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'GREEN FAMINE' IN ETHIOPIA

Understanding the Causes of Increasing Vulnerability to
Food Insecurity and Policy Responses in the Southern
Ethiopian Highlands

Mulugeta Lolamo Handino

Doctor of Philosophy in Development Studies

UNIVERSITY OF SUSSEX

May 2014

STATEMENT OF DECLARATION

I hereby declare that this thesis has not been and will not be, submitted in whole or in part to another University for the award of any other degree.

Signature:.....

UNIVERSITY OF SUSSEX

MULUGETA LOLAMO HANDINO

DOCTOR OF PHILOSOPHY

'GREEN FAMINE' IN ETHIOPIA

**UNDERSTANDING THE CAUSES OF INCREASING VULNERABILITY TO FOOD INSECURITY AND
POLICY RESPONSES IN THE SOUTHERN ETHIOPIAN HIGHLANDS**

SUMMARY

This thesis examines the underlying causes of food insecurity, famine in general and *green famine* in particular in the enset-dominant livelihood zones of Kambata land in southern Ethiopia, which are historically considered more resilient and less vulnerable to food insecurity and famine than other parts of Ethiopia. Given Ethiopia's long-standing history of food insecurity and famines, the discourse of food insecurity and famine is dominated by natural and demographic factors as the main causes. In order to unpack the multi-layered underlying causes of food insecurity in general and *green famine* in particular, the thesis adopts Sen's analytical framework of 'entitlement to food'. Using multi-site qualitative research techniques, this thesis captures the perceptions of different actors at different levels about the causes of *green famine*, identifies the sources of livelihood vulnerability and the types of livelihood strategies undertaken by households in the study area. By systematically capturing and analysing these different aspects, the study concludes that the causes of *green famine* extend beyond the dominant narratives of drought and population growth, and that these factors alone cannot fully explain famine occurrence. *Green famine* is caused by a web of complex and intertwined policy-related, political, natural, socio-economic and demographic factors that have long been present in the study area.

The thesis further investigates how the contemporary understanding and classification of famine is dominated by anthropometric and mortality outcomes ('objective indicators') and thresholds set by outsiders and how 'subjective indicators' such as the perceptions, knowledge, experience and coping strategies of famine victims are undervalued and given less weight by 'famine scales'. By incorporating 'subjective indicators' of famine, this thesis challenges conventional famine conceptualisation and measurement and recommends that these indicators be given equal treatment and weight to 'objective indicators' in famine classification.

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complex livelihood system, food insecurity, *green famine* and policy responses in southern Ethiopia. I am also grateful to academics at University of Hawassa College of Agriculture, particularly Dr Tewodros Tefera, Dr Ayele Tessema and Dr Berhanu Nega, for their time and for sharing their insights and resources with me. My thanks also go to the academics at Addis Ababa University and Forum For Social Studies for their support and comments. Special thanks goes to Dr Degefa Tolossa, Dessalegn Rahmato and Alebachew Kemiso. I wish to acknowledge the contribution of different researchers and experts at various institutions in Ethiopia and abroad including Dr Wolde-Selassie Abbute (FAO Sudan), Yohannes Desta (WFP), Dr Kassaye Hadgu (UNOCHA), Dr Judith Sandford (London), Misrak Tamire and Desta Deboch. My special thanks go to Zelalem Desta, my fieldwork assistant who has been instrumental in mobilising communities, travelling long and difficult journeys and being available whenever I needed.

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ACRONYMS

AAU	Addis Ababa University
ACF	Action Contre la Faim
ADLI	Agricultural Development-Led Industrialisation
AESP	Agricultural Extension Service Programmes
AISCO	Agricultural Input Supply Corporation
AWD	Acute Watery Diarrhoea
BoFED	Bureau of Finance and Economic Development
BoARD	Bureau of Agriculture and Rural Development
CCI	Complementary Community Investment
CDC	Centre for Disease Control
CFSTF	Community Food Security Task Force
CMR	Crude Mortality Rate
CSI	Coping Strategy Index
CSA	Central Statistical Agency of Ethiopia
CU5MR	Crude Under Five-Mortality Rate
DA	Development Agent
DAP	Di Ammonium Phosphate
DRMFSS	Disaster Risk Management and Food Security Sector
DPPC/A	Disaster Prevention and Preparedness Commission/Agency
EEC	Ethiopian Economics Association
EEPRI	Ethiopian Economic Policy Research Institute
ENCU	Emergency Nutrition Coordination Unit (Ethiopia)
EPRDF	Ethiopian Peoples' Revolutionary Democratic Front
EMA	Ethiopian Metrological Agency
FAO	Food and Agriculture Organization of the United Nations
FDRE	Federal Democratic Republic of Ethiopia
FEWS NET	Famine Early Warning Systems Network
FFSS	Federal Food Security Strategy
FFYP	First Five Years Plan
FGD	Focus group discussion
FSNAU	Food Security and Nutrition Analysis Unit-Somalia (FAO)
FSS	Forum for Social Studies

