zimbabwe, Ngambika would be translated to mean Nditsige.
[200] The concept of treating one partner of a sexually disease in the absence of the other is taken from Chant and Gutmann (2002) in Chapter 4.

Chapter 10: Who is affected by what changes, who gains, who loses?

Introduction

In Chapter 2 I argued that environmental changes first become evident to the people experiencing them, and that it is through their collective experiences that environmental changes of communal concern become known to observers. Equally, the people experiencing environmental change hold a set of beliefs about causality and their capacity to respond and cope, which are not immediately evident to the observer. However, through drawing on participant voices, I was able to access some dispositional information about the beliefs and understandings of Zimbabwean rural men and women relating to environmental change. This was presented in Chapter 8, which spoke to research questions 1 and 2. Respectively, the questions asked what experiences of environmental change have been most critical in the lives of rural men and women and what the perceived causes of the changes are. Chapter 9, my second findings chapter, spoke to research questions 3 and 4. Respectively, the questions asked what coping mechanisms the rural men and women have adopted in responding to environmental change, and who has been most vulnerable to the changes.

In this chapter, I critically discuss these findings which will be presented as four main parts. Part one speaks to research questions 1 and 2. In this first part, I scrutinise the intersection between vulnerable places and vulnerable people showing that both rural men and women have some shared experiences because of a unity of context. That is, they both live in disadvantaged rural areas, and in a country that is undergoing crisis. As part of this scrutiny I pose challenges to three prevailing ideas, of which I have labelled myths, which seem to problematically inform Zimbabwean government policy and practice targeting rural areas.

Part two speaks to research question 4[201]. In part two, I unpack the gender analysis questions posed in Chapters 4 and 9 (i.e. who does what, who has what and decides what) so as to look at the nature of gendered assessments of vulnerability. I then turn to

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[201] Part two leads into the discussion on RQ4 instead of RQ3 to carry over the flow of thoughts carried in Part one.

the conceptual framework of this study to explain differential vulnerabilities that ensue between men and women in spite of the unity of context. I then look at the overriding response by the rural men and women, that *everyone is vulnerable* (see Chapter 9) and try to rationalise this using simulated scenarios (where loyalty is the driving force for the overriding response) and through empirical backing.

Part three speaks to research question 3. In this the chapter I consider critically the notion of a 'coping crisis' among the rural people. Here I place focus on human agency and the structures and processes that facilitate or constrain it. Key areas that will be discussed include poor people's entitlement failure and the outlaw culture, the marginalisation theory of vulnerability, and the omitted beneficiaries of aid. This section ends by exploring in detail the changing role of the family in times of crisis. Part four will conclude the chapter by giving the theoretical significance of the study.

Part One: Vulnerable places produce vulnerable people

In his reminiscence on Zimbabwe, Moore (2005) pointed out that a spectre haunts Zimbabwe – a spectre of its brutal colonial past. Chapter 6 described in detail Zimbabwe's colonial past, relaying how the rural disadvantage seen today first emerged as a result of the colonial experiment of relegating native people onto marginalised native reserves. Conceptualising the effects of colonialism on the formerly colonised, Boblin (2009) explains that in many instances it is not bad judgement or bounded rationality that drives people to inhabit fragile regions and pursue marginal livelihoods, but that these circumstances can more often than not be explained by historical events such as colonialism (p. 124). In the case of rural Zimbabwe, Chapter 6 showed however that the post-colonial State, through the Welfare Policies of the 1980s, the Structural Adjustment Program of the 1990s and then the Land Reform Program of the 2000s had not been able to rectify the rural disadvantage. Hence development has remained static in the rural areas amid dynamic infrastructural and technological transformations that have taken place in distant urban spaces, and have only now slowed down due to the economic crisis. The rural disadvantage of Zimbabwean rural men and women is thus also related to the concept of 'distantness'.

In development thinking, 'distantness', or spatial isolation as it is called in many readings (see Bird et al., 2010; Chambers, 2006b; Kasperson & Kasperson, 2005) is a measure of poverty and vulnerability. In his seminal work on rural development, Chambers (1981, 1983) spoke of several dimensions of rural poverty (see Chapter 1), and among these was a 'distantness' that is related to knowledge and access. Chambers called this a spatial isolation and argued that the rural were often poor as a result of being detached from the centre of things. That is, they are found in areas remote from the urban centres, or live far from the main roads (the tarmac). In Chapter 3, a similar notion was tendered by Wisner et al. (2004) who argued that a society could be vulnerable if 'distant' spatially (distant to centre of economic or political power). To further their concept of distantness, Wisner and others note that society can be vulnerable if also distant in the following sense,

> temporally distant (distant in past history), and distant in the sense of being so profoundly bound up with cultural assumptions, ideology, beliefs and social relations in the actual lived existence of the people that they are 'invisible' and 'taken for granted' (p. 52)

Bernstein (2013) acquiesces to the arguments put forward by the foregoing scholars, but nonetheless calls the gaps in the knowledge of the 'distant' rural people an ideological oppression (p. 69). In total, the Zimbabwean rural realities reflect the bottom of the pyramid (BOP) concept submitted by Prahalad (2006). In this concept, the majority of the poor are found at the base of the economic pyramid, where they subsist on less than $2 a day due to a poverty of opportunities. It so happens that, Chapter 9 showed some participants in this study recounting tales of how they were remunerated in kind, which in cash equivalent was less than $2 a day. To put Zimbabwean rural areas more into perspective in terms of their contextual vulnerability, I will explain context in brief under locational and situational subtexts. The two notions were introduced in Chapter 1, and explained in Chapter 4.

Locational context

Firstly, I call to mind the locational context of the Zimbabwean rural men and women that, as portrayed above, is characterised by marginality of space, and a distantness

which is not only physical but economic, political, temporal and ideological. In light of these disadvantages that are tied to space, I argue that locational context informs the rural experience for both Zimbabwean rural men and women[202]. As a result, due to rural disadvantage, the poor in the rural areas are a mass phenomenon, not a minority. It is mostly on the basis of their disproportionate numbers in the rural areas that rural women are generally argued as being the shock absorbers of crises more so than men who often migrate in the face of crisis (see Kanyenze et al., 2011). Rural disadvantage thus presents a classic case of vulnerable places producing vulnerable people.

However, in spite of the contextual vulnerability that is arrived at solely from looking at the aggregate total of rural people or the disaggregated totals of rural people by gender, men and women present in the rural areas are affected differently by environmental changes. In other words, yes vulnerable places produce vulnerable people, but how people are thus vulnerable may be different. A more in depth analysis of men and women's differential vulnerabilities will be carried out in part two of this chapter, but at this point, I call attention to a few examples of this. In Chapter 8, men's vulnerability was described primarily through their growing invisibility in economic roles and from authority as a result of environmental changes including job losses and the unviability of farming[203]. In the discussion in Chapter 9 it became clear that men were going to greater lengths than women to engage in even risky coping strategies to reclaim their economic visibility and authority in society and in the home. Correspondingly, examples given of vulnerable women in Chapter 8 include those of women struggling to feed their children in the midst of drought situations. In Chapter 9, I presented the case of a female participant who had justified women's urge to provide food for their families through saying that the children looked to the mother when hungry. Chapter 9 also explored women's roles, showing that women struggle the most with the scarcity of resources such as water and firewood.

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[202] The notion of rural experience does not mean that all rural people have exactly the same experience of being rural. The issues of the day in the rural areas will affect some rural people directly, and others indirectly. The fact that they are all affected in one way of the other is because of the unity of context.
[203] The assumption arrived at from analysing the findings is that men's loss of their breadwinner function led to their loss of authority over their children, which they then believed contributed to unruliness in children. The other reasons given for children's unruliness were the underlined sense of hopelessness and incidents of idleness which came about due to the dire state of living in Zimbabwe.

Situational context

In this section I discuss the situational context of Zimbabwean rural men and women, one that is in part characterised by a convoluted crisis which is economic, political and social in nature, and is best described as a humanitarian crisis. The crisis emanates from the macrocosm of Zimbabwe, but rural men and women are not immune to its effects. Accordingly, the situation of crisis is a unifier that brings rural men and women's experiences into alliance based on being Zimbabwean. While the causes of the Zimbabwean crisis remain a topic of debate, the crisis has presented economic headwinds[204] and, as this research makes clear, its effects on social organisation and the general social fabric cannot be underestimated (Murisa & Chikweche, 2015). In light of its effects on society, a context of crisis also gives rise to vulnerable people, but the problem with such environments is that they can blur out well-defined ideas or normative assumptions of vulnerability.

For example, primary usufruct rights to land are unable to shield men from being vulnerable to the vicissitudes of the weather or from having no money (see Chapter 8). Indeed, Chapter 8 specifically presented incidents of men losing their breadwinner functions due to environmental changes which have led to job losses and the unviability of farming. In a patriarchal society where child rearing is considered a woman's job, Chapter 9 showcased an unusual case of a man who had to stay home looking after the children while his wife assumed the breadwinner role. In crisis environments therefore, whether one has a social advantage or not, and whether one is male or female, a state of interlocking crises could mean that at each new level of crisis anyone may be exposed to challenges that exceed their ability to cope. In a way, old vulnerabilities may be worsened, and new vulnerabilities created.

To support my argument that rural men and women lives and trajectories are unified by context, I will need also to demystify three myths which as argued in Chapter 6, are politicised falsifications which problematically inform policy and practice targeting rural areas. In spite of marginality of space, myth 1 suggests that all rural areas are major food producers.

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[204] Headwinds are a nautical term which when used to describe economic situations represents events or conditions that slow down the growth of an economy.

Myth # 1: All rural areas are major food producers

 While farming is the main livelihood for the rural people in Zimbabwe, nearly three quarters of the rural areas are marginal and subject to frequent mid-season dry spells. This was noted in Chapters 1, 6 and 7. Even so, officially from the 1980s, smallholder farmers had become the primary food crop producers, and commercial farmers, cash crop producers[205] (see Table 24). According to Clay (1998) the transferral of this function primarily to the marginal communal areas has made agriculture more sensitive to rainfall variability, yet as it also happens, for over 20 years, smallholder farmers produced 80% of Zimbabwe's annual maize requirement of 1.8 million MT (MacNairn, 2014). In view of this history, rural areas have generally been argued to be the major food producers.

Table 24: Maize Production Trends between Communal and Commercial Farms 1969-2001[206]

	National		Communal		Commercial	
Years	Metric ton	Hectare	Metric ton	Hectare	Metric ton	Hectare
1969 to 1970	1,085,300	902,800	245,700	610,800	839,600	292,000
1975 to 1976	1,837,800	1,017,300	550,000	760,000	1,287,800	257,300
1980 to 1981	2,833,400	1,363,400	1,000,000	1,000,000	1,833,400	363,400
1985 to 1986	2,412,000	1,314,000	1,348,000	1,074,000	1,064,000	240,000
1990 to 1991	1,585,800	1,101,200	1,019,300	971,000	731,500	178,800
1995 to 1996	2,609,000	1,535,000	1,687,000	1,330,000	922,000	205,000
2000 to 2001	2,148,110	1,416,700	1,240,000	1,210,000	908,110	206,700

Source: Maiyaki (2010)

What is frequently ignored is that, although smallholder farmers produced 80% of Zimbabwe's annual maize, a percentage (1%), located mainly in the Mashonaland maize belt (East, West, Central) (Jayne & Rukuni, 1993), accounted for much of that production (MacNairn, 2014). This detail is corroborated by Michael Jenrich of FAO who said that, while two thirds of the communal areas are dry; a third is very capable of producing up

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[205] The move for commercial farmers was inspired by the liberalisation of Third World markets, where agriculture was seen moving further away from price controlled food crops produced for the local market, and more towards free-market cash crops produced for export.

[206] The irony between crop production in the two farming systems is that, commercial farmers utilised lesser hectarage of land to produce more tonnes/ha, whereas communal farmers utilised more hectarage of land to produce less tonnes/ha.

to 2 million MT of maize (see IRIN, 2008). This is a reality which as Power (2003) highlights, suggests that the more agro-viable areas were the true breadbasket of the breadbasket. The fact that remains is that in the more marginal areas like Buhera and the drier regions of Nyanga, net buyers of grain could amount to 70% or more even following a normal rainfall year (Jayne & Rukuni, 1993). A significant proportion of the households in the drier regions therefore bought grain in any given year (Rohrbach, 1989). In light of this, that rural Zimbabweans now purchase 65% of their maize (see MacNairn, 2014), is nothing out of the ordinary (see Chapter 9). Neither is the indication that rural areas now receive food aid every other year, anything new (see fig. 24) (also see Chapter 9). The latter is partly why in the booming years of maize production in the 1980s, Rohrbach (1989) had suggested that, "*even with continuing growth in maize output, it appears that domestic drought relief programmes will remain an important aspect of national food security strategies in the foreseeable future*" (p. 17).

Figure 24: Zimbabwe Cereal Food Aid Equivalent per 1000 MT 1990-2012
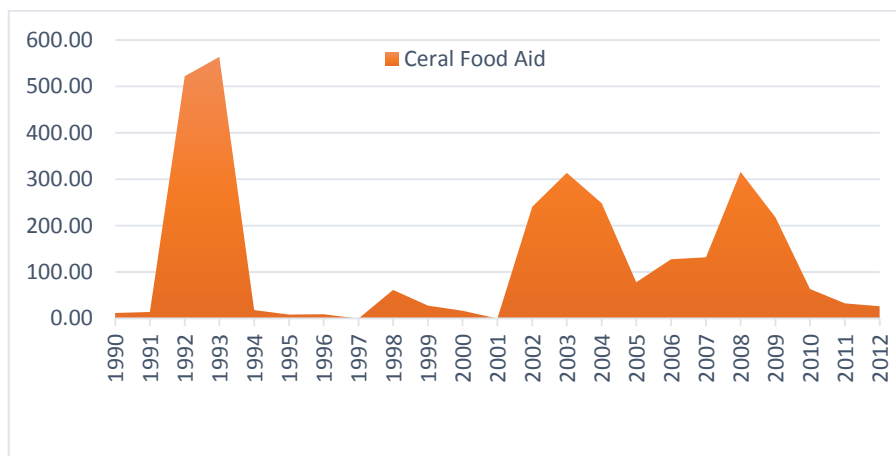
Source: Compiled from USDA

The first noted difference between the 1990s and the 2000s is that, currently each harvest season is being characterised by extreme yield deficits (see fig. 25), whereas in the 1990s there had been fewer cases of this[207] .

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[207] A notable case of extreme yield deficit in the 1990s is that experienced during the 1991/1992 drought. The extremity had been to the point where the national GMB only had 13 000 MT out of a required 1.8 million MT of maize. The 13 000 MT was enough only to feed the nation for 2 days (see Nangombe, 2014) .

