

Copyright is owned by the Author of the thesis. Permission is given for a copy to be downloaded by an individual for the purpose of research and private study only. The thesis may not be reproduced elsewhere without the permission of the Author.

# **The Gender Dimensions of Environmental Change**

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

A thesis submitted in partial fulfilment of the requirements for the degree of  
Doctor of Philosophy in Development Studies at Massey University, Manawatu,  
New Zealand

Submitted by  
Dorcas Stellah Tsitsi Shumba

2016



## 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.



## Acknowledgements

I am blessed to have been surrounded by a great cloud of witnesses who cheered me on in my PhD journey, in this way contributing to my success. I acknowledge first God my creator, to whom I owe my entire success.

I am thankful for the support of my parents, Mordecai and Tsitsi Shumba who gave me life, taught me that the sky is the limit and then gave me wings so that I could fly. I am grateful for Mudiwa my son whose existence and presence in my life gave me the will to push till the very end. As for the opportunities that have been set before me, I have utilised them all to the best of my ability so that “you Mudiwa (and the yet to be born Muchero and Muranzi) can enjoy the benefits and have a better life”. I am indebted to my sisters Grace, Trish and Moreblessing Shumba who have been a source of comfort and great pillars of strength. My best friend Sally Mwaketa, my sister from another mother, is another source of comfort whose relentless motivation cannot be understated. My New Zealand parents Grace and Anthony Munemo have been amazing in their own special way. I cannot thank them enough for the kindness that they have showered me with.

This thesis would not have been a success had it also not been for GOAL Zimbabwe that offered me tremendous support during fieldwork. Special mention goes to Assistant Country Director, Joseph Kamuzhanje. I also thank my Agritex field assistants Mr. Makuyana, Ms. Dzengerere, Mr. Dzimano and Mr. Musuka for their help in the field. To Anri Landman Menderson, “it was a pleasure doing key informant interviews with you my friend. Wish you success in your own PhD journey”.

Finally, I thank my Massey family for their great support in my PhD journey. Life would have been dull without my PhD colleagues, Dora, Yuenheng, Babar, Dean, Andrew, Axel, Amalia, Eka, June, Ginny, Lee and Hina. Thank you. From the very bottom of my heart, I thank also my supervisors Dr Rochelle Stewart-Withers and Dr Sharon McLennan for their valuable time and priceless advice. I would not have been able to make it had it not been for their patience with me. I recognise also Professor Regina Scheyvens for her guidance in my thesis. Last but not least, I thank the Institute of Development Studies

for the Graduate Research Fund and the Massey Doctoral Scholarship Committee for the Massey Doctoral Scholarship and Massey Doctoral Completion Bursary.

# Table of Contents

<b>Abstract</b> .....	<b>iii</b>
<b>Acknowledgements</b> .....	<b>v</b>
<b>Table of Contents</b> .....	<b>vii</b>
<b>List of Figures</b> .....	<b>xi</b>
<b>List of Tables</b> .....	<b>xii</b>
<b>Acronyms</b> .....	<b>xiii</b>
<b>Chapter 1: Introduction</b> .....	<b>1</b>
PERSONAL MOTIVATION.....	1
DELINEATING KEY CONCEPTS.....	2
<i>Rurality</i> .....	2
<i>Vulnerability</i> .....	3
<i>Gender</i> .....	4
<i>Environmental change</i> .....	4
THE THESIS PROBLEM OUTLINED.....	5
RESEARCH AIM AND RESEARCH QUESTIONS .....	14
RESEARCH GAPS .....	15
THESIS STRUCTURE .....	17
<b>Chapter 2: Simplifying Environmental Change</b> .....	<b>21</b>
INTRODUCTION .....	21
DEFINING ENVIRONMENTAL CHANGE .....	21
<i>Environment</i> .....	22
<i>Change</i> .....	24
<i>Environmental Change</i> .....	32
TOWARDS THE JUSTIFICATION AND CONTESTATION OF GEC .....	34
<i>GEC and the Politics of Homogeneity</i> .....	34
<i>GEC and the Politics of Hegemony</i> .....	37
<i>GEC and the Politics of Scale</i> .....	40
TREADING THROUGH COMPETING IDEOLOGIES: SELECTING A CONCEPTUAL FRAMEWORK ...	42
<i>Environmental Change and Africa</i> .....	47
CONCLUSION .....	52
<b>Chapter 3: Vulnerability to Environmental Change</b> .....	<b>55</b>
INTRODUCTION .....	55
WHAT IS VULNERABILITY?.....	56
<i>Social and Biophysical Vulnerability</i> .....	60
<i>Risk and Vulnerability</i> .....	61
THE COMPLEXITY OF SOCIAL VULNERABILITY.....	63
<i>Politicisation of Vulnerability</i> .....	65
<i>Vulnerability, Normativity and Dehumanisation</i> .....	68
VULNERABLE PEOPLE .....	71
<i>Differential Vulnerabilities</i> .....	73