GAM	Global Acute Malnutrition
HABP	Household Asset Building Program
HVFB	High Value Food Basket
IFPRI	International Food Policy Research Institute
IDL	International Development Consultants group
IDR	Institute of Development Research at Addis Ababa University
IDS	Institute of Development Studies at University of Sussex
IPC	Integrated Food Security Phase Classification
JRC-EC	Joint Research Centre of the European Commission
Kcal	Kilo calories
KCE	Kambata Cereal and Enset livelihood zone
KFSTF	Kebele Food Security Task Force
K-T	Kambata-Tembaro administrative zone
KII	Key Informant Interview
LIU	Livelihoods Integration Unit
MoARD	Ministry of Agriculture and Rural Development
MSF	Médecins Sans Frontières (Doctors Without Borders)
NFSS	National Food Security Strategy
NGO	Non-Governmental Organisation
ODI	Overseas Development Institute
OFSP	Other Food Security Programmes
OTP	Outpatient Therapeutic Feeding Programme
PADETES	Participatory, Demonstration and Training Extension System
PLW	Pregnant and Lactating Women
PRA	Participatory rural appraisal
PSNP	Productive Safety Net Programme
RENCU	Regional Emergency Nutrition Coordination Unit
RNIS	Refuge Nutrition Information System of the United Nations
RUTF	Ready to Use Therapeutic Food
SAM	Severe Acute Malnutrition
SNNPR	Southern Nations, Nationalities and Peoples Region
SFYP	Second Five Years Plan (SFYP)
SLF	Sustainable Livelihood Framework
TFC	Therapeutic Feeding Centre
TFYP	Third Five Years Plan (TFYP)

TSFP	Targeted Supplementary Feeding Programs
UN	United Nations
UNICEF	United Nations Children’s Fund
UNOCHA	United Nations Office for the Coordination of Humanitarian Affairs
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
WFP	World Food Program of the United Nations
WHO	World Health Organization
WOARD	Woreda Office of Agriculture and Rural Development
WVE	World Vision Ethiopia

Glossary of Amharic and Kambatissa terms

<i>Ato</i>	Mr
<i>Birr</i>	Ethiopian currency
<i>Bulla</i>	Enset based food. It is the best quality food and served for special occasions. It can be prepared as bread, porridge and dumpling
<i>Degga</i>	Higher altitude/highland agro-climate
<i>Derg</i>	Military/socialist regime ruled Ethiopia from 1974-1991
<i>Equib</i>	Informal local savings institutions
EPRDF	The ruling political party since 1991 and a coalition that consists of different regional political parties.
<i>Fuga</i>	One of the Kambata clan that is considered as a lower caste group and pursue specialised livelihood activities mainly pottery. But, they also involve in tannery, blacksmithing and traditional healing
<i>Gillalo/belg</i>	The short rains from January/February-April in the study area
<i>Gorro (u)</i>	Actual hunger due to food shortages. It is not a seasonal hunger. It can last longer
<i>Gorri doola</i>	Years/periods of hunger and famine
<i>Hammicho(amicho)</i>	The underground corm of the enset tree, often consumed boiled
<i>Kebele (Singular)</i>	The lowest administrative unit, below the <i>Woreda</i> /district
<i>Kabbe/koda</i>	Shared animal rearing, resources transfer and crop production arrangement
<i>Kocho/wassa</i>	Processed and fermented enset food. It can be prepared and consumed as bread
<i>Massaala/ Meskel</i>	One of the most important traditional festivals celebrated in Kambata land. It falls on September 27/28 and celebration goes on for more than a week. Neighbors pool money together and slaughter a bull and share the meat amongst them. Different types of traditional meals and drinks are prepared and shared with friends and families