Figure 25: Zimbabwe Maize Yield (MT) 1990- 2013
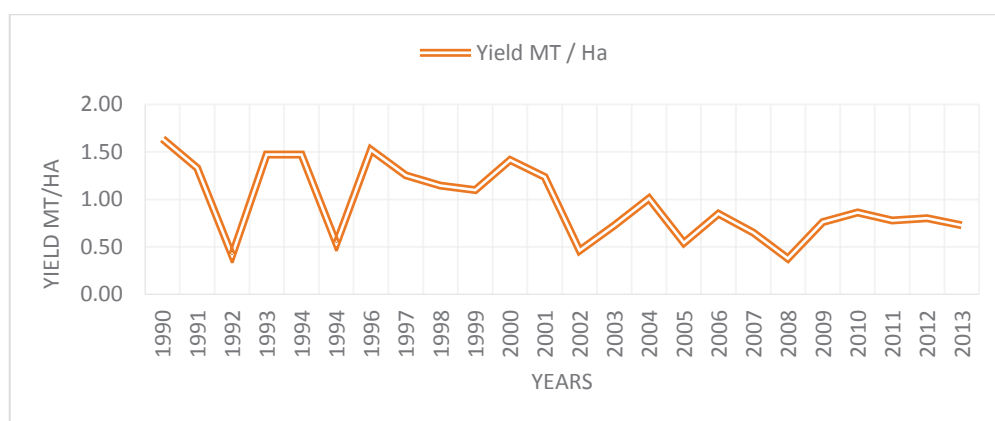
Source: Compiled from USDA

The second noted difference between the 1990s and the 2000s is that where the government was once the major supplier of food aid to the rural areas; NGOs have now taken centre stage. At first, the government was cynical about its incapacity to provide aid and had clung on to its benefactor role in the process, downplaying food shortages and demonising NGOs. At one point Mugabe had gone as far as to reject humanitarian aid, stating that Zimbabweans did not want to choke on international food aid which they did not need (Coltart, 2008, p. 9).

The third noted difference is that the countrywide numbers of food insecure people has risen since the 1990s. In 2002 alone, the WFP claimed it needed $300 million to feed up to 5.5 million Zimbabweans, a huge proportion of the population considering that Zimbabwe had a population of 11.6 million people at that time. Power (2003) demonstrates the gravity of food insecurity through comparing Zimbabwe's near 50% food deficit people, at the time, to Ethiopia's 20% at the height of the famous Ethiopian famine under Mengistu Haile Mariam between 1983-85.

Also underlined by paradoxical logic, myth 2 suggests that on the basis of rural distantness, rural areas are immune to the negative effects of the main stream economy.

Myth #2: Rural areas are immune to the negative effects of the mainstream economy

The concept of the dual enclave is used often to describe Zimbabwe's economy (see Chapter 6) suggesting that because of the colonial exclusionist strategy, the 'rustic' rural

economy is isolated entirely from the 'sophisticated' urban economy (see Lopes, 1996). This is because as simple commodity producers functioning reasonably well with traditional exchange systems of goods and services rather than cash, the rural people are often thought to be unaffected by the negative effects of the mainstream economy (see Kanyenze et al., 2011). In addition, due to the close-knit social networks in the traditional setup, the State wrongly assumes that crisis is felt less in the rural areas (see Rwezaura et al., 1995). In light of these two arguments, rural areas represent contingency for those in urban areas (Paradza, 2010) The discussion of the *Murambatsvina* program in Chapter 6 is a good example of the way in which this has been relied on in times of crisis. But in fact , rural people are generally not immune to the negative effects of the mainstream economy (Ames et al., 2001). Chapter 6 gave an insightful account of Zimbabwe's interlocked crisis that affects even rural people. As for the forces behind the propulsion of crises, Kaminski and Ng (2013) directed attention to recurrences of unresponsive policies. To rationalise the unresponsive policies, Munemo (2012), explained that in contexts where policy making is personalised rather than institutionalised, people perish at the whim of the personal ruler. To spell out some of the negative effects of the mainstream economy for rural people, I draw on the crisis model that deWaal (2004) propounded from his study of the 1985/86 Darfur drought.

Figure 26: de Waal's Crisis Model

Adapted from deWaal (2004)
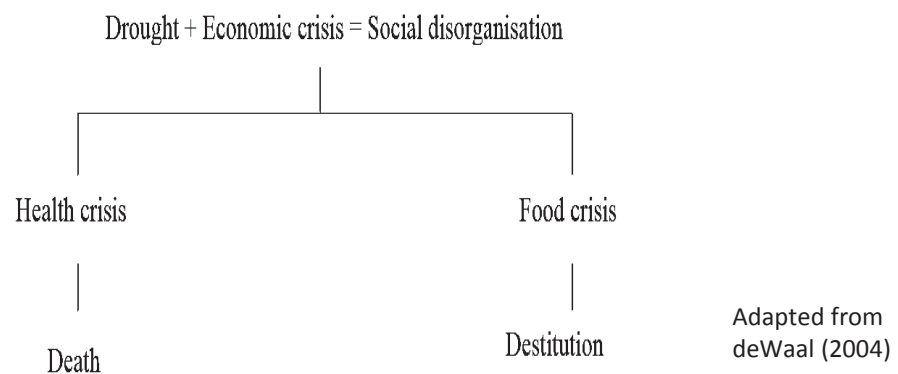
Synthesising the various tiers in the model, to start with, the intersection between a drought and an economic crisis can lead to social disorganisation. Social disorganisation manifests through the disintegration of (1) sustaining systems (goods and services), (2) regulative systems (law and order) and (3) the reproductive system of society (home and family) as seen in Chapter 8. As upshots of the first tier of crisis, food and health crises

start to surface. For those whose livelihoods are agro based, a food crisis can lead directly into destitution or absolute poverty. It is generally argued that there is essentially no direct link between destitution and death, but when nutritional status declines to the point of severe deficiency, the risk of mortality increases (deWaal, 2004). On the other hand, there is a clear correlation between a health crisis and death, particularly in the context of famine.

Famine is a contested term, but de Waal's views on famine in Africa resonate with the findings of this study as they seem to be more reflective of the lived experiences of food crisis. de Waal defines famine from the point of view of the Sudanese people in Darfur, who have in their local languages the word famine which means simply hunger. However, as de Waal comments further on African famines, when a famine does kill, it does not follow that this killing is the central experience of that famine. There are several factors that can also lead to the killing. Using the example of HIV/AIDS, livelihood loss due to drought and the economic crisis are argued to have increased the rate of promiscuity and risky behaviour resulting in more cases of HIV/AIDS in Zimbabwe (Gandure et al., 2010). The example of promiscuity, mainly among youths, was noted in Chapter 8.

In the desperate case of Zimbabwe, vulnerability to concurrent shocks has translated directly into sickness and death, or rather, as Coltart (2008) euphemistically puts it, people are literally fading away. As Power (2003) and deWaal and Whiteside (2003) explain, food insecurity generates a new variant of famine, where hunger weakens the immune system, accelerating the progression of HIV into full blown AIDS. Here mortality is more attributable to hunger than it is to the epidemic. Subsequently, HIV/AIDS is said to have greatly diminished the manpower (from the infected and affected) in Zimbabwe (Jayne et al., 2006). The consequences are increasingly devastating in rural households (Matondi & Munyukwi-Hungwe, 2006). At the time that Dorman (2001) did her study, AIDS deaths had been causing a 61% decrease in maize production, and a 49% reduction in vegetable production. Drawing on the crisis model, where 2 or more crises meet, the secondary effects are greater than the primary effects. In Zimbabwe this can be seen through deaths by the thousands from AIDS each week According to Nkatazo (2011), in 2011 approximately 2 300 Zimbabweans were dying from AIDS each week.

Lastly, myth 3 puts forward that environmental changes are scientific, and require technocratic solutions, implying that the rural people are too incompetent to take responsibility for their own survival.

Myth #3: Environmental changes are scientific, and require technocratic solutions

As suggested in Chapter 7, the commonly known local environmental changes in the Zimbabwean rural areas (e.g. soil erosion, deforestation and land degradation) are framed as scientific issues which require technocratic solutions, and ameliorative strategies often proposed are merely legislative, having very little to do with the underlying conditions of society. As a result, policy regarding environmental issues has largely been a result of science and bureaucracy mutually reinforcing one another, and in the end, the worldview of the rural poor has remained missing or partially understood (see Keeley & Scoones, 2003). In Chapter 2 however, I argued that it is through lived experiences that environmental changes of communal concern become known to observers. This means that, through understanding lived experiences, a more nuanced understanding of what environmental change might mean for people can become clearer. In light of this understanding, environmental changes are demystified from scientific events to social problems that affect people who through their cognitive abilities can estimate the magnitude of change, perceive the causality for the changes and try to cope with the changes.

When asked about the causes of environmental change, rural men and women in my study had given a myriad of responses, some which appeared to be less sanitised than others[208]. Sanitised or non-sanitised, the perceptions epitomise the worldview of the participants through defining the way the world would have to be for these experiences to be accurate Speaks (2009). The perceptions of the participants also aid the understanding of how cultural beliefs can create a social order, infuse social stability and effect social cohesion. When cultural beliefs are tempered with through external influences such as colonialism, for example, a state of confusion can arise, resulting in social disorganisation. Where previously, rural people in Zimbabwe believed in conserving nature as propitiation to spectral spirits, Chapter 7 showed that colonialism

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[208] Sanitised perceptions of risk are explained under risk and vulnerability in Chapter 3.

had corroded traditional management systems of NRs. The corrosion of the ancient code of conduct used formerly to conserve nature plays a contributory role in the alarming rates of land degradation and resource scarcity cum biophysical changes seen today in rural areas. When considered in this light, rationales such as 'not following tradition' transform from being non-sanitised to being logically sound reason for causality.

Part Two: Examining who is affected by what changes, who gains who loses?

Following the argument submitted by Chambers (2004), "*listing and disaggregating are a means of qualifying the reductionism of much development thought*" (p. 5). As Chambers points out, listing adds diversity and complexity, while disaggregating unpacks concepts. In this study, I use this form of reductionism to analyse men and women's differential vulnerabilities. Hence Chapters 4 and 9 carried the questions *who has what*, *who does what*, and *who decides what* for the purposes of extracting literature and eliciting findings that show rural men and women's gender relations. In this chapter, the questions *who has what*, *who does what*, and *who decides what* are used to marry the literature and fieldwork findings, and to answer the questions, *who is affected by what changes*, *who gains who loses*? Through asking these questions, what will be seen is that while context can unify experience, differential impacts of environmental change will remain certain.

Who has what?

Through the gender analysis exercises carried out in the field, Chapter 9 showed that the question *who has what*, pointed to rural women mostly owning kitchen utensils and household furniture as opposed to productive resources like the men. The animals that women possessed were also shown to be of lesser value to the ones possessed by the men. This is notwithstanding that in the semi structured interviews, some women had claimed owning land, while a woman as noted in Chapter 9 had claimed owning cattle even though in the community's eyes, the cattle were seen to be her husband's. As argued in Chapter 4, assets act as buffers against vulnerability. That is, they help people to anticipate better, cope with and recover from external shocks. So the idea that men

may control all the productive resources is problematic more so when considered in terms of vulnerability[209].

In Zimbabwe issues of access and control over assets affect both rural and urban women. Out of the many differences that can be seen between women in the two geographic spheres, is that rural women have more limited resources than urban women. Thoko Ruzvidzo, a Zimbabwean woman activist argues however that there is virtually no difference between a woman who has limited resources and cannot get collateral based on these grounds (rural woman) and a woman who has unlimited resources but cannot use them at freewill because they are controlled by her husband (urban woman) (cited in Getecha & Chipika, 1995). In total, there have been ongoing debates among scholars and women's action groups in Zimbabwe concerning how to solve the deeply entrenched patriarchal problem of the access and control of resources between men and women especially if this impacts vulnerability (see Made, 2015).

Who does what, who decides what?

On the question who does what, the gender analysis in Chapter 9 showed that women did the majority of the household chores. On top of their household chores, women were said to work in the fields. Where it was not productive to farm, the women joined the informal labour force.

Linking this question to the next which *considers who decides what*, it was generally shown that women do not have the bona fide right to make the ultimate decisions in the home. The image that was visible of women from the gender analysis mirrors statistics that have been published in the literature. As an example, the ZWRCN (2005) stated that, Zimbabwean rural women do 70% of the food production, spending about 49% of their time on agricultural activities for their families' subsistence and 25% of their time on domestic chores, and yet own none of the productive resources, or traction animals.

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[209] Female heads may have more leverage over the use and control over assets in their homes. While some married women in my study had implied that a woman with a husband is better than one without, it was observed in other studies that not all female headed households are the poorest of the poor (Stewart-Withers, 2007) and that some female headed households cope better than male headed households in famine situations (deWaal, 2004, pp. 169-171).

Hence from both the gender analysis findings and the literature we see women with no voice juggling many roles, yet owning less.

To the contrary, when men's roles in the gender analysis findings are reviewed, a sense of absenteeism from the daily running of the rural household appears evident. But this could be explained by the fact that a substantial number of the rural men are migrant workers in the city (see Chapter 5) from where some, not all, pay remittances. This is why one female participant had said that women did all the work, and were the de facto heads when the men were away (see Chapter 9), while another woman had also said that some men went searching for jobs outside the village and did not come back home, let alone send money (see Chapter 8). In the homes that the male de jure heads were present, Chapter 9 still portrayed them as being less involved in the household chores and more involved in the decision making regarding how the household is to be run. Even so, the men were shown to have their own domestic roles some of which involved the maintenance of the homestead through thatching, building and maintaining kraals. Moreover men were also shown to work in their family fields or in other people's fields when faced with extreme hardship just as women traditionally do[210].