VULNERABLE PLACES.....	74
CONCLUSION.....	75
<b>Chapter 4: The Gendered Terrains .....</b>	<b>77</b>
INTRODUCTION .....	77
CONCEPTUALISING GENDER .....	77
<i>Unequal genders</i> .....	78
THEORETICAL PERSPECTIVES OF GENDER IN DEVELOPMENT.....	81
WID .....	81
WAD .....	82
GAD .....	83
WED.....	84
GENDER, ENVIRONMENTAL CHANGE AND VULNERABILITY IN RURAL AREAS .....	86
<i>Who has what?</i> .....	89
<i>Who does what?</i> .....	95
<i>Who decides what?</i> .....	96
<i>Who is affected by what changes? Who wins? Who loses?</i> .....	96
LOCATING MISSING MASCULINITIES .....	98
<i>Vulnerable men</i> .....	99
CONCLUSION .....	104
<i>A Synthesis of Key Concepts: Environmental Change, Vulnerability and Gender</i> .....	105
<b>Chapter 5: Methodology and Field Techniques.....</b>	<b>111</b>
INTRODUCTION .....	111
RESEARCH PARADIGM .....	112
<i>Examining my positionality as a black Zimbabwean woman in relation to the</i> <i>Western feminist epistemology</i> .....	115
METHODOLOGY .....	119
FIELD EXPERIENCES .....	121
<i>Ethical Issues</i> .....	122
<i>Gaining entry into the communities</i> .....	122
<i>Sampling Techniques</i> .....	124
<i>Participant demographics</i> .....	126
<i>Research Methods</i> .....	129
<i>Participatory Research Methods</i> .....	130
<i>Data Analysis</i> .....	138
REFLECTION ON THE FIELD .....	140
<i>Limitations of the study</i> .....	143
CONCLUSION.....	144
<b>Chapter 6: The Crisis State of Zimbabwe .....</b>	<b>145</b>
INTRODUCTION .....	145
ZIMBABWE: BRIEF BACKGROUND .....	145
PART ONE: ZIMBABWE'S UHURU .....	147
<i>The Home-Coming</i> .....	148
<i>ESAP: Zimbabwe's Race to the Bottom</i> .....	152
PART TWO: A SNAPSHOT OF ZIMBABWE'S INTERLOCKED CRISIS .....	162

<i>Probing into Crises: 1992-1998</i> .....	162
1998-2005.....	163
2005-2008.....	166
2009 to date.....	170
CONCLUSION.....	173
<b>Chapter 7: Case Study Areas.....</b>	<b>175</b>
INTRODUCTION.....	175
PART ONE: ORGANISATION OF RURAL AREAS.....	175
<i>Agro ecological zones</i> .....	176
PART TWO.....	179
BUHERA 'THE LAND OF THE VAHERA'.....	179
<i>Physical Environment and Socioeconomic Factors</i> .....	180
<i>Demographic Characteristics</i> .....	182
<i>Hydrology</i> .....	182
<i>Underground water sources</i> .....	183
<i>Soil, vegetation and crop features</i> .....	185
<i>Concluding the Buhera case study</i> .....	186
NYANGA 'THE BUCK HORN'.....	188
<i>Physical Environment and Socioeconomic Factors</i> .....	189
<i>Demographic Characteristics</i> .....	193
<i>Hydrology</i> .....	193
<i>Soil, vegetation and crop features</i> .....	196
<i>Concluding the Nyanga case study</i> .....	197
PART THREE.....	198
RURAL PEOPLE AND THE DEPLETION OF THE COMMONS.....	198
<i>Natural Resource Management in Zimbabwe Prior to Colonisation</i> .....	199
<i>Natural Resource Management Post-Independence</i> .....	200
<i>Marginalisation Theory of Vulnerability</i> .....	203
<b>Chapter 8: Experiences of Environmental Change and Perceptions of Causality</b>	<b>207</b>
INTRODUCTION.....	207
PART ONE.....	208
<i>Physical Change</i> .....	208
<i>Social Change</i> .....	221
<i>Summarising Part One</i> .....	240
PART TWO.....	242
<i>Causality: Chikonzero</i> .....	242
<i>The changes are inherent in nature</i> .....	243
<i>The changes are divine</i> .....	243
<i>The changes are social</i> .....	246
<i>Summarising Part Two</i> .....	250
CONCLUSION.....	251
<b>Chapter 9: Coping Mechanisms and Casualties of Environmental Change...</b>	<b>253</b>
INTRODUCTION.....	253
PART ONE.....	254
<i>Coping Strategies: Stories of survival</i> .....	254