<i>Ooja/mehar</i>	The long rains from May-September in the study area
<i>Qolla</i>	Relatively hot and warm agro climate - lowlands
<i>Rehuuta</i>	Famine related death, a final stage of famine
<i>Shanno gorru</i>	Famine that kills
<i>Shoomma</i>	A momentary hunger, a feeling for food
<i>Seera</i>	Set of unwritten rules, code of conduct, rituals, practices that all members of Kambata ethnic groups practice, respect and adhere in their every day life
<i>Tukul</i>	Hamlet
<i>Udufunne/qa'ane</i>	Extreme shortage of food and lack of support from friends and patrons. Widespread destitution. It is a famine
<i>Woreda (singular)</i>	A district, equivalent to a county
<i>Wessho/wesse</i>	Enset crop/false banana
<i>Woina-degaa</i>	Mid-altitude land agro-climate
<i>Yewulle</i>	Symptoms of swelling on legs and bellies during famine (nutritional Oedema) caused do to lack of protein
<i>Yewulsanno gorru</i>	Famine that causes swelling

CHAPTER 1

Introduction and background to the study

Ethiopia's latest [2003] drought-driven famine seems familiar at first: infants with pot-bellies suckling the emaciated breasts of mothers too tired to wave away flies crawling across their lips. Then you notice that the countryside is lush and green, damp from rain, with cattle and goats nibbling the foliage. Take away the fields of banana and pineapple and it could be the Lake District (*The Guardian*, May 2003).

1.1 Research context

Ethiopia has a long-standing record of food insecurity, hunger and famines of different scales and magnitudes (Degefa 2005: 5; Lautze and Maxwell 2007: 223). Historical evidence and literature on famine studies indicates that famines in Ethiopia occurred 'as early as the ninth century' (Mesfin 1984: 31). Since 2011 Ethiopia has been among the top recipients of United States government food assistance in the world (Feed the Future 2011: 9). Recent figures indicate that in 2012, an estimated 7.5 million chronically food-insecure people are being supported through a safety net programme (Ellis and White 2012: 4). Even today in 2013, chronic food insecurity and localised famines have remained a serious challenge and inflict severe damage to the lives and livelihoods of millions of people in Ethiopia.

The major famines that struck Ethiopia and received wider international attention were the Wollo famine of 1973–74 and the most publicised famine of 1984–85 (Sen 1981: 87; Mesfin 1984; Dessalegn 1991). The 1984 famine is considered to be the second most severe famine in the modern history of Ethiopia. Kumar (1990: 203) cited in Devereux (2000b: 33) claimed that 'the estimate of one million deaths would constitute an absolute minimum for the entire famine period and the actual figure could turn out to be more than 1½ million'. However, Africa Watch (1991: 172) and Dessalegn (1991: 108) estimated 590,000 and 400,000 deaths respectively. Further, Dessalegn suggested, out of 400,000 deaths, an estimated 100,000 occurred in Wollo province, one of the hardest-hit areas in the country.

Historically, the cereal-dominated livelihood zones/areas,¹ particularly the northern and central highlands of Wollo and Tigray, have suffered from persistent food crises and famines over time (Mesfin 1984; Dessalegn 1996; Lautze and Maxwell 2007: 223). It is not a surprise that this part of the country has frequently been affected by these incidences in view of the region's limited natural resources; with relatively lower rainfall distribution and a single season (*mehar*²) production system. Given their historical relationship with famine and hunger and their political significance, the central and northern highlands of Ethiopia have been a centre of attention for famine researchers, policy-makers, humanitarian actors and the government (Degefa 2005: 21; Vadala 2008: 14; Lautze *et al.* 2009: 13). The observation by Lautze and Maxwell (2007: 224) neatly captures the existing region-biased famine management strategies, responses, and the politics behind them: 'significant resources were devoted to improved famine early warning systems, focused on the north-eastern highland agriculture areas because vulnerability was believed to be the greatest in these areas and/or because it was the political heartland of the EPRDF'.

Yet, more recent famines, particularly the famines of 1999–2000 and 2002–03, have received less local and international media attention and response than their predecessors. The Government of Ethiopia has declined to declare them as a famine despite various studies that indicated the food crises had reached famine level (see Salama *et al.* 2001: 568; Hammond and Maxwell 2002: 263; Kaiser 2003; Howe and Devereux 2004; Vadala 2004, 2008).