Having carried out his fieldwork also in Nyanga, Moore (2005) gave an additional perspective of gender relations from his study,

> *While women rarely ploughed, wives married to migrant labourers had little choice if relatives or friends did not lend a hand…Young men frequently ploughed neighbours' and relatives' fields helping (kubatsira) rather than charging – especially widows and the wives of migrant labourers* (p. 109)

Moore's account ascertains that on a comparative scale, women are more hoe wielding than plough wielding, meaning that, men when present do much of the ploughing. This is an observation that is consistent with the seminal work on the sexual division of

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[210] Other studies suggest that rural men are more involved in cash crop production than the women, hence while women do all the food crop production which is mainly for subsistence, men profit from cash crops on their own. This had not been evident in my study for obvious reasons that both case study areas where located in the most marginal agro ecological zones that are nearly not suitable for habitation, as was suggested by Moyo et al. (1993).

labour (SDL) that was submitted by Boserup (1970)[211]. Moore also emphasised that the women in his study conveyed a message of *kurima madiro* which means to farm freely (p. 116). This is the same impression that I got from my study, in spite of the lopsided gender relations shown by the gender analysis. Nonetheless, having carried out his fieldwork in my second case study area, Buhera, Vijfhuizen (1998) additionally gave his own perspective of gender relations from his study. In response to the claims made on the Zimbabwe Broadcasting Television evening news on October 15, 1997, that women do all the work in the fields, but do not control the land or the benefits from the land, Vijfhuizen had commented that,

> *In relation to my own research I was surprised. My first reaction to the statement that women do all the work and receive only one percent of the benefits was that women are not that silly… in my study women not only use the land but have a certain measure of control over it* (p. 1)

Claims that rural women in Zimbabwe do all the work but do not control the land or the benefits from the land are not to be taken lightly, for there are still areas where these statistics are reflective (see Lowe-Morna et al., 2014). Even supposing this, the same claims must not be generalised to all Zimbabwean rural areas, as there are rural women with latitude in land-related decisions (Gaidzanwa, 1995).

Critiquing the gender analysis

It is too simplistic to carry out a gender analysis without evaluating whether the gender construct is being used appropriately to attain results. Hence in this section, I critique the gender analysis to the extent that it was used in my study (see Chapter 5). I do this to show that, as a standalone research technique, it will not give a balanced view of the gendered dimensions of environmental change.

Using the characterisation submitted by Müller (2004) small holder farming is characterised by a close relationship between the household, food production and domestic activities (childcare, food processing and home maintenance). As Müller points out, women are at the centre of this interface as household managers, food producers

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[211] Boserup's seminal work on the sexual division of labour in the African traditional set up has since been criticised for being incoherent with the African reality (see Ekejiuba, 1995).

and caregivers. Looking at things from this view shows that there is no space for an equal analysis of men's roles in this interface. This reflects the observation by Jackson (1999), that whilst a gender analysis addresses gendered patterns of labour, it has tended to focus mainly on women. I flesh out this argument with two main points.

First, a gender analysis that is drawn to elicit the gendered division of labour in the rural home will return results of work burdens that are mostly biased towards women, because their work is mostly centred around the home. The gender analysis will not usually account for the work that is done beyond the borders of the community. Hence the work of the often migratory men, working beyond the borders of the community is omitted from the analysis. Whitehead (1999) cautions this method of analysis saying, a concentration on men and women's time inputs to work activities on the farm leads to there being less attention paid to off farm activities, yet more men than women engage in off farm activities. The reason for this is a continuity bias which is grounded on a farm model where rural men and women's livelihoods revolve around on farm activity. Based on the model, women's additional roles which include searching for firewood, collecting water, cooking, cleaning and caregiving are weighed in to come up with the sum total of triple roles. It is often assumed that when the women are doing all these roles the men will be seated[212]. A crucial argument in the gender vulnerability literature has therefore been that, with the intensifying resource scarcities, and the growing erraticism of rain, women will face the greater brunt of these environmental changes.

However, as Jackson (1999) also rationalises, the overemphasis on time as the only indicator of equality of work effort focused on by outsiders can be misleading. For the equity or otherwise of gender divisions of labour is then evaluated in terms of how many hours are worked each day by men and women in the same household. According to Jackson, time used as a metric of effort, may feminise work concepts to the extent of

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[212] A gender analysis does not make allowances for the migrant men working outside the village from where some, not all, send remittances. Silence on these crucial male roles would then make it appear as if women shoulder all the responsibility of taking care of the family on their own. Yet given that the rural areas operate within imperfect markets and that farming income is based on seasonality, a large fraction of the perennial cash that circulates in the rural economy is from remittances. It needs to be acknowledged that the remittances are sent by children, relatives including husbands working in the cities. Hence as Connell (2005) states, men's sweat cannot be excluded.

overlooking the work effort intensity of men's roles. Reconciling gender roles and their interdependence, the ILO (1998) demonstrates that both men and women have multiple roles, but suggests that the difference between their gender roles lies in execution. Where men typically execute their roles sequentially, focusing on a single job, women execute their roles simultaneously, balancing the demands of each job within limited time constraints. The assumption therefore is that, women's working within limited time constraints causes them to appear as having more roles than men.

Above and beyond, as the landscape of farming is changing, Chapters 8 and 9 showed that women are gradually being forced to venture outside of the domestic sphere to look for work. The people who remain at home doing the household work are the children. But because of the common-sense typologies of gender, gendered work will always be attributed to adult women or men. Yet as Whitehead (1999) reasons, averaging women's and men's work conceals the different workload between the adult family members and younger family members such as the girls and boys. Children in rural homes shoulder a fair amount of the work burdens in the home, and therefore should also be acknowledged in terms of how they are impacted on by environmental changes such as resource scarcity and erratic rainfall.

My second point derives from another statement made by Jackson (1999), that one way to approach a gender analysis of men's work might be to ask the kinds of questions which are often asked of women's work. Such questions include, "*are there areas of men's work which have been underestimated or are invisible, and do men experience work-related vulnerability as a consequence of their gender identities*"[213] (p. 95). As I observed in the field, the growing unviability of farming and the worsening economic challenges have resulted in several shifts in relation to men's work and their vulnerability. Mostly, as I have continually argued, in this environment, man's primary usufruct rights have not been able to yield any positive returns. Hence while the gender analysis will blanket men as having the primary rights to land, it fails to show for instance, that the land may have been lying fallow for over two years, due to a shortage

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[213] Stewart-Withers (2007) argues a similar point saying, in spite of having moved away from WID, GAD sometimes neglects the experience of men in terms of their own powerless positions, inequalities, dependencies and blocked opportunities (p. 42).

of money to buy input, or a successive series of unfavourable climatic patterns which act as a disincentive to plant crops.

Additionally, the gender analysis may also blanket men as having ownership of cows for instance, but fail to account for the fact that it is these cows that are used through divestiture, to shield the family from hard times. This way the gender analysis overlooks how men can be impacted on by the economic crisis or by weather changes. The same applies to when men lose their jobs due to various social dynamics. In this case, some rural men have lost their jobs as a result of the annexation of farming estates and the closure of manufacturing industries. Since the gender analysis does not account for off farming activities, it fails to capture how the rural men are affected by environmental changes in the spheres where their work is mostly concentrated. The impact of men losing their jobs impinges on their vulnerability in relation to their gender more so because they lose their provider roles, and they retreat from visibility economically and from authority. The job losses of rural men also affect women who would have previously relied on their husbands' remittances for capital to buy seed and input.

As Connell (2005) argues, to list what men and women do requires gender be recognised beyond categorical sex difference, to the ways that men differ among themselves, and women differ among themselves. This means that it is not enough to blanket results, through presupposing that all women are landless, or voiceless, or that all men have land, and have voice. The danger of having a gender analysis drafted collectively by the community is therefore that it averages the gendered experiences, thus concealing exceptions. Jackson (1999) asked, who will account for those rural poor men who are functionally landless and whose most important asset is their own body – for labour and reproductive means.

Jackson (1999) has argued further saying, masculinity has become the conceptual scape goat for power wielded by hegemonic masculinities. As she carefully admits, indeed, within hegemonic masculinity is the masculinity that occupies the hegemonic position in a given set of gender relations, but this is always contestable. For, as she says, subaltern men have complex and contradicting relations with hegemonic masculinity that offer

discursive advantages as well as traps. However, Jackson poses a second question that says, does the hegemonic masculinity offer a discursive resource to men in general?

In answering this, in Chapter 4 I cited numerous examples from Africa where many men exemplified a watered down version of masculinity. In the same chapter, Morrell (2007) was seen championing the cause of poor South African black men who are omitted from the patriarchal budget because they are poor, and omitted from the development budget because they are men. Even though development agencies have often omitted men from the development budget on the grounds that men in general benefit from the patriarchal budget, Muchemwa and Muponde (2007) suggest that we should also inspect the ways in which the embedded feminism might also share the same nest(s) and reaps the same benefits of hegemonic masculinity. This implies that there are women who may benefit more from the patriarchal budget than some men. Nonetheless, while development agencies generally treat masculinities as being monolithic, Connell (2005) also asks if this means that we should then empirically rule out the existence of some women who display masculine traits, and some men who display feminine traits or some actions or attitudes masculine or feminine regardless of who displays them. To reinforce this view, Jackson (1999) asks further, are women only affected by masculinities or do they actively exercise notions of masculinity? [214]

The solution to this and the foregoing questions as I have observed through my study is the use of a gender analysis in conjunction with other gender sensitive research methods for the sake of triangulating results. As will be argued in the section focusing on the overriding response 'we are all vulnerable', through one on one interviews and group interviews, men and women in my study implied that everyone, male or female was vulnerable in some way shape or form to environmental changes.

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[214] I call attention to Lorber's cases of gender modifications. These are modifications that are aligned to cultural, social and aesthetic dissonances (Lorber, 1994, p. 18). Out of the dissonances, I take interest in sociocultural dissonances where in some cases women have instead of being feminine, projected masculine traits. Not as a result of gender dysphoria, but of the masculine roles and responsibilities that they take. An example is given from African and American Indian societies where some women have gained social statuses of 'manly hearted women' or 'female men', not because they behave or dress like men but because of their social responsibilities, and prerogatives of husbands and fathers (p. 17).

Revisiting the conceptual framework

In Chapter 4, my position on biophysical changes being non gendered and social changes gendered was explained. To reinstate this view, I argued that nature does not lend itself to the wars of men. Simply because there are existing gender inequalities in a society, does not mean that nature would take sides through privileging the dominant gender. I used the example of the ecological bottleneck effect to show that there is no natural selection in who receives more intensity of floods, or duration of drought between men and women living in the same geographic space. This said, I am not saying that men and women are affected equally by biophysical changes[215]. What I simply say is that they are exposed equally to say, the duration, frequency and magnitude of changes that are biophysical in nature. In terms of this, the participants had themselves said that, they were all exposed to the same rainfall shortages, for they lived under the same rainless sky, and the absence of water was the absence of life for all living things.

In a Myanmar Delta study that was carried out by South et al. (2012) after a high magnitude cyclone had devastated a vulnerable coastal area, the participants of the study had given somewhat similar responses regarding the casualties of the biophysical occurrence. Asked who had been affected the worst, the participants had stated that in terms of loss of life, the rich and poor had been affected indiscriminately by the cyclone. In terms of loss of property, the rich had been severely affected as they had the most to lose than the poor people who owned fewer resources. This leads me to the point that, while people are exposed to equal duration, frequency and magnitude of biophysical changes, differential impacts are filtered however by gender and other markers of social difference. In Chapter 4, as I also strongly underline, despite living within the same geographic space, men and women are exposed and affected differently by social changes. Hence men may have different experiences of hunger than women because their roles are often not tied to food provision in the way that women's roles are. In my study, this was seen where women were the ones witnessed rummaging for what the

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[215] Through asking questions such as, which men or which women, it becomes evident that men and women are affected differently by biophysical changes, based on gender, yet It should also be kept in mind that gendered vulnerabilities are mediated by other non-gender-identities such as class, race, age and so forth (Pincha et al., 2007), what is termed intersectionality in Chapter 4.

family would eat next, while men on the other hand, were more preoccupied about financial earnings to fulfil their obligations as 'breadwinners'. Figure 27 below demonstrates the gendered impacts of environmental change leading up to differential vulnerabilities.

Figure 27: Congruence model for environmental change (3)
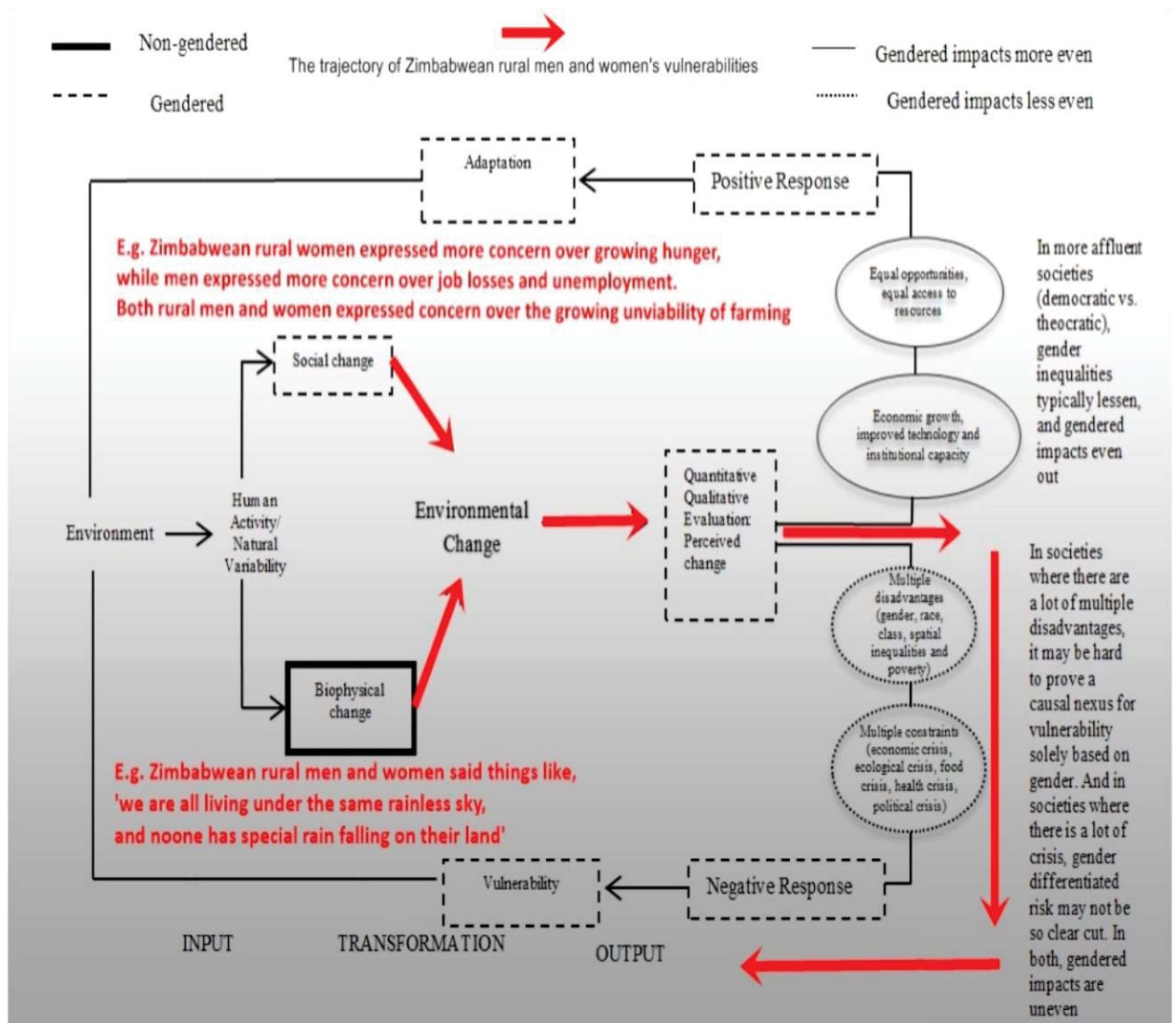
Source: Author, evolved from congruence model in Chapter 4

In addition, Figure 27 shows the trajectory that was observed of Zimbabwean rural men and women's vulnerabilities. To explain Figure 27 on a more technical level, the differences between the effects of biophysical and social changes to people lie in how physical and social systems work. For instance, on top of being system oriented, physical systems are more perfunctory, following a typical cause and effect pattern (Oldfield,

2005). Social systems are on the contrary quite different to physical systems. They are not autogenetic, but are rather conspiratorial where certain rules of the game apply (see Bourdieu, 2005), and where winners and losers emerge (see Leichenko & O'Brien, 2006). Also unlike physical systems, social systems are not conditioned to react as a whole system, but rather as singular components of the whole. In other words, human systems are actor-oriented (Cutter et al., 2000) where system feedback can be traced to the pattern and characteristics of relationships occurring within a social structure - that give rise to differential vulnerabilities between individuals.