<i>First stage of hardship</i> .....	255
<i>Second stage of hardship</i> .....	260
<i>Third stage of hardship</i> .....	266
<i>Summarising Part One</i> .....	272
PART TWO .....	275
<i>Casualties: Who does what, who has what, who decides what?</i> .....	275
<i>Summarising Part Two</i> .....	286
CONCLUSION .....	286
<b>Chapter 10: Who is affected by what changes, who gains, who loses? .....</b>	<b>287</b>
INTRODUCTION .....	287
PART ONE: VULNERABLE PLACES PRODUCE VULNERABLE PEOPLE .....	288
<i>Locational context</i> .....	289
<i>Situational context</i> .....	291
PART TWO: EXAMINING WHO IS AFFECTED BY WHAT CHANGES, WHO GAINS WHO LOSES? .....	298
<i>Critiquing the gender analysis</i> .....	301
<i>Revisiting the conceptual framework</i> .....	306
<i>Seeking to explain the overriding response, 'everyone is vulnerable'</i> .....	309
PART THREE: COPING CRISIS .....	316
<i>Poor people, entitlement failure and an outlaw culture</i> .....	317
<i>Marginalisation theory of vulnerability: omitted aid beneficiaries</i> .....	320
<i>What happened to the moral economy: Familial and kinship (un)dependence</i> .....	324
PART FOUR: THEORETICAL SIGNIFICANCE OF THE STUDY .....	326
<b>Chapter 11: Conclusion .....</b>	<b>337</b>
INTRODUCTION .....	337
<i>Does Gender matter in Crisis Environments?</i> .....	337
<i>Rethinking global environmental change (GEC) in local contexts</i> .....	339
<i>Recommendations</i> .....	340
CLOSING REMARKS .....	342
<b>Appendix A: Low risk ethics notification .....</b>	<b>343</b>
<b>Appendix B: Information sheet .....</b>	<b>344</b>
<b>Appendix C: Participant consent form .....</b>	<b>345</b>
<b>Appendix D: Research plan .....</b>	<b>346</b>
<b>References .....</b>	<b>347</b>

## List of Figures

Figure 1: Congruence model for environmental change (1) .....	47
Figure 2: The four dimensions underlying policy arrangements .....	49
Figure 3: Divided World .....	49
Figure 4: Gender Dimensions of Environmental Change.....	88
Figure 5: Gendered Impacts and Differential Vulnerability.....	88
Figure 6: Congruence model for environmental change (2) .....	97
Figure 7: Illustrating intersectionality in vulnerability .....	109
Figure 8: Summary of my philosophical framework.....	121
Figure 9: Entry into the communities .....	123
Figure 10: Age of participants in both Case Study Areas.....	126
Figure 11: Marital status of the participants in both Case Study Areas .....	126
Figure 12: Composition of absent and present men in both Case Study Areas.....	127
Figure 13: Education qualifications of participants in both Case Study Areas .	127
Figure 14: Education by gender .....	128
Figure 15: Key informant list.....	138
Figure 16: Map of Zimbabwe .....	146
Figure 17: Sketch showing Buhera's road networks.....	180
Figure 18: Location of Dorowa and Shawa Mines .....	181
Figure 19: The dissemination of Rural Area concentration in Nyanga (marked as TTL standing for Tribal Trust Lands) .....	190
Figure 20: Marginalization Theory of Vulnerability .....	204
Figure 21: Yield trends for Gunura.....	220
Figure 22: People's perceptions of causality .....	242
Figure 23: Three stages of coping strategies .....	254
Figure 24: Zimbabwe Cereal Food Aid Equivalent per 1000 MT 1990-2012 ....	293
Figure 25: Zimbabwe Maize Yield (MT) 1990- 2013 .....	294
Figure 26: de Waal's Crisis Model.....	295
Figure 27: Congruence model for environmental change (3) .....	307
Figure 28: Environmental changes at work .....	327
Figure 29: Illustrating intersectionality in vulnerability (2) .....	330
Figure 30: Summary of the conceptual framework.....	333
Figure 31: reillustrating the conceptual framework.....	334

## List of Tables

Table 1: Definitions of Transformations across Disciplines .....	25
Table 2: Examples of social and biophysical processes .....	33
Table 3: Characteristics of Qualitative Research .....	120
Table 4: Massey University Ethical Considerations .....	122
Table 5: Sampling grid for my study .....	125
Table 6: Number of semi structured interviews.....	129
Table 7: Structure of focus group discussions .....	134
Table 8: number of visual participatory research methods (FGD 1) .....	134
Table 9: number of visual participatory research methods (FGD 2) .....	137
Table 10: Phases of Thematic Analysis .....	139
Table 11: Coding pattern .....	140
Table 12: Distribution Patterns of agro-ecological regions in rural Zimbabwe	177
Table 13: The Distribution of Agro Ecological Zones in Buhera (Areas ha) .....	177
Table 14: Distribution of Agro Ecological Zones in Nyanga by Settlement Pattern (Areas ha) .....	178
Table 15: Dams in Manicaland Province.....	183
Table 16: Water points in Buhera in relation to population .....	183
Table 17: Distribution of water points by ward in Nyanga North .....	195
Table 18: Rainfall and Temperature Trends .....	212
Table 19: Comprehensive list of coping mechanisms used by rural men and women .....	273
Table 20: Participant contributions (individual interviews) .....	275
Table 21: Ownership and control framework.....	279
Table 22: Activity framework.....	281
Table 23: Times/role framework .....	282
Table 24: Maize Production Trends between Communal and Commercial Farms 1969-2001 .....	292
Table 25: Overall experience of environmental change.....	331

## 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