Most of the southern Ethiopian highlands, known not only for their diverse ethnic composition, but also for their agro-ecological and livelihood diversification, remained relatively hunger and famine resilient. Even during the 1974 famine that affected most parts of the country, 'the enset growing highlands of Kambata, Sidama and Guraghe did not face the famine' (Dessalegn 1996: 92, 2007: 13). However, since the late 1990s, these formerly resilient

¹ The Food Economy Group (FEG) 2010: lii) defines a livelihood zone as "areas within which households (on average) share similar livelihood patterns, i.e. they have access to the same set of food and cash income sources and to the same markets". For more, see DRMFS 2010 and online: http://www.feg-consulting.com/what/services/early_warning/livelihood-integration-unit-liu.

² Most of the southern highlands and lowlands of Ethiopia experience bi-modal rainfall patterns. *Belg* is a short rainy season whereas *mehar* is the longer/main rainy season.

livelihood systems have become vulnerable to various shocks resulting from intertwined social, economic, political and policy-related factors. The recent famines, particularly the post-millennium famines, have spread out to larger areas of Ethiopia, including the southern highlands and lowlands (Hammond and Maxwell 2002; Lautze *et al.* 2003; Bevan and Pankhurst 2004; Degefa 2005; Lautze and Maxwell 2007). Further, currently the majority of the enset-dominant livelihood zones of southern Ethiopia are becoming increasingly synonymous with the term 'hotspot' used by aid agencies and the government due to increasing rates of acute and chronic malnutrition after a single season of rain failure or other shocks. As a result of these shocks, periodic and persistent food crises, hunger and famine have regularly occurred in these areas (Rami 2003; Anderson and Choularton 2004).

Many scholars and famine experts, including Mesfin (1984), R. Pankhurst (1985), Dessalegn (1991), Sen (1991), Webb and Von Braun (1994), Devereux, Sharp and Amare (2003) have researched Ethiopian famine paying less attention to the southern Ethiopian highlands and lowlands, the pastoral areas of the Borana in Oromia region and Somali regions respectively. So far, only a few researches (see, e.g. Walker 1990; Bevan and Pankhurst 2004; Alemayehu 2001; Ayele 2008) have been conducted in the southern Ethiopian highlands and lowlands looking at the causes of recurrent famines. While most attention, resources and responses focus on the traditionally famine-prone, but politically important, regions of northern Ethiopia, the food crisis is deepening and causing more damage to livelihoods in the south. While policy and research focus on the north, the south risks being forgotten and could potentially become the next epicentre of a famine (Alemayehu 2001: 10). The catch phrase '*green famine*' in loose terms refers to the occurrence and spread of food crises and consequent famines in the southern parts of Ethiopia, particularly in enset-dominant livelihood zones. The common explanation of the cause of hunger and famine in general, and of *green famine* in particular, in Ethiopia is climate variation manifested through delay or failure of rains, often described as drought, population pressure and resultant land shortage. However, a closer look and deeper analysis indicate that the underlying causes of *green famine* go beyond a simple failure of rains and drought and land shortage.

Why is there food insecurity and famine in the southern Ethiopia highlands when everything is green? Is this a new occurrence or a chronic accumulation of underlying causes? Is it a new occurrence or a manifestation of deeper underlying causes? Is it a climatic and seasonality phenomenon? Is it a failure of entitlements? Is there sufficient understanding of the underlying causes among the policy-makers, development scholars and other stakeholders to

define appropriate and relevant policy responses? The quest for answers to this puzzle and paradox continues while *green famine* continues to evolve. This situation necessitates closer examination to establish the causes and the policy responses of the government and policy-makers.

The magnitude and the intensity of *green famine* are neither documented nor recorded by development and policy researchers in Ethiopia (Alemayehu 2001: 10). There is a clear lacuna in famine studies, particularly on the immediate and underlying causes and the scale of *green famine*. Further, the wider impacts of *green famine* on lives and livelihoods of people has not been assessed and documented. Thus, this research aims at filling these gaps and contributing to a wider famine theory and policy discourses.