Even so, it is important to realise that, context can have a bearing on the outcome of gender based vulnerabilities. A nuanced approach is taken by Skutsch (2002) who shows how the gender specific characteristics that make people vulnerable to climate change[216] are characteristics of women in societies of extreme poverty (locational context). In better off societies, she says, the effects of climate change will have less gender differentiation. On this subject, Bradshaw and Linneker (2014) suggest that not all scholars from rich countries are favourable to this view, yet still, a World Bank study of 141 countries submits data which supports the view,

> *Women appear more vulnerable in the face of natural disasters, with the impacts strongly linked to poverty. A recent study of 141 countries found that more women than men die from natural hazards. [But] where the socioeconomic status of women is high, men and women roughly die in equal numbers during and after natural hazards* (WorldBank, 2012a, p. 86)

Suggesting another dimension of context which is situational, Masika (2002) adds that,

> *There are difficulties in assessing the gender-differentiated risks and outcomes of ecological changes particularly when the debate takes place within a highly-charged political environment where the validity of scientific hypothesis is questioned, and threats are not fully understood* (p. 3)

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[216] That is, heavy dependence on natural resources and limited coping capacity due to weak livelihood bases.

However, since it is argued that gender inequality is the most pervasive of all forms of inequality, and that, women are often the ones on the receiving end of gender based inequalities (see Chapter 4), there remains a prioritisation of women in assessments of gender vulnerability. Yet, to deny persons their humanly right to be vulnerable is a form of dehumanisation, and to deny men their manly right to be vulnerable is a form of dehumanisation by gender (see Chapter 3). In this case, dehumanisation by gender is linked to the ways in which men are denied their gender identity, and the right to be vulnerable on those grounds. In Chapter 3, the unrecognised vulnerabilities are called voices of anonymous suffering.

Seeking to explain the overriding response, 'everyone is vulnerable'

The first and obvious answer to the question why most participants saw everyone as vulnerable (see Chapter 9) is simply that, everyone is genuinely vulnerable. Given the current context of Zimbabwe, it has been seen that at each new level of crisis anyone may be exposed to challenges that exceed their ability to cope. However, to explore alternative answers explaining the overriding response, I found myself looking at Gaventa (1980). In his study on power and powerlessness in an Appalachian Valley, he had tried to reason the quiescence of the non-elite, despite their being dominated by the elite. As a result, he had asked the following questions,

> *What is there in certain situations of social deprivation that prevents issues from arising, grievances from being voiced, or interests from being recognised? Why, in an oppressed community where one might intuitively expect upheaval, does one instead find, or appear to find quiescence? Under what conditions and against what obstacles does rebellion begin to emerge?* (p. 3)

Taking into account that the women who are thought to be vulnerable, often at the hands of the men, were the ones at the forefront in saying that everyone was vulnerable, the questions posed by Gaventa evoke a situation of quiescence by the women. Pondering upon this scenario, I considered also the symbolic significance of the Exit, Voice, and Loyalty premise submitted by Hirschman (1970). Directed mostly at situations in one's firm, organisation or country, Hirschman accentuates two types of responses to unsatisfactory situations. The first is 'exit'; the second is 'voice'. Exiting

entails leaving without attempting to fix things, whereas voicing entails speaking up and trying to remedy things. What makes the difference between the two responses is 'loyalty'. The notion of loyalty was introduced in Chapter 5. All things being equal loyalty can make a person try to reason and stay, rather than to not reason at all and leave[217]. With my study in mind, I thought that an exit situation would have been characterised by voices of discontent from the women, but none were noted. This otherwise meant that a form of loyalty had to be in place. It should be mentioned however that quiescence does not always point to acquiescence.

To further the exploration, I propose 3 possible forms of loyalty that could explain the overriding responses by women. At the same time, I propose 2 possible forms of loyalty that could also explain the responses by the men, many who saw women as being more vulnerable, where women thought that everyone was vulnerable. Using heuristic simulations to back my line of reasoning, I start first with women's forms of loyalty.

Passive loyalty

The first instance of loyalty is passive loyalty. I take this to indicate a scenario where the main response by the women may have been influenced not by real circumstance, but by apathy and an indifference to their situation. Third World rural women are time and again portrayed as the worst casualties of environmental change, yet when asked who was more vulnerable to environmental change, the women in my study had not expressed a semantic of opposition against the men who 'supposedly' leave them to suffer with strenuous work burdens and resource scarcity.

In attempting to explain women's passivity in general, hooks (2004) suggests that, "*women have been socialised to be the keepers of grave and serious secrets – especially those that could reveal the everyday strategies of male domination, and how male power is enacted and maintained in their private lives*" (p. xiii). hooks (1981) calls it a

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[217] I argue this because in some cases, people stay not because they agree with their situations. In other words, quiescence is not always acquiescence. People may stay because they have nowhere to go or because they lack the ability to engage in agency. That is, they lack power which is defined as productive or generative, which raises the possibility of new action. This is what is seen in the case of the Appalachian valley. I term the quiescence that is based on apathy, passive loyalty in this study.

silence engendered by the resignation and acceptance of one's lot. hooks (1989) also suggests that the resignation and acceptance of one's lot is sometimes based on the fear of being alone. To put Zimbabwean rural women's lot further into perspective, it has been said that their harsh patriarchal societies additionally breed forms of subjection where the women find it strategic to circumvent or smooth out potentially provocative situations with men. For the women recognise that the rules of the game are loaded against them and the costs of confrontation are too high to bear (Getecha & Chipika, 1995). hooks (2000) points out that the resultant passivity is exceptionally true for women in lower-class and poor groups. She says that these women,

> …concurrently know that many males in their social groups are exploited and oppressed. Knowing that men in their groups do not have social, political, and economic power, they would not deem it liberatory to share their (men's) social status (p. 19)

The above is to imply that even if all things were made equal, in terms of their gender rights, women in lower-class and poor groups know that they would still suffer from the same struggles as their men, for example, based on race and class. Alternatively, Pearson and Jackson (1998) argue that we seldom encounter narratives of resistance by women in lower-class and poor groups because of moral conformity, while Getecha and Chipika (1995) reason that rural women are severely constrained by poverty and the politics of household economics, that they hardly ever have time to think about their rights. Be that as it may, less narratives of resistance from poor women against their men may be encountered because the women understand their shared struggles with men. This points us towards another form of loyalty, which is premium loyalty.

Premium loyalty

I take premium loyalty to indicate a scenario where the main response by the women may have been influenced by real circumstance, and furthered by the women's understanding of gender unique struggles[218]. Premium loyalty would also realise the

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[218] The struggles addressed here are in relation to the effects of environmental change.

joint struggles shared by women and men[219]. Speaking primarily to women's unique struggles, examples of women's narratives in Chapter 9 show that with intensifying resource scarcity, rural women struggle for example, as they have to walk longer distances just to fetch water. However, in keeping with the notion of the paternalistic dominance which comprises the allocation of duties between men and women, Singh (2000) points out that since it has mutual obligations, it is in the most basic sense not oppressive to women or to men. In their associations with each other, men and women realise their complimentary roles and understand what is expected of each other. This way, paternalistic dominance offers stability and orderliness to society. This complements the Foucauldian view that implores people to cease once and for all to describe power in the negative terms such as it 'excludes', it 'represses', it 'censors', it 'abstracts', it 'masks', it 'conceals', and to see some of the positive aspects of power, such as is the way it is a source of social discipline and conformity (Foucault, 1991). Problematically, when women's unique struggles are considered in isolation of the larger picture that features men's own unique struggles, it is easy to consider only the women's struggles, as they are the ones that are constantly placed in front of us. Fortunately, the larger picture is more salient to the rural women, who when asked who is vulnerable, mostly said everyone.

At variance with the idea of a 'blissful conjugal contract', which as implied possibly warrants premium loyalty, the social stratification standpoint presents the conjugal home as a unit of stratification where the social position of the woman is not only determined by the status of the man (Oakley, 2005), but is characterised by suffering (see Braun, 2003). This viewpoint suggests an inescapably powerless woman. The viewpoint is again less favourable to the Foucauldian view of power, which considers that power is everywhere, comes from everywhere, and is in constant flux and negotiation (Foucault, 1998). However, the fact that women acquiesce to male headship and comply to a different form of power than that which they possess may merely suggest that compliance entails an acceptance of becoming the vehicle of others' agency, thus strengthening the network of power (Villareal, 1994). In other words, the

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[219] It is said that black women see their fellow men as comrades in struggle (hooks, 2000), as over the years, many black women across the world have shared in the unity of struggle in racial and class politics with their men.

yielding of power resides in the social acknowledgement of it, and does not necessarily entail subordination (p. 224). Yielding to power is therefore not always a form of weakness. The sense of partnership exuded through premium loyalty borders with the next type of loyalty, that which is calculative.

Calculative loyalty

I take calculative loyalty to indicate a scenario where the main response by the women may have been influenced either by real circumstance or not at all. This is a strategized loyalty, plotted by women who know that they will get something out of being loyal. Calling to mind what was said by Vijfhuizen (1998) in this chapter, his first reaction to the statement that women do all the work in return for nothing was simply that women are not that silly. For, he had observed that in his study women did not only access land, but had a certain measure of control over it. Vijfhuizen's statement that women do not do all the work for nothing implies that rural women often act with motive. As a matter of fact, rural women have no problem yielding to a harsh patrilineal order in exchange for the incentives offered by the conjugal contract (Muzvidziwa, 2001).

To explain further the women's calculative loyalty, in the Shona culture, women derive power from their position in the family (Vijfhuizen, 1998). Although they have restricted room to negotiate, Shona women manoeuvre through their gendered powers, either as mother, sister, and wife, and they fight with their weapons of the 'weak' [220,221] . The term 'weapons of the weak' was first used by Scott (1985) to refer to everyday forms of peasant resistance. Nonetheless, the very fact that the so called weak are able to fight with weapons within their reach demonstrates an act of assertion. For as Getecha and Chipika (1995) affirm, some rural women see their 'weaker' positions as being divinely appointed, biologically fixed, yet beneficial to some extent. This is why Cohn and Enloe (2003) have stated that some women find patriarchal relationships comfortable, sometimes rewarding. As Jackson (1999) also argues,

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[220] In the Zimbabwean culture, senior female members exercise patriarchically defined powers over junior females. But seniority is not necessarily determined by biological age, as in the instance of a mother-in-law vs. daughter-in-law. In polygyny, senior wives may exercise control over junior wives. In patrilineages, the husband's sisters have indomitable control (Riphenburg, 1997).
[221] Women are called weak because the space they create for themselves is constrained in many ways by their social circumstances, and by gender relations (Villareal, 1994).

if power is conceived of as more contingent, relational and tenuous, than implied in the usage of 'patriarchy', as a generalised and determining male power, then questions arise around how women and men both might make use of elements in hegemonic formulations of masculinity to further their interests (p. 93).

In my view, I consider rural women to be rational agents who with the power to exit or voice (leave or stay), calculate the benefits of staying as opposed to leaving. Calculative loyalty thus confirms that the capacity to comply is not a storage of power, and that women's positions are not static, but rather strategic (Villareal, 1994). As Eunice Njovana explains (cited in Getecha & Chipika, 1995), the main problem arises when, in the scheme of things; a woman is treated as having no value. She gives an example of the Shona tradition, where a woman may kneel before her husband as a sign of respect. In the scheme of things, kneeling is not the problem if the woman is valued, and if she is kneeling voluntarily and from an informed point of view. From my own personal observation, calculatedly, women will kneel and chant totemic praises to their husbands. I consider this to be power in its subtlety. A loyalty underlined by strategy[222].

The next forms of loyalty are the male loyalties. These will be looked at sequentially, albeit under the same heading.

Male loyalties

The responses from the male participants when asked who was more vulnerable (see Chapter 9) confirm the realisation of a shared struggle with the. Even if unique social profiles filter the shared struggle into differential experiences for men and women, several men had empathized with the female experience. In Chapter 9 some men had admitted to helping their wives with their work burdens, as they maintained their male chores. Although my observations were limited to the two areas of my study, the cases of men contradicting patriarchal based sexual division of labour demonstrate a male loyalty towards the female. Given the limitation of my study's scope, the generalizability of these instances may be considered to be impractical. But if we closely inspect other Zimbabwean studies that appear to have been conveniently swept aside for not

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[222] Drawing on case studies from the Solomon Islands Scheyvens (1998) presents a similar argument. She argues that instead of using confrontational strategies of empowerment, women may use subtle strategies in to enhance security and increase opportunities (p. 235).

matching normative assumptions, we also see that it is not all men (or women) that comply with hard and fast traditional gender roles. To emphasise this point, I cite Cleaver (2003) who stated,

> *My research from Zimbabwe, for example, shows that while both men and women are aware of and may publicly assert 'traditional' gender roles, in private, these roles may be negotiated* (p. 4)

However, the case of the empathetic men, this possibly explains the response by the more men than women, who thought that women were more vulnerable. Setting aside the male loyalty towards the female, I move now to the male loyalty towards the male.

Men are traditionally silent creatures of action. In Chapter 4, I noted that, although some men were now speaking up, most were not very vocal about their vulnerabilities. Instead, men's actions when vulnerable, most of which are documented in the literature as aggressive behaviour, are acted out. Aggressiveness and risky behaviour especially during economic hardship are sometimes a result of men defending their egos when their patriarchal roles are threatened. Such behaviours have also been described in Chapter 4 as being trauma based reactions, or else, men expressing their vulnerability. In truth male aggressiveness and risky behaviour is not condoned, however in many cases masculinities have been grossly misunderstood (Gardiner, 2002). In my study, I did not get to see the trauma based reactions of aggressive men first hand, but I still managed to see men acting out their vulnerabilities in other ways. When speaking of vulnerability, men mostly shifted the condition of vulnerability to 'we' meaning everyone, or 'they', meaning women. Most avoided projecting the vulnerability onto 'I' meaning self. In other cases they would start by stroking their own egos before highlighting a misfortune. For example, as presented in Chapter 8, one man started off his account by saying, "*I am the top farmer, I have not been able to farm profitably*" and another, "*I personally bought eight cows, they are dying one after the other*". Together, these two instances point to the anxious men projecting loyalty towards maleness and the ideal of being macho. This also possibly explains the response by the more men than women, who thought that women were more vulnerable.

To explain why men may not always find it liberating to voice their vulnerability, Chapter 3 explored the way in which vulnerability is often associated with women, while Chapter 4 expanded this to explain that men know that they are blamed for women's vulnerability, which is why some men find it pointless to speak out about their own vulnerability. Chapter 3 also notes that vulnerability is associated with weakness, which means that, it may be taken by some men to be a lesser human condition. Bourdieu (2001) confirms that to men not living up to the ideal standard of masculinity, is in itself, an immense source of vulnerability. By virtue of it being a precondition of humanity, vulnerability is inescapable, yet those often associated with power may attempt to escape the designation for fear of being recognised as being weak or less human. In the end, it appears as though, there are those who distance themselves from vulnerability, while there are those who openly embrace it. At the same time, there are those who neither have the power to claim nor reject it. As an example, although vulnerable, some men may lack the power to claim vulnerability, while some women who are not vulnerable may lack the power to reject vulnerability. Hence Butler (2004b) states that the very terms that confer humanness on some individuals are the very same that deprive certain other individuals of the possibility of achieving that status, thus producing a differential between the human and less human (p. 2).

Part Three: Coping Crisis

According to Latham (2005), sometimes there is often no way of anticipating events, yet still, society is compelled to accept and adapt itself to transpiring physical or social changes, or it perishes. This is similar to what was discussed in Chapters 2 and 3, that when faced with environmental changes, people usually choose to mitigate, adapt or suffer. Latham nonetheless also said, "*what sequence or combination of alternatives chosen to adapt is sometimes arbitrarily decided, sometimes coincidentally and sometimes by deliberate strategy*" (p. 180). Following the observation made by Watts (1983b) on famine in Nigeria, it was suggested in Chapter 9 that peasants do not respond to (food) crisis arbitrarily but do so serially based on perceived intensity. As a result, a logical sequence encompassing three levels of coping stages was borrowed from deWaal (1987) and applied to the study. In this section, I look at the coping strategies used by the rural men and women in my study to gauge their efficacy. Before

moving on to doing so however, I will talk briefly on what coping really is and what it ought to look like.

Taylor (2011) suggests that coping entails reactive strategies that are motivated by crisis and oriented towards survival. In addition, Taylor suggests that coping is prompted by lack of alternatives, and usually degrades the resource base. From the perspective of Rugalema (2000), when we say that people are coping it should show that they are dealing successfully with difficult situations. This implying that when the hardship has elapsed, the people ought to be able to 'rebound from the nadir of the disaster' (p. 538), where the assets disposed of during hardship are recovered and food production restored.

Poor people, entitlement failure and an outlaw culture

To revisit Rugalema (2000), the concept of coping strategies in disaster research can be traced to the rise of the neo-liberal free-market ideology of the 1970s. In the neo-liberal worldview, households are considered as rational agents able to cope with adversity based on their knowledge of what resources are available at their disposal. Here the market is believed to be the prime mover, its central role being to facilitate household involvement in economic activity. Confronted with difficulty, households then make rational decisions to overcome their situations through looking to the market which will facilitate the process of coping. As an example, a household short of money to buy food during drought may make the rational decision to sell livestock or exchange it for food. It is believed that through market exchanges households will cope with crisis of many sorts. I am not necessarily favourable to this neo liberal worldview, as it overlooks the existence of imperfect markets. The view also seems to consider households as altruistic units where the divestiture of assets benefits all household members in periods of crisis. Nonetheless, I will analyse the entitlement failure of poor rural people under the criteria of households.

Selling livestock to buy grain is one thing and selling livestock to buy input is another (see Chapter 9). Selling livestock to buy grain is problematic in that there are no returns obtained from the divestment. Selling livestock to buy input is better, yet risky, when a reliable harvest is not guaranteed. Borrowing from Jeremy Swift's notion of production

and exchange, loss incurred from the time and money invested into planting when no yield has been obtained is something that reflects a production failure, while the selling of one's productive assets to buy non income returning goods reflects an exchange failure (see Swift, 2006). Swift bases his hypothesis on Sen's (1981) essay on entitlement and deprivation. Based on Sen's essay, starvation translates readily into relations of entitlements. The four types of entitlements he puts forward are trade based entitlements, production based, labor based and inheritance/transfer based entitlements.

Relating to trade based entitlements their weakness mainly lies in market access. The rural people in the remote areas of Nyanga and Buhera have no easy access to markets (see Chapter 9). As it is, they find it hard to sell surplus crops in good crop years. Also in as far as trade is concerned; exchange rates are in some cases flawed. Some exchange failure that has been observed in Chapter 9 is where commodities of higher value are exchanged with those of lesser value. I give as an example the exchange of livestock to obtain cash or grain. By traditional standards livestock and cash are not freely convertible, but situations arising mainly from poverty are resulting in the growing divestiture of livestock assets. Such exchange failure commonly occurs in distress sales, where commodities are sold in an urgent manner, and often at a loss. The government's reaction to the divestiture of livestock in general is met with nonchalance. Scoones (2013) says that the assumption is always that all households have livestock, and that they will retain a minimum of 5 goats and 3 cattle. The reality often ignored is that livestock are finite resources that are also exposed to the same famine conditions as the humans.

As for production based entitlements, Sen notes that, socialist economies may not permit, "*private ownership of means of production thereby rendering production based entitlements inoperative except when involving one's labor, elementary tools and raw materials*" (p. 3). Zimbabwe has moved away from nominal socialism, yet it still denies full land ownership to rural people, who under the guise of 'private ownership' access land through customary tenure. Other productive resources do however categorically belong to those with user rights to the land. Incidentally, the one with the primary

usufruct rights also controls the transfer/inheritance based entitlements. More men than women have primary usufruct rights to land.

At the same time, labor based entitlements involving rural people are mostly informal. That is, based on the informal jobs that the rural people partake in (see Chapters 8, 9). The wage rate for these jobs is what is all the more disturbing. As evidenced in the participant narratives in Chapter 9, people were paid at the discretion of the hirer, and often in form of grain. For example a day's work at Nyamaropa was remunerated at 1 gallon of grain. Considering that the market value for 15kg of grain was about $6[223], a gallon of grain (approx. 3.8 kg) would amount to $1.52. In other words, the rural men and women working at these plots earned at least $1.52 for a day's work, roughly translating into $45.60 per month. It is noteworthy that the current World Bank international poverty line is $1.25 per day and the minimum wage (domestic worker rate) in Zimbabwe is $95-$100 per month. The bottom line is, in all the entitlement relations, the poor people have fewer entitlement claims. They are therefore the ones with the least flexibility to respond to environmental change.

Faced with limited survival options, an outlaw culture has ensued in the Zimbabwean rural areas. Notwithstanding the ecological crisis which is evocative of the Sahel Syndrome (over-use of marginal land) and the Rural Exodus Syndrome (degradation of natural resources due to the abandonment of traditional agricultural practices) (see Chapter 7), cases of tree commodification and the poisoning of birds and fish for commerce were also noted (see Chapter 9). An outlaw culture characterised by the degradation of resources by the poor was observed by Marx (1975) as early as 19th century in England. Marx debated the theft of wood, concluding that though illegal, the harvesting of nature was the customary right of the poor. In 21st century Zimbabwe, some participants in my study had also implied that it was their customary right to harvest mineral resources that they had no legal entitlement to (see Chapter 9). In another Zimbabwe study, Moore (2005) also cited a Nyanga man who had said, "*mhuka dze sango inhaka ye povo*" (p. 121), translated to mean, wildlife resources are a poor man's inheritance.

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[223] This is the 2015 rate. Converted from grain to cash, the rural earnings are less than $2 per day, confirming that the rural people in Zimbabwe are indeed found at the BOP (see Prahalad, 2006).

To rationalize peasant delinquency and peasant rights in 19th century England, Foucault (1977) clarified that, "*the illegality of rights, which often meant the survival of the most deprived, tended, with the new status of property, to become an illegality of property*" (p. 85). This implies that *ceteris paribus*, the poor could benefit freely from natural resources, but with the introduction of property rights the poor were criminalized for seeking to benefit from the resources. The problem of peasant delinquency is made even easier to understand by a statement spoken under different circumstances and in a different context. In the words of Mandela (1995), a man denied the right to live the life he believed in, had no choice but to become an outlaw. Allowing for the circumstantial evidence surrounding peasant delinquency, I personally find it hard to pronounce judgment. Without legalizing the peasant outlaw culture I instead I evoke Appadurai (2004) who notes that we know that poor people's ideas about optimising their situations may not be perfect, but asks, do we have better optima to offer them?

Marginalisation theory of vulnerability: omitted aid beneficiaries

According to Rugalema (2000) the euphoria over coping strategies obscures the real experience and suffering of individuals, households and communities. This is because the term 'coping strategies' is often concerned with the analysis of success rather than with failure. This then limits the faculty to explain 'failure in coping' or even the 'failure of coping strategies' (also see Rugalema, 1998). In this section I analyse briefly the failed coping strategies of the rural men and women in my study before looking further to the external assistance that they receive from the State and NGOs. While neoliberal logic suggests that households can cope merely by drawing on the market transactions of their own assets rather than through reliance on external provision, the reality is that when all else has failed, households will look to external assistance for help.

With regard to the coping strategies often used by the rural men and women, those that mostly reflect coping failure are the counterproductive strategies that perpetuate cycles of poverty rather than ameliorating poverty, for example, the cutting down of trees to sell, or the use of pesticides to harvest fish to sell. In light of these strategies, I pose the following questions concerning rural men and women in Zimbabwe,

From a moralistic point of view, how can we consider rural men and women in the semi-arid rural areas of Zimbabwe as coping when they are frequently observed to be vulnerable? Should this not be taken to mean that they lack sound coping options and that therefore they survive mainly on make-shift options?

In explaining the State and NGO recovery responses in rural areas, I firstly address State responses. In the case of most post-colonial turned neo-colonial States, whose political institutions are personalised, and whose liberation ideologies are in perpetual structural disarticulation, the moral obligation of the State to its people is often found wanting. The undercurrents observed in such States are of the schizophrenic rhetoric of nationalism observed by Radhakrishnan (1992). Although Radhakrishnan uses the concept only to allude to female subalterns, I use the term to allude to the post-colonial State that has become a domain of myths of nationalism, lacking the coercive guarantee to advance the interests of rural subalterns. Relating to Zimbabwe, the State's 'Laodicean' attitude towards aid is seen where it is used as a political tool. Evoking Rwezaura et al. (1995), the African State sees itself under no legal or moral obligation to provide, more so, because it is aware of the strengths of the traditional African family in risk sharing. Evidence of this in Zimbabwe, was discussed in Chapter 6, where on destroying 'illegal' structures as part of the *Murambatsvina program*, the State had nonchalantly told the affected to go back to their rural homes[224]. To restate over again, the changing nature of society and eroding familial bonds are leading to the competition for scarce resources. In the absence of both State, and traditional kinship structures, some vulnerable people are left vulnerable. Taking into account that States that lack the coercive guarantee have to be coerced into action (Rodgers, 2008), in order to address this, scholars may have to operate in a manner of 'shameless persistence'.

In terms of NGO responses, I reiterate my argument regarding recovery interventions, which at the basic level are divided into development and relief programmes. As discussed in Chapters 7 and 9, in Zimbabwe, selective targeting seems to apply to both cases. Chapter 9 in particular notes my observation that the selection criterion for most aid is limited to a few poor who are seen as having more need. Yet poverty is a mass

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[224] The AmnestyInternational (2007), also spoke against the illegal human displacements by the government followed by its concerted coercion of displaced people to move to their rural homes.

phenomenon in Zimbabwe, more so in the rural areas that Coltart (2008) terms reservoirs of poverty.

Allowing for what development stands for, it is unexpected that the 'not so poor' people are omitted from aid. For as implied by White (2000), development deals with pathologies - when you have need, development will target you. It is development's normative basis, as Berma and Sulehan (2004) similarly say, to emancipate the poor, marginalised and exploited. In spite of this, in the process of targeting beneficiaries, development's normative basis can become a normative bias. This is because the ways in which development targets beneficiaries may be biased. Chapter 4 highlighted the point that although committed to GAD, some development agencies function through WID. That is, through mainstreaming gender from the position of a single normative perspective that is synonymous to women (True, 2012, p. 37). Also as an example, development practitioners may choose to look at vulnerabilities from a myopic poverty perspective which does not necessarily take into account the concept of social exclusion in its immensity. If we take into account that social exclusion evokes processes such as alterity, marginality, deprivation and destitution (Silver, 1995), i.e. mechanisms of exclusion (deHaan, 1998), it becomes clearer that the scale of 'poor' rural people in Zimbabwe will widen.

Ultimately, as Getecha and Chipika (1995) maintain, donors define what they want to fund, leading them to consistently fail to achieve intended results. Based on the marginalisation theory of vulnerability in Chapter 7, the misconception that aid can bring normalcy is common, but can be misguided, at least as long as little recognition is paid to the real community problems, and actual aid beneficiaries. In the end, "*concurrent shocks, will continue to produce more marginal people – people who have survived but are unable to recover their livelihoods – who are destitute and forced to live in more vulnerable situations*" (Wisner, 1993, p. 9). This confirms the words of Neef (2014) who argues that development – wherever it takes place – always creates winners and losers.