1.2 Research objectives

The main research objective is to examine the underlying causes of food insecurity in general and of the *green famine* in particular in the southern Ethiopian highlands, specifically in the Kambata-Tembaro (K-T) zone.³ The dissertation also captures the perceptions of different actors, the sources and trends in vulnerability of rural livelihoods, the local dynamics of *green famine* and how households are coping with the recurrent situation in K-T zone. Furthermore, it investigates the role and contribution of government food security policies, strategies and programmes in addressing and reducing household vulnerability to food insecurity, and *green famine* in southern Ethiopia. It specifically reviews three selected food security programmes – the Productive Safety Net Programme (PSNP), the Other Food Security Programme (OFSP) and the Agricultural Extension Service Programme (AESP) – that have been implemented in three different time spans over the course of the last two decades. By analysing the causes of *green famine* and identifying its characteristics, this research will contribute towards the debates and theories of famine in a wider context. Further, it reviews and critiques how scientific and standardised anthropometric and mortality measurements of famine (as ‘objective’ indicators) have become dominant parameters in defining and categorising famine. By proposing an alternative famine scale, the study aims to contribute to the knowledge of famine measurement and classification. Finally, it explores how the occurrence of *green famine* challenges the conventional discourse and understanding of the causes of famine in Ethiopia.

³ A zone is an administrative unit in Ethiopia above district (*woreda*) and consists of several districts.

1.3 Research questions

The research attempts to tackle the following questions in order to help understand the causality of *green famine* in southern Ethiopia and support the development of appropriate policy responses for the future.

1. What are the explanations for hunger and famine amidst green agro-ecology in the southern Ethiopian highlands?

- What are the underlying causes for the *green famine* in southern Ethiopia?
- What other factors (natural, socio-economic and political) contribute to the occurrence of *green famine*?
- What are the sources of livelihood vulnerability?
- Which livelihood groups are the most vulnerable and face persistent food insecurity in the study area?
- How does the level of affectedness vary among the different groups/livelihood systems?

2. How does the occurrence of *green famine* force us to rethink the conventional understanding of causes of famine and debates in Ethiopia?

- What are the characteristics of *green famine*?
- What theoretical similarities exist between the causes of *green famine* and other famines that occurred in Ethiopia?
- How do *green famines* in Ethiopia force us to reconsider definitions and classification scales for famines?

3. What is the role and contribution of implemented food security policy responses in reducing vulnerability to *green famine* and improving the well-being of the people in Kambata-Tembaro (K-T) zone?

- How effective are the ongoing food security programmes currently implemented in the study area?
- What lessons can be learned for policy responses in the future?
- What are the institutional arrangements of these policies at the local level and how do these affect the implementation of the programmes?

1.4 Thesis structure

This thesis is organised as follows.

Chapter 2 outlines the methodology and empirical data collection techniques employed and sources of data that underpin this research. It introduces the study area and provides general background on some key features. Further, it presents the fieldwork process, ethical considerations, personal reflections and positionality.

Chapter 3 presents the literature review. It discusses a range of concepts and discourses pertinent to this research including definitions of famine, famine theory and famine scales and measurements and coping strategies. It also explains the reasons for selection of Sen's analytical framework of 'entitlement to food' to investigate the causes of food insecurity and *green famine*.

Chapter 4 introduces the central theme of this thesis – *green famine*. It also presents the historical background of *green famine* in Ethiopian famine history, its progression and current status and how different actors perceive it. It also investigates the underlying causes and trigger factors of *green famine*, and its effect on the lives, livelihoods and well-being of people. It examines why *green famine* is not categorised and classified as a famine by the Government of Ethiopia and other actors, despite being defined as a famine by victims of famine.

Chapter 5 explores different livelihood types evident in the study area and investigates the types of risks and vulnerability factors that are affecting different livelihoods and their trends over time. It also investigates which livelihoods are becoming more or less vulnerable to different shocks and are susceptible to insecurity and *green famine*.

Chapter 6 investigates the theoretical and causal similarities and differences between the 1984 famine and the *green famine* of 2007–08 in southern Ethiopia. Further, it discusses the current discourse around famine mortality and anthropometric outcomes in famine definitions and classification and how famine victims' perceptions and understandings and locally defined coping strategies are overlooked in famine classification. By proposing an alternative famine scale, this chapter determines whether *green famine* can be classified as a famine or not.

Chapter 7 critically examines how the Ethiopian government's food security policies and interventions are playing a role in addressing and reducing household livelihood vulnerability to food insecurity and *green famine* in the study area. After analysing their impact, it provides recommendations for future policy formulations in the area to address the issue of growing livelihood vulnerability to food insecurity and *green famine*.

Chapter 8 summarises the findings of the thesis. It looks back at the research questions raised at the beginning of the thesis and sees how the empirical evidence presented has answered the questions. It also presents the contribution of the study to knowledge and theories of famine and famine measurements and concludes by briefly highlighting opportunities for future research.

A brief guide to how Ethiopian words and names are used in the thesis

In order to avoid confusion for readers who are not familiar with Ethiopian names and words, this thesis has adopted a 'guide' developed by Bahru and Pausewang (2002: 6). See Box 1.1.

Box 1.1: Remarks on Ethiopian words and names

There is 'no scientific system with exact rules' for representation of Amharic sounds in the Latin alphabet but, to assist the reader, consistency of transliteration has been imposed. The Glossary above provides a list of terms in the national language, Amharic, and Kambatissa, a language of the Kambata ethnic group. To avoid confusing the reader with the Amharic plurals of words transliterated words are shown in the form -s (*woredas*, *kebeles*). There is no standardised method for spelling names of places in Ethiopia and it is common to find different spellings for the same place – for instance, Kembata, Kembatta or Kambata. Local spelling has been maintained in quotations but elsewhere names have been standardised. Unlike conventional name rules, in Ethiopia, 'the second name does not denote a family name, but the first name of the father; often a third name is added, which is the first name of the grandfather'. It is also common to see some names consisting of two words, for example, Wolde-Selassie, Gebre-Selassie. In such cases, the two words do not indicate two different names. Following Ethiopian practice and the logic of names, Ethiopian names are not inverted in the references in this thesis. Ethiopians thus appear under their first names in text citations and in the list of references.

CHAPTER 2

Methodological underpinnings and introduction to the study area

2.1 Introduction

This chapter presents the research methods used to collect empirical data during the field study. Further, it presents the fieldwork process, ethical considerations, reflections and positionality. Finally, it introduces the study area and provides general background information.

2.2 Research methodology

This research used multi-site qualitative data collection methods (Herriott and Firestone 1993) to capture a wide spectrum of perceptions about the causes of *green famine* at different administrative⁴ and institutional levels. A qualitative approach was chosen because it provides a platform for participants to present their ‘perceptions, experiences and knowledge’ about issues surrounding *green famine* and factors affecting their livelihoods over time (Glesne 1999). In addition, the ‘multi-method nature of qualitative research allows for triangulation of different perspectives and helps to gain an in-depth understanding’ of *green famine*, and supports the design of a policy response to prevent its occurrence in the future (Denzin and Lincoln 2013: 9). Multiple methods were used to collect primary data including semi-structured interviews with key informants, participatory methods, focus group discussions and case studies (life history interviews). In addition, relevant ‘grey literature’, academic publications and government policy documents were reviewed (see Table 2.1). *Woreda*-level survey was undertaken in collaboration with the *woreda*- and *kebele*-level actors in one of the study *woredas* in order to capture the trend of prevailing migration of people to Republic of South Africa, Middle East and other countries (see Chapter 5).⁵

⁴ After 1991, Ethiopia adopted a federal system ‘divided along ethnic lines’. According to this structure the country was divided into nine regional states and two chartered city-states (Addis Ababa and Dire-Dawa (see Figure 2.1). The administrative structure and unit is cascaded from the federal to region, zone, *woreda* and *kebele* (see Kidane (2001: 20) for more on Ethiopia’s ethnic-based federalism).

⁵ *Woreda* (plural used in this thesis *woredas*): Amharic name for district. *Kebele* (plural used in this thesis *kebeles*): the lowest administrative unit, below the *woreda*.

Further, during my stay in the community, I closely observed the overall situation in the area to understand what changes (livelihood, social, political, economic etc.) have occurred during the time I had been away. I attended different rituals and ceremonies (weddings, funerals, festivals), visited market centres and had many *ad hoc* discussions with people from different walks of life. Thus, using a combination of different qualitative data collection methods that present perspectives of different actors provided rigour and richness and helped to develop a better understanding of the phenomenon of *green famine*. Table 2.1 summarises the types of research methods, sources of information and number of people involved in the research process.

Table 2.1: Summary of information sources, research methods and number of respondents

Sources of information	Research methods				Total number of respondents participating
	SSI	FGD	PRA	Case studies	
Community elders – men		3	3		50
Community elders – women		3	3		50
Resilient and non-affected households		3	3		50
Vulnerable and affected households		3	3		60
Households with various livelihoods				✓	26
Development agents	✓				11
District officials and food security experts	✓				6
Zone level food security experts	✓				2
Regional bureaucrats and technical experts	✓				4
Regional agricultural research centre	✓				2
Academics from Hawassa and Addis Ababa University and Forum for Social Studies (FSS)	✓				6
Federal bureaucrats and technical experts	✓				4
UN agencies (WFP, FAO, UNOCHA)	✓				3
Famine experts and senior consultants	✓				3
Total					277

In total, I conducted 41 semi-structured interviews, in a mix of 12 participatory rural appraisal (PRA) exercises and 12 focus group discussions (FGDs) and 26 household case studies (oral histories). Respondents for case studies were selected from among the participants of the FGDs and PRAs, when it was deemed that they had interesting life stories, relevant to the central research questions.

2.3 Study area

The study was conducted in Kambata-Tembaro (K-T) zone in Southern Nations, Nationalities and Peoples' Region (SNNPR) of Ethiopia. The SNNPR is one of the nine regional states of the Federal Republic of Ethiopia. The region is home to more than 56 ethnic groups with distinctive cultures, languages, histories and livelihoods. It borders with Kenya in the south, South Sudan in the south-west, Gambela region in the north-west and Oromia region in the north-west, north and east (DPPC 2005a) (see Figure 2.1). In July 2012, the region had a total area of 105,887 sq. km and a total population of 17.4 million people, which is about 20 per cent of the national area and 18 per cent of the country's population (CSA 2012).

The Kambata-Tembaro (K-T) administrative zone⁶ is located in the north-eastern part of SNNPR (DPPC 2005b: 1). It comprises seven *woredas*, namely Kadida-Gamela, Damboya, Angecha, Doyo-Gena, Kacha-Bira, Hadero-Tunto and Tembaro with a total area of 1,356 sq. km (see Figure 2.1). According to projected data based on the 2007 national census, the K-T zone total population in 2012 was 797,900 people, of which 394,758 were male and 403,142 female. The zone is one of the most densely populated areas in the country and region with a crude population density of 588.5 people per sq. km, considerably higher than the estimated regional average of 164 (CSA 2012). According to the livelihoods classification there are 175 different livelihood zones in Ethiopia and 40 in SNNPR (DRMFSS 2010). K-T zone covers four main livelihood zones: Badewacho-Alaba maize, Hadiya-Kambata cereal and enset (KCE), Hadero-ginger and Kedida-Badewacho coffee livelihood zones. The majority of the *woredas* including Angecha, Doyo-Gena and Damboya and parts of Kacha-Bira, Hadero-Tunto, and Kadida-Gamela are categorised as 'Hadiya-Kambata cereal and enset livelihood zone' (DPPC 2005b: 1).

K-T zone was selected on the basis of prevailing food crises and as one of the areas repeatedly affected by *green famine*. The study was conducted in three *woredas* in K-T zone: Kadida-Gamela, Kacha-Bira and Doyo-Gena (see Figure 2.1).

⁶ Here 'zone' is used to indicate the administrative structure in Ethiopia.

Figure 2.1: Map of Ethiopia showing the area of study



Source: Author's map.

2.4 Sampling process of *woredas* and *kebeles*

As noted above, the study was undertaken in three *woredas* in K-T zone. The *woredas* were purposely selected but were stratified and sampled based on similar characteristics and attributes related to types of livelihood and their strategies, risks and vulnerability factors, and previous history of food crises occurrences. Most parts of the three selected *woredas* fall into the Hadiya-Kambata cereal-enset livelihood zone and the majority of households depend on enset as a major source of food. These three *woredas* comprise three major and distinct agro-ecological zones that represent the study area, namely *degga* (highland), *woina-degaa* (mid-altitude) and *qolla* (lowlands).

To make the final selection of the *woredas* the following process was undertaken. Out of a total of seven *woredas* under consideration, two (Tembaro and Hadero-Tunto) were not included in the sampling because they have different agro-ecological characteristics and fall within the Hadero-Ginger livelihood zone where ginger and coffee are the main sources of income (DPPC 2005b: 1). Following this review the number of *woredas* was narrowed down to five: Kacha-Bira, Kadida-Gamela, Damboya, Angecha and Doyo-Gena; and the indicators were taken into consideration for the sampling process and selection included:

- (1) The history of emergency food distributions over the last two decades.
- (2) The size of estimated total population affected by *green famine* in 2003 and 2007–08 based on recorded data from the K-T zone early warning and food security coordination office (indicated by emergency food ration distribution, number of malnourished children admitted to the emergency feeding centres etc.).
- (3) The estimated population that returned to respective *woredas* after the introduction of ethnic-based regionalisation.
- (4) Trends of local and international migration.
- (5) Availability of historical data/information and previous studies on the livelihood and food security situations.

In addition to these criteria, the selection of the *woredas* was also influenced by the familiarity of the researcher with the livelihood zone, and personal and professional attachments developed over years. I was born, raised and worked in Kacha-Bira and Kadida-Gamela. Additionally, as noted earlier, the study sets out to identify the underlying causes of increased vulnerability to food insecurity and *green famine* in the highland areas of southern Ethiopia, so the lowland *woredas* were purposely not chosen.

The data for the above five indicators was obtained from K-T zone bureau of Agriculture and Rural Development, Health and other relevant offices. For instance, available data indicated that during the 2007–08 *green famine* period the percentage of the population supported through the PSNP and emergency relief was 45 per cent in Kadida-Gamela, 44 per cent in Kacha-Bira and 30 per cent in Doyo-Gena districts (see Table 5.6). Similarly, quantitative evidence indicated that significantly large numbers of population have returned to Kadida-Gamela district following the ethnic-based decentralisation as compared to other *woredas* (see Chapter 4). Discussions with key informants at K-T zone and *woreda* levels indicated that Kacha-Bira *woreda* was hardest hit by the 2007–08 *green famine*, compared to Kadida-Gamela and Doyo-Gena *woredas*. Further, discussion with *woreda*-level actors in Kadida-Gamela indicated that the eucalyptus tree has becoming the most important cash crop and thus its production is on an increasing trend. Doyo-Gena district is located next to Hosanna town where different actors are involved in facilitating the international migration process and as a result many people from the surrounding *woredas* are using this opportunity to invest in this livelihood strategy. Although all three *woredas* consist of the three distinct agro-ecological zones (highland, mid and lowland), the majority of the *kebeles* in Doyo-Gena *woreda* fall under the highland zone. As a result, it was assumed that the availability of enset is higher and subsequently a better food security condition should be present here than in Kacha-Bira and Kadida-Gamela. Once the above indicators were explicitly observed and contrasted across the five *woredas*, the three *woredas* were selected for further investigation. The selection was undertaken in a participatory approach involving food and livelihood experts who had a deeper understanding of the study area. Table 2.2 summarises some key features of the three districts and compares them to regional and national indicators.

Table 2.2: Some key features of the study area compared to regional and national indicators

Key features	<i>Woredas</i>			SNNP Region	National
	Kacha-Bira	Kadida-Gamela	Doyo-Gena		
Total area (sq. km)	190	189	131	105,887	1,104,300
Total population (2012)	117,282	103,028	91,186	17.4 million	8.4 million
Population density (people per sq. km) (2012)	616	584	698	164	76
Average land per household (in ha) in 2012	0.25	0.33	0.50	0.75	1.00
Staple foods	Enset, sweet potato, Irish potato, taro, maize, wheat	Enset, sweet potato, maize Irish potato, haricot beans	Enset, wheat, potato, barley, beans and pea		
Sources of cash	Coffee, eucalyptus, ginger and livestock sales, khat	Coffee, <i>teff</i> , wheat, livestock sales and khat	Wheat, enset products and livestock sales		
Ethnic composition	Kambata	Kambata	Kambata		
Total PSNP beneficiaries (2008)	18,498	15,564	4,671	1,298,981	7.36 million

Source: DPPC 2005b; CSA 2012; Bevan and Pankhurst 1996.

Similar indicators were considered and sampling techniques applied for the selection of the *kebeles* in all the three study *woredas*. Each *woreda* consists of an average of 14 rural *kebeles* and two *kebeles* per *woreda* were selected and sampled based on the available data on different indicators of food security including:

- (1) The number of PSNP beneficiaries.
- (2) Geographic location and representativeness of the *woreda's* major livelihood groups.
- (3) Number of population targeted and receiving the agricultural extension packages and history of emergency relief distributions over the last two decades.
- (4) Level of affectedness