Misalliance between State and NGO

The problem in Zimbabwe is that aid delivery is conducted within a highly polarised political environment. Within this environment the relationship between State and NGO

has been rather tense. Tension can be attributed to Zimbabwe's 2004 NGO Bill which made provisions for the government to tightly regulate the management and administration of development resources for all NGOs, as the government needed a way to ensure that NGO funds were not being wrongly used to support opposition parties (Meyer, 2006)[225]. However, a tense relationship between State and NGO at a time of crisis is less than ideal. As recognised by the 2005 Paris Declaration on Aid Effectiveness[226], for effective aid delivery, the donor and recipient country should work in partnership. That is, there should be inter alia, alignment, harmonisation and mutual accountability between the two parties (OECD, 2012). Even so, Zimbabwe is not a signatory of the Paris Declaration; hence it is not under any legal pressure or obligation to implement its principles[227]. As things stand, the relationship between the State and NGO in Zimbabwe is as caricatured by a local newspaper in image 41.

Image 41: The Situation of Aid in Zimbabwe

Source: The Daily News

As a way forward, the State and NGO have to find meaningful ways to engage with each other for the improved coordination of aid in rural areas. Since Zimbabwe's crisis seems to have turned into a permanent state of emergency, rather than target the same 'poor'

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[225] The NGO Bill of 2004 has more stringent measures put on NGOs working with local governance and human rights issues. Foreign funding for such NGOs was outrightly banned by the State (Meyer, 2006).

[226] The 2005 Paris Declaration on Aid Effectiveness is the Second High Level Forum on Aid Effectiveness. This was followed by the 2008 Accra Agenda for Action and the 2011 Busan Partnership for Effective Development Cooperation.

[227] Zimbabwe is also not a signatory for the Accra Agenda for Action, but it did ratify the Busan Partnership. The act of ratifying global treaties through signature makes the documents signed political rather than merely technocratic prescriptions. Therefore, it appears that Zimbabwe may have been more ready to ratify the Busan Partnership for unlike the former high level forums on aid effectiveness, it does not take the form of a binding agreement or international treaty which if signed would give rise to legal obligations.

people for food aid year in year out, leaving out the 'not so poor', more ways could be devised to build the capacity of the people in the semi-arid areas in fair ways that benefit all the affected. This is so as to benefit everyone, as well as to minimise tensions between the regular beneficiaries and non-beneficiaries who are often said not to qualify for aid. For in the absence of fair aid, some vulnerable people are left vulnerable.

What happened to the moral economy: Familial and kinship (un)dependence

Kinship is a principal source of economic security (Joseph, 1996) and a principal system of allocation of resources (Mvududu & McFadden, 2001). Kinship based sub groups are seen from a social perspective as moral economies, especially following the 1971 essay of historian Edward Thompson, *The Moral Economy of the English Crowd in the Eighteenth Century*. To introduce his essay, Thompson had quoted an excerpt from Proverbs 11: 26 "*He that withholdeth corn, the people shall curse him: but blessing shall be upon the head of him that selleth it*" (see Harding, 1936), the objective being to present an ethical facet to economic exchanges between the ruling elite and their subjects. Accordingly Thompson's is a consumer oriented version of the moral economy. Drawn to this premise, Swift (1993), among other scholars, converted the consumer oriented moral economy into a social one.

Swift argues that kin groups in traditional rural communities have the moral obligation to assist each other in times of drought, by so doing averting famine and mortality. This is a similar finding to Moore (2005) in his study on rural Zimbabwe. Moore additionally points towards social relations coded as friendship which culminate further into reciprocal flows of labour. What Moore describes is evocative of the work parties (*humwe*) mentioned by Scoones et al. (2010), in their Masvingo study (p. 142). Reciprocal exchanges of labour are traditionally known as *nhimbe*. In light of such moral obligations, Eldridge (2002) concluded that kinship dependence was partially why a famine was prevented following the 1992 drought, the worst drought in the living memory of Zimbabwe. Watts (1983a), drew comparable findings from a Hausan drought in Nigeria (see Chapter 3). Other studies making similar inferences include, Rahmato (1987) on the Ethiopian drought among the Wollo in 1984/85; deWaal (2004) on the 1984/85 Darfur drought; as well as Pottier (1988) on the Mambwe people of Zambia. In

a further study on risk sharing in rural Zimbabwe, Dekker (2004) cites examples from participants, most of who saw kinship as a valuable source of assistance,

> *In the communal areas, your relatives will always consider you no matter what* (p. 3)

In my own study, kinship dependence wasn't particularly stressed as a coping mechanism. This is what prompted me to link the omission of this crucial response mechanism to the changing landscape of family. I stress here the loss of moral obligation to the extended family. I cite four strands of evidence to substantiate my claims. Firstly Swift (1993) makes comparisons between the Indian moral economy and the African one and concludes that from the 20th century, reciprocal relations of risk sharing had been declining in Africa, but not nearly as bad as in India. Dekker (2004) also suggests that though risk sharing is still an important aspect of African traditional life in the 21st century, it is not as vibrant a mechanism or as instrumental as before. Thirdly, Rwezaura et al. (1995) reasons that, the changing modes of production, belief systems, residence patterns and technology now circulating in Africa have meant that the family is transforming, re-fitting itself to deal with the changing society (p. 45). The effect of change on family is that,

> *Today there is a struggle over scarce resources…the wage-earner may define 'family' as the nuclear family, and perceive his or her primary obligations as being towards a spouse and children* (p. 38)

> *What may have once been a unit that supported and sustained its members has now become a unit in which members compete for survival* (p. 57)

Lastly, Jayne et al. (2006) also show that where Zimbabwean rural families were traditionally close knit, situations of poverty and disease (high AIDS mortalities) are gradually corroding these ties. This is increasingly seen in the multiplying numbers of child headed households in a society where it was taboo for orphaned children to live on their own. As the foregoing scholars point out, more and more people are abandoning their extended family as they find themselves unable to carry their own financial burdens, let alone the social burden of looking after AIDS orphans. Speaking on the

subject of political instability and the economic crisis in Zimbabwe, South et al. (2012) reinforce the notion that the social fabric is indeed fraying, noting however that there are varying views as to the nature and extent of this. Citing examples from an American study to show that social dynamics such as economic hardships do play an immense role in the fraying of the social fabric or ebbing of community, Pizzigati (2004) said,

> *Deeply unequal distributions of income and wealth keep us from caring. Deeply unequal distributions keep us apart* (p. 358)

Bearing in mind that environmental change encompasses a series of events that are rather processual than static, and that shocks from environmental changes interact with pre-existing conditions of place (e.g. locational and situational contexts) and underlying conditions of society (e.g. inequalities), it is not hard to imagine why mounting pressure from the multiple-stressors combined would inspire the process of individualisation, leading inevitably to the corrosion of traditional moral structures of support. Hence my logical assumption that, Zimbabwean rural men and women are failing to cope even with drought occurrences of lower magnitude than those previously survived (e.g. the 1992 drought), due to the changing nature of family and kinship.

Part Four: Theoretical significance of the study

This study makes three main theoretical contributions. The first two are in response to the knowledge gaps that were identified during the research design, while the third contribution became apparent at a much later stage in the study, borne out of inductive thematic analysis of the findings.

To submit the first theoretical contribution, throughout the thesis emphasis was given to the friction between the widely accepted definition of environmental change which is that of it being biogeochemical processes of change, and the more holistic, albeit less popular definition, which is that of it being a collection of transformations that are biophysical and social in nature. Through its findings, the thesis proved that, indeed, environmental changes are not only biophysical in nature, as the 'physical' in environmental change cannot be extricated from the 'social'. In Chapter 8, the inextricability of biophysical and social changes was made evident (see fig 28).

Biophysical changes such as erratic rainfall and reduced crop productivity were seen to be ensued by social changes such as hunger and poverty situations. Due to limited mechanisms to cope with the hunger, survival skills that degrade the natural resource base were then used, resulting in more biophysical change in the form of deforestation or land degradation. This only deepened the hunger and poverty situations. The poverty-environment relationship is one which has received a lot scholarly attention (see Chapter 7). However, as it relates to environmental change, and especially, in Zimbabwe, the clear link between biophysical and social changes has not been stressed enough, if at all, and my study does this.

Figure 28: Environmental changes at work
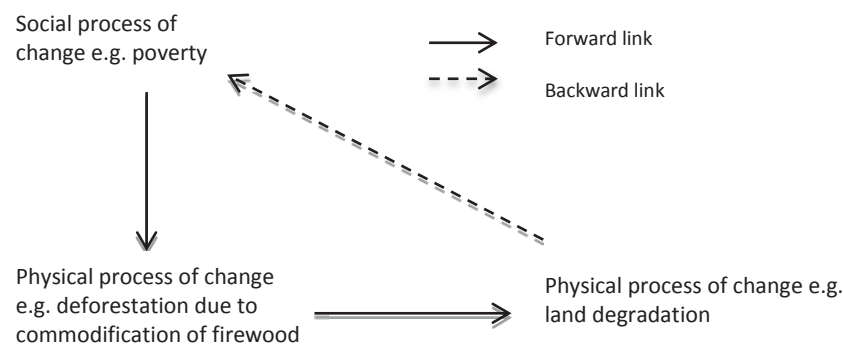
Source: Author

As argued by the thesis, an ill-defined definition of environmental change will attract insufficient solutions for environmental change. To demonstrate why I say this, although Zimbabwe's climate policy is still implied rather than stated (see Chapter 2), Zimbabwe has been following the GEC rhetoric, seeking to gain from global instruments of climate change as part of a national response to environmental change. Due to the fact that environmental change is defined from a technocratic and scientific standpoint whereby climate change transcends all other environmental changes, Zimbabwe's action to seek solutions for local environmental change from global instruments for climate change is a job half done. Market based instruments for carbon emissions trading such as the Joint Implementation (JI) and Clean Development Mechanism (CDM)[228] are among the global solutions for dealing with climate change; yet, the instruments currently do not benefit

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[228] The CDM is the one that is designed for developing countries like Zimbabwe.

lower emitting African countries like Zimbabwe[229]. To contest the CDM, Margaret Mukahanana the former Permanent Secretary for the Zimbabwean Ministry of Environment had argued that countries like Zimbabwe do not benefit from the global instruments because,

> *There are no big CDM projects in Africa, because, apart from in South Africa, countries' emissions are so low. So what are you going to reduce? The only thing you can do is avoid future emissions (see Palitza, 2009, p. line 13)*

The response given by CDM Executive Board chair Lex de Jonge was that,

> *(Countries) have to stop playing the victims here in Africa. Its complex and I acknowledge that there are quite some challenges. Most proposed projects never come to life. But that's just a reality of the business (see Palitza, 2009, p. line 34)*

I say this to argue that, when environmental change is looked at as a technocratic subject accessed only through a global frame and by a technocratic few, it would seem that global instruments would provide solutions for local environmental changes, but this is not always the case. What this means for development is that, the vulnerable people in vulnerable micro localities will remain vulnerable as the rich people make money out of their vulnerability. For, without understanding the pattern and magnitude of environmental change and how this relates to policy driven areas such as gender and rural poverty, it will be inappropriate to devise policy interventions based on some social scientists' imaginative capacities (see Salih, 2001).

Again, when environmental change is looked at as a technocratic term, accessed only by a technocratic few, the meaning of environmental change to everyday local people is not fully understood. For, the meaning of environmental change to local people, is not based on some text book definition, or global vision, but is based on subjective lived experience. As a result, what is termed global may not necessarily be reflective of local

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[229] Even if less industrialised countries were to benefit immensely from the CDM, the derivatives market largely profits the middlemen, brokerages, financial institutions and institutional interests and has little to do with the grassroots people. This strengthens further the income inequalities between the rich and poor.

realities. Thus, the thesis argues that local people ought to be allowed to define environmental changes of communal concern.

Still on the question of environmental change and scale, the thesis also found the globalising of environmental changes to be misleading, more so, when the local is the unit of analysis. This is because global problems are easily displaced by events that the local people perceive as being more perceptible or outstanding at any given time. As such, when environmental change is looked at from a global perspective, what it means in local environments is again lost. So rather than wait for local problems to be defined through a global lens which effects global solutions but does not always address local problems, local governments should take the initiative of dealing with local problems in order to build the resiliency of local populations to withstand even the global problems.

The second theoretical contribution that this thesis makes is in relation to gender and assessments of vulnerability in Zimbabwe. Chapter 1 mentioned that on one hand, environmental studies in Zimbabwe often treat farmers as a unitary category, overlooking the differential vulnerabilities between men and women farmers. Whereas, on the other hand, gender studies approach the vulnerability of rural men and women from a womanist point of view, overlooking the intersectionality of gender with other markers of social difference. As observed in this thesis however, environmental changes in Zimbabwe are generally taking place within a politically charged and economically unstable environment (situational context). On closely inspecting the impact of environmental changes in rural areas, what is again apparent, are the realities of the pre-existing conditions of fragile regions that give rise to marginal livelihoods (locational context).

Because environmental change heightens the existing problems in a place, the multi-facetedness of the stressors that the rural men and women end up having to cope with makes it difficult to ascertain gender differentiated risk. Earlier in this chapter, Masika (2002) also acknowledged the difficulties that arise when trying to assess gender differentiated risk in crisis environments. Thus, while gender impacts remain certain even in crisis environments, it is much difficult to pinpoint vulnerability that is solely attributable to gender, than it is to simply acknowledge that both men and women are

vulnerable, albeit in different ways. Figure 29 below shows the intricateness of the Zimbabwean situation, presenting the various intersectionalities that are related to bodies and space which create subjectivities that are crucial for the understanding of the differential vulnerabilities of the rural men and women in Zimbabwe.

Figure 29: Illustrating intersectionality in vulnerability (2)
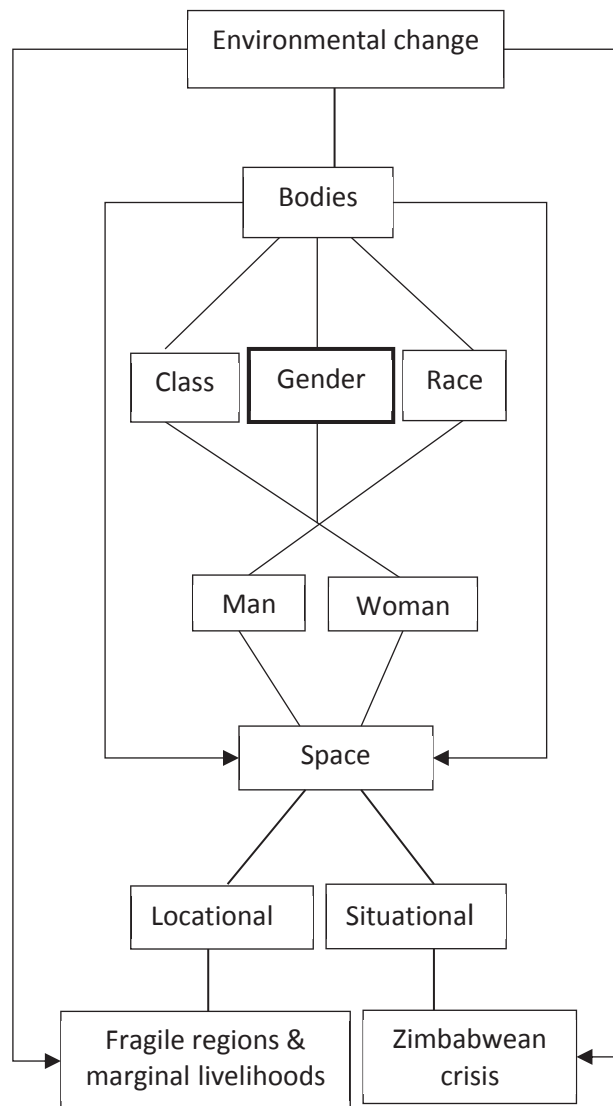
Source: Author

**To shed light on why 'race' is a crucial component in post-colonial Zimbabwe, it is linked to the historical Land Apportionment Act of 1930 which settled the bulk of the rural men and women in fragile regions to start with (see Chapters 1 and 4).

The illustration was evolved from Chapter 4. Two points stand out from the illustration. The first being that, the intersectionality of gender with other markers of social difference is crucial when seeking to understand vulnerability, especially in crisis

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environments, and the second being that, the intersectionality of gender with space is also crucial when seeking to understand vulnerability in crisis environments. The standpoints highlighted above Figure 29 are crucial because, in this thesis it was shown that context can in fact disrupt normative assumptions of vulnerability. For example, due to the unifying qualities of context, we witnessed dissimilar case study areas, but were presented with similar experiences of environmental change and coping mechanisms between the men and women in Buhera and Nyanga. Some slight variations were however noted, as is seen in Table 25 below.

Table 25: Overall experience of environmental change

Overall experience of environmental change	**Gender based (men vs. women)**
	The overall experience of environmental change was similar between men and women, as both had cited extreme difficulties in coping with physical changes such as erratic rainfall, seasonal shifts and temperature increases as well as social changes such as unviability of faming, hunger and shortage of money. There were variations however in gender perceptions of social events and phenomena. This is where women had shown more preoccupation with social changes such as hunger, whereas men had seemed more preoccupied with job losses. The coping mechanisms engaged by the men and women were also similar in many respects, with slight variations in some, based on gender roles. As an example, women engaged more in searching for grain, wild fruits and vegetables, where men went to extremes such as illegal mining and illegal tree selling. However, there were also noted shifts in gender roles, including role sharing among the men and women. In terms of shifts in gender roles, in few cases, women were seen assuming the bread winner role, as the men stayed home with the children. In terms of role sharing, some men had stated that they now helped with domestic tasks such as fetching firewood, for with increased scarcity of trees; it had become risky for women to venture too far off from the security of the domestic sphere. In another case noted in Nyanga, a man had said that, when his wife went to the river to do laundry and fetch water, he would take over the duty of preparing supper, as she would return home late, for the nearest river was a long distance away.
	Case study based (Buhera vs. Nyanga)
	The overall experience of environmental change was similar between men and women in Buhera and Nyanga, as both had cited the same hardships. That is, in terms of the environmental changes experienced, the rural disadvantage and situations of crisis they were exposed to. Similar coping mechanisms were also noted between the two case study areas, but with slight variations. As an example, in Nyanga there were regions of hope within the same District. Since Nyanga has all farming regions I-V, those people found in the drier regions like Chapatarongo were seen to travel to more productive regions like Nyamaropa, Bende and Nyakomba to either work in people's fields or purchase grain. Also based on the closest resources available to them, in Nyanga, some men went to the Nyamukondeza Mountains to illegally mine gold, whereas in Buhera, the closest mine that the people used to go to mine illegally were the diamond mines in Chiadzwa that had become State secured. However, in Buhera, the people in Gunura had an irrigation scheme which was within their ward but was not operational at the time of the study, whereas the people in Chapatarongo (Nyanga) had no irrigation facility within their ward, and had to travel to other wards to seek employment in the irrigation facilities which were present there. For the most part however, the survival skills adopted in Nyanga and Buhera were very much similar.

To comment more on the overall experience of environmental change, in Chapter 9, I strongly pointed out that, while the survival skills did not exactly match the diversity of the two case study areas, they reflected the people's actual experiences, and trying to concoct the survival skills to match the diversity of the case studies would be misrepresenting people's actual experiences.

Nonetheless, due to environmental change, tensions between continuity and schism were seen in the thesis[230]. To cite few examples, in terms of gender roles, traditional patterns of sexual division of labour were seen being challenged at times. And in terms of status, patriarchal privilege was seen, in many instances, failing to keep men from being vulnerable. An assumption was also made in this thesis, that, environmental changes were transforming household relations causing the social fabric to fray, impacting of course, on the function of family as contingence during risk. Although not related to gender, there was an oscillation noted between tradition and modernity, which was made more apparent due to environmental change. For the most part, the older participants were of the opinion that environmental changes such as those related to weather changes were punitive, as more people had abandoned tradition, preferring modern ways of living. The thesis explained however, that while rationality such as not following tradition was not scientific, it was rational to the extent that it validated the reality of those being affected by the environmental changes.

To draw on more contributions of the thesis that are in relation to gender, the thesis showed the methodological shortcomings of the gender analysis in assessments of vulnerability. To maintain fairness in vulnerability assessments of gender, I thus recommended that gender analysis be used alongside other qualitative research methods.

Last, but not least, having realised that the nature and patterns of environmental change and their impact towards gendered vulnerability have not been consolidated fully in conceptual lineages of vulnerability research, I formulated a framework to help the study conceptualise the nexus between environmental change, vulnerability and gender.

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[230] Dichotomous processes observed also by Salih (2001) in his study on local environmental changes in Africa.

Presented in Chapter 4 and evolved in Chapter 6, the framework advances the notion that exposure to biophysical change is non-gendered, meaning that men and women within the same geographic space are likely to receive equal magnitude, duration and frequency of biophysical change (see fig 30).

Figure 30: Summary of the conceptual framework
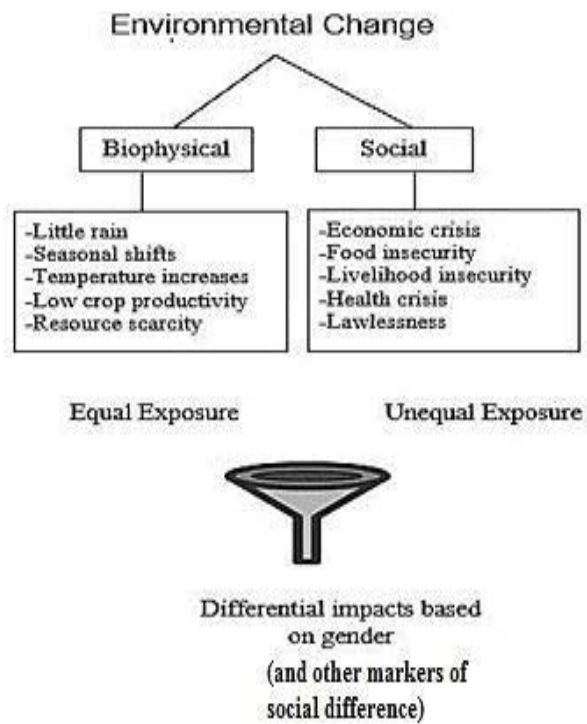
Source: Author

I used the example of the ecological bottleneck effect to justify why there is no natural selection in who receives more intensity of floods, or duration of drought between men and women living in the same geographic space, because nature is oblivious to gender. To support my argument, in Chapter 4, I went on to clarify that I consider the spatial domain as being the neutral space where biophysical changes are felt evenly in terms of magnitude, frequency and duration of occurrence, and the social domain as the space where the effects of the biophysical occurrence translate into different experiences for different people based on social difference. For environmental changes of social form however, my study maintains that unequal exposure is guaranteed from inception, for social systems are actor-oriented and the effects of social changes are moderated by patterns and characteristics of relationships occurring within a social structure - that give rise to differential vulnerabilities between individuals.

To illustrate the theoretical contribution of my conceptual framework further at this point, I use the illustration of shapes in Figure 31 below.

Figure 31: reillustrating the conceptual framework
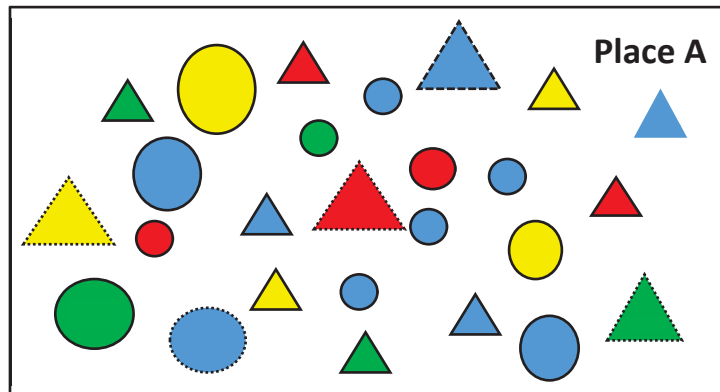
Source: Author

The illustration above shows triangles and circles of various sizes and colours. Supposing that the triangles represented women and the circles men, both residing in place 'A', temperature increases would not necessarily target women, and leave out the men. This is to reinforce the view that, nature does not discriminate based on gender, but that it is the social characteristics of place that filter the impacts of biophysical changes. Therefore if, the triangles (women) had roles that exposed them to more conditions of heat, than the circles (men), they then would receive more magnitude, frequency and duration of heat stress in comparison to the circles (men). In my study, temperature increases were noted as being an environmental change of communal concern. Based on participant narratives, it was observed that, due to their roles as carers and food producers, the women got exposed to a lot of heat, for instance, when walking to fetch firewood, or when working in the fields. Yet it was also observed that men were impacted on also by heat in their roles as food producers and primary bread winners. Although literature generally attributes all food production in the rural home to women (see Chapter 4), men tend to work in the fields and are also exposed to the same conditions of heat as the women. Also, while some men had indicated that they now helped their wives with domestic tasks such as fetching firewood, in general, men fetched firewood for the purposes of selling to earn a living, and were exposed to heat too during these tasks. Without equating men's exposure to heat to that of women's, my point is, the men and women in my study were being affected by heat, albeit in ways

which are qualitatively and quantitatively different. All the same, biophysical changes such as heat stress do affect both genders as noted also in a study by Williams (2015) who records cases of Indian female tea pickers and El Savadorian male sugar cane workers dying due to heat stress related kidney failure. Thus, as Barker et al. (2010, p. 13) point out, "it *is possible to acknowledge [vulnerability] simultaneously without reinforcing a hydraulic view of gender relations in which giving attention to men is seen as taking away power from women and vice versa".* For, as they acknowledge, *"the problem arises when simplistic stereotypes of victimised and powerless women on one side and supposedly powerful and violent men on the other predominate".* And as they conclude, *"Women's aggregate vulnerabilities are real and men's aggregate vulnerabilities are equally real".*

The third and final theoretical contribution of this thesis is that of the marginalisation theory of vulnerability within the Zimbabwean context of crisis. The thesis showed that in Zimbabwe, exclusionary politics of aid are underlined by 4 main biases which are; pathology bias, poverty bias, partisan bias and gender bias. As stated in Chapter 9, I am particularly at odds with the last three biases. With the exception of partisan bias which is outrightly unethical, the thesis showed that in Zimbabwe, beneficiary selection for aid is often subject to normative biases that are informed by insular views on gender and of poverty respectively. Reverting to the illustration of triangles and circles shown in Figure 31, a closer look at the shapes shows that, there are triangles that are larger than some circles, as well as, triangles that are the same colour as some circles. The intersectionalities cited are inherent features of the shapes that are crucial as they reveal the multiple dimensions of identity of these shapes.

Aid administered based on misperceptions of the beneficiary criteria is thus evocative of insularity towards multiple dimensions of identity. Paralleling the illustration of shapes with instances noted in my thesis, targeting only one shape, on the basis of its shape, without taking into account multiple dimensions of its identity in relation to the shape omitted has resonance with participant statements such as, (1) "then they said to me, ah, move over, you are not thin" (2) "that women are vulnerable is nothing new, similar to all 'headed household' this is the norm" and (3) "when they come with their programmes, year in year out, it is the same people who are being targeted".

Altogether, as South et al. (2012) also confirm, aid agencies generally do not seem to use selection criterion which is tailored to a particular context, but use that which is standardised, designed to fit the requirements of the agency headquarters and or funding partners. Thus, aid agencies often consider the relevance of context to the extent that it helps triage development programme responses according to relief or humanitarian aid. Finally, in relation to gender, aid agencies generally do not seem to consider the intersectionality of gender with other markers of social difference. In the end, as Wisner (1993, p. 9) says, "*concurrent shocks, will continue to produce more marginal people – people who have survived but are unable to recover their livelihoods – who are destitute and forced to live in more vulnerable situations*". Thus, vulnerable people are left vulnerable.

In the next chapter, I conclude the study and propose recommendations for policy, practice and future research.

Chapter 11: Conclusion

Introduction

In concluding this thesis this last chapter returns to the overall research aim, which was to consider critically, the experiences and perceptions of Zimbabwean rural men and women to environmental change so as to ascertain gendered impacts and differential vulnerabilities. As part of concluding the study, the chapter will focus on the question – Does gender matter in crisis environments? This is to reflect on the implications of the findings of this study, particularly in relation to analyses of gendered vulnerability in crisis environments. In addition, the chapter will re-examine the debate on scale, that is, the local vs the global, to reinforce the importance of the local in the identification and formulation of solutions in relation to environmental changes that impact people living in rural areas. Finally, recommendations speaking to rurality, gender, vulnerability and environmental change will be proposed for development policy, research and practice.

Does Gender matter in Crisis Environments?

The study showed that the question of gendered vulnerability is far more complex than what is often implied, especially when understood in the light of a pervasive rural poverty and a context of crisis. However, as highlighted in the study, the basis for incorporating gender in analyses of vulnerability is simple, as this boils down to the question of difference. Thus, it was explained that we look at gender in vulnerability assessments because gender difference presents a strong possibility of gender differentiated risk to environmental change. As it was shown further, the gender specifics that are readily accepted in vulnerability studies are that, due to the application, allocation and legitimation of power in society, women as a group are more politically disempowered and economically disenfranchised than men, and that due to polarised gender domains, women occupy more disadvantaged positions than men hence their roles are more undignified and overwhelming. On these grounds it is assumed that women have more limited capacities for coping with environmental change than men which has led to the ideation of vulnerable women.

Through its findings the study demonstrated however, that in Zimbabwe, the rural disadvantage and the enveloping economic crisis make rural men and women susceptible to environmental changes even before we can start to look at gender relations showing *who has what*, *who does what* or *who decides what*? Drawing on the voices of the rural men and women, the thesis showed that stresses from the environmental changes that are experienced by the rural men and women interact with forces from a macrocosmic crisis. Furthermore, their coping strategies are also nested in this changing and fluctuating economic, political and ecological environment. Thus when asked who was more vulnerable men or women, the overriding response from the participants had been that, everyone is vulnerable. Bearing in mind the intricate nature of the multiple stressors that the rural men have to cope with, which is notwithstanding their already limited coping capacities, this study chose to agree with the participants that, both rural men's aggregate vulnerabilities are real and women's aggregate vulnerabilities are real. The study went on to qualify, however, that the vulnerabilities of the rural men and women differ qualitatively and quantitatively.

To now answer the question - Does gender matter in crisis environments? In view of the findings of this study, the answer is yes and no. Yes gender matters because through analysing gender differences the study was able to see how men and women were affected differently and how they coped differently with environmental change. Yet still, I also argue that 'No' gender does not matter in crisis environments, intersectionality matters. For, intersectionality not only allowed the study to explore how men and women were being affected differently by environmental change, but it also allowed the study to ask boldly, which men, which women? Thus the study had observed that, in crisis environments, gender does not necessarily transcend other forms of disadvantage. For by virtue of being situated in fragile rural areas, also being poor in a country that is plagued by crisis, the rural men and women had lacked sufficient means of coping with environmental change.

Finally, in interrogating the gender construct in vulnerability, this study showed that it is always crucial to question whether or not the gender construct is being used as a fair analytic category to assess vulnerabilities.

Rethinking global environmental change (GEC) in local contexts

As seen throughout the thesis, issues of scale contribute to a complex array of competing and conflicting claims. In Chapter 2, I contested the technically-based definition of the environment from which the narrowed view of global environmental change is derived. My view was that in treating environmental change as being technical and global we may fail to give an accurate depiction of local realities, and this justifies the need to explore the various perspectives of local people concerning what constitutes environmental changes of communal concern. Where the global is the frame of reference for environmental change, the local people may relate only to the processes of environmental change taking place within their localities and the concept of environmental change may remain impenetrable and distant to them. As demonstrated through this study, to a Zimbabwean rural woman who is daily presented with the burden of resource scarcity manifested in depleting firewood and drying up water sources, the understanding of environmental change is more local than global. Equally, to a Zimbabwean rural man struggling to compete against the degenerating economy and its exponential strain on his ability to provide for his family, environmental change is a resident evil requiring urgent action, but one that emanates from the local rather than from the global.

Moreover, when treated purely as a science, the concept of environmental change is often preoccupied with scientific simulations and forecasts of physical changes that will take place in the future. Whereas through participant narratives this study has shown the urgency linked to the environmental changes of communal concern in Zimbabwean rural areas is interwoven with the insecurity and hopelessness felt in the 'here and now'. Indeed, some of the coping mechanisms adopted by the participants showed the urgency of wanting to survive in the 'here and now'. Thus, when narrating his experiences of environmental change, one male participant uttered the Shona Proverb, *kukurukura hunge wapotswa*[231] [SSI, man, Nyanga].

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[231] Shona Proverb which means that you can only tell a tale when you have lived to tell it.

Recommendations

In the final analysis, the following recommendations should be noted.

Recommendation #1 Rurality

Given that rural poverty is mostly tied to poverty of space, the prioritization of rural development is necessary to move rural people out of the poverty bracket, empowering them to readily anticipate, cope with and recover from the impacts of environmental change. Whilst avoiding falling into the category of many Zimbabwean researchers who, at the end of their research, draw up a list of monotonously stated recommendations such as, 'there is need for the revitalization of market infrastructure in the form of transport and communication networks, as well as the revitalization of irrigation infrastructure' as if these are novel development needs, I bring into focus the problematic biases which may cause the most vulnerable people in the rural areas to be overlooked. The biases are a result of a practice called development tourism which was identified by Chambers (2006b). As Chambers points out, often when outsiders enter the rural areas at scheduled times and at their convenience (seasonal bias)[232] rural people usually wear special faces to receive the visitors. Working within a tight schedule, the visitors see what they want to see (roadside bias)[233], and talk to a few people (person bias)[234] in relation to what they want to fund (project bias),[235] before retiring back to their more privileged places of abode. In the words of Chambers, after the outsider leaves "*the village returns to normal, no longer wearing its special face. When darkness falls, and people talk more freely, the visitor is not there*" (p. 16). The point is, for effective rural development that comes through understanding the real structure of

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[232] Chambers' rural biases are listed in Chapter 1 but only the spatial bias is explained in detail in Chapter 10. In relation to the seasonal or dry season bias outsiders prefer to visit rural areas when the weather is nice and to their own taste. Yet by doing so, they may miss the other seasons when hunger is higher, and poverty more evident.

[233] Often the outsiders visit places which have easy access, preferably those with tarmac surfaces and also those places which are by the roadside. Outsiders often avoid the very remote places, but this is where most poor rural people live.

[234] Person biases are reflected through the engagement by outsiders with people in strategic positions such as village leaders, progressive farmers, agro dealers and paraprofessionals. The outsiders are often biased against the poor. However as Chambers also suggests, finding themselves head to head with rich people in a crowd, the poor generally do out speak out anyway.

[235] Outsiders often visit communities with a made up mind of what they want to fund, for example, there are rural projects which are generally known to attract more international funding, for example, gender projects will target women more as putting women first is more fundable. In essence, outsiders define what they want to fund.

rural poverty, there needs to be continuous engagement of outsiders with the rural people. This entails the total submersion of the outsiders in the rural spaces. To make recommendations from afar based on outsider intelligence of insider problems is a biased way of addressing the needs of the rural people. It is an assumptive way of saying that outsiders know better what the rural people need than the rural people themselves. In the process the needs of the rural people are not effectively addressed.

Recommendation #2 Vulnerability

There is a tendency in Zimbabwe to the conflate vulnerability with certain identity groups, yet vulnerability is primarily a precondition for humanity. This is its original state before empirical filters were applied to suit investigational needs. On account of existential vulnerability, which is not necessarily central to this study, refusing people their humanly right to be vulnerable is a form of dehumanisation, and on account of risk contingent vulnerability, which is central to this study, denying a certain gender the right to be vulnerable is a dehumanisation by gender. In both cases, the risk factors are often the mediums that will communicate the dehumanisation that will already be at play. Taking this into account, policy, research and practice should make allowances for vulnerability cases that may differ from normative prescriptions for vulnerability.

Recommendation #3 Gender

Although there has been a worldwide shift in development thought surrounding gender as seen by the progression from WID to GAD, in Zimbabwe there seems to be a slippage between international research and local policy, research, and practice. In this context gender is still looked at mostly from a womanist point of view. Accordingly, there is need for a move towards a holistic understanding of gender that sees men and women as gendered beings. This holistic approach enables a better understanding of the ways through which women and weaker men are dominated by hegemonic masculinity. Bearing in mind that some women (powerful) may benefit more from the patriarchal budget than some men (powerless), future research should in addition inspect the ways through which embedded feminism may share the same nest(s) with hegemonic masculinity (see Muchemwa and Muponde, 2007).

Recommendation #4 Environmental change

Zimbabwe currently utilises the Western-oriented meaning of environmental change which is technocratic and reflects mostly those environmental changes that are determined by the global before being imposed onto the local. By reviewing global and local realities, it will become evident to policy makers, researchers and practitioners that what may be considered as environmental change at global level may have no direct relevance at the local level. This calls for effort to be made to engage the voices of the local people, and more particularly the rural poor, to hear firsthand their experiences and perceptions of environmental change. While the perceptual cognition of the laymen may fail to match scientific computations, people's perceptions are vital in identifying problems of communal concern, including the causal structures, and actions taken in responding to perceived threats.

Closing Remarks

In the preliminary pages of this thesis, I delineated four key concepts that have frequently fallen prey to normative aspirations within the knowledge space to disambiguate and make firm delineations regarding how they would be used in the context of the study. These are rurality, vulnerability, gender and environmental change Throughout the thesis I have shown the effects of how such terms can be used myopically in research, policy and practice to the point of 'misrepresenting, alienating and dehumanising' some groups of people. Thus, I end this chapter by citing Chambers (2004) who warns against how terms (especially in combination) are often used empirically. Terms, he says, may serve well to expand disciplinary views and provide bridges between disciplines, but like blinkers, may limit the range of how we view things. This is through standardising and depersonalising phenomena to the point that we actually miss what matters most to the people (p. 5). In a development sense, we would have missed the mark of creating good change through putting the people first.

Appendix A: Low risk ethics notification

MASSEY UNIVERSITY
TE KUNENGA KI PŪREHUROA

5 June 2013

Dorcas Shumba
PhD Candidate
School of People, Environment and Planning
PN331

Dear Dorcas

Re: **Understanding the Gender Dimensions of Environmental Change: A Study Exploring the Experiences and Perceptions of Rural Men and Women in Zimbabwe**

Thank you for your Low Risk Notification which was received on 28 May 2013.

Your project has been recorded on the Low Risk Database which is reported in the Annual Report of the Massey University Human Ethics Committees.

The low risk notification for this project is valid for a maximum of three years.

Please notify me if situations subsequently occur which cause you to reconsider your initial ethical analysis that it is safe to proceed without approval by one of the University's Human Ethics Committees.

Please note that travel undertaken by students must be approved by the supervisor and the relevant Pro Vice-Chancellor and be in accordance with the Policy and Procedures for Course-Related Student Travel Overseas. In addition, the supervisor must advise the University's Insurance Officer.

A reminder to include the following statement on all public documents:

"This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University's Human Ethics Committees. The researcher(s) named above are responsible for the ethical conduct of this research.

If you have any concerns about the conduct of this research that you wish to raise with someone other than the researcher(s), please contact Professor John O'Neill, Director (Research Ethics), telephone 06 350 5249, e-mail humanethics@massey.ac.nz".

Please note that if a sponsoring organisation, funding authority or a journal in which you wish to publish requires evidence of committee approval (with an approval number), you will have to provide a full application to one of the University's Human Ethics Committees. You should also note that such an approval can only be provided prior to the commencement of the research.

Yours sincerely

J. O'Neill

John G O'Neill (Professor)
Chair, Human Ethics Chairs' Committee and
Director (Research Ethics)

cc   Dr Rochelle Stewart-Withers   Mrs Mary Roberts, HoS Secretary
         School of People, Environment and Planning   School of People, Environment and Planning
         PN331   **PN331**

Massey University Human Ethics Committee
Accredited by the Health Research Council

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Appendix B: Information sheet

Massey University

School of People, Planning and Environment, Institute of Development Studies

INFORMATION SHEET FOR PARTICIPANTS

Dear Participant,

You are invited to take part in my study titled, '*The Gender Dimensions of Environmental Change: An exploration of the experiences and perceptions of rural men and women in Zimbabwe*'. This research is part of a PhD thesis at Massey University in New Zealand.

The purpose of the research is to understand what environmental changes have been taking place within the Zimbabwean rural context and how men and women are differently vulnerable. I would like to ask questions about your experiences of environmental change. That is, what it is like for you, your thoughts, your feelings as well as situations and events that are connected to your experience. In particular I will ask (1) which experiences of change have been most critical in your life (2) what you perceive to be the causes of the changes (3) what coping mechanisms you have adopted, in responding to environmental change and (4) who you think has been the most vulnerable to environmental change, men or women.

It is up to you to decide whether or not to take part. If you decide to take part you will be asked to sign a consent form. You can change your mind at any time and withdraw from the study without giving a reason.

The information gained from this research will be used to offer insights into the experiences of the gendered impacts of environmental change and the differential vulnerabilities of rural men and women. The information gained from this research will also be used to make recommendations for policy, practice and future research.

The interview will be recorded on audio tape and then transcribed onto a computer. The audio tapes will be stored in a locked secure place at all times and the computer data will be protected from intrusion also. Your response will be treated with full confidentiality and anonymity is guaranteed to anyone who takes part in the research. The research has been reviewed and approved by the Research Ethics Committee at Massey University.

I hope this has explained fully my aim for undertaking the research, but please feel free to ask questions or ask me to clarify on anything that you did not understand.

Dorcas Shumba
PhD Student, Massey University

Appendix C: Participant consent form

Massey University

School of People, Planning and Environment, Institute of Development Studies

The Gender Dimensions of Environmental Change
An Exploration of the Experiences and Perceptions of Rural Men and Women in Zimbabwe

PARTICIPANT CONSENT FORM - INDIVIDUAL

I have read the Information Sheet and have had the details of the study explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I agree/do not agree to the interview being sound recorded.

I agree/do not agree to the interview being image recorded.

I wish/do not wish to have my recordings returned to me.

I wish/do not wish to have data placed in an official archive.

I agree to participate in this study under the conditions set out in the Information Sheet.

Signature: _____ Date: _____

Appendix D: Research plan

Research Guidelines : Buhera ☐ Nyanga ■	Data Gathering Methods	Year – 2013											
		1	2	3	4	5	6	7	8	9	10	11	12
RQ1: Experiences of change													
1. What are the types of environmental changes experienced?	Semi structured Interviews, Timelines, Seasonal Calendars,												
2. What is the magnitude, frequency and duration of shocks?	Semi Structured Interviews, Timelines, Seasonal Calendars,												
RQ2: Causality													
1. What do they think is causing the environmental changes?	Semi Structured Interviews, FGDS												
RQ3: Coping Mechanisms													
1. What are the principal livelihood strategies of the rural men and women?	Semi Structured Interviews FGDs, Community Mapping												
2. What are the precautionary or crisis strategies used specifically to cope with shocks?	Semi Structured Interviews FGDs												
3. Is there any institutional response aid or assistance given to the rural men and women, by whom?	Semi Structured Interviews, Key informant interviews												
RQ4: Casualties													
1. Who among the men and women has been impacted on more by the environmental changes, and how?	Semi Structured Interviews, FGDs, Gender Analysis (HAF)												
2. Who does what?	Gender Analysis (HAF)												
3. Who has what assets?	Gender Analysis (HAF)												
4. Who makes decisions?	Gender Analysis (HAF)												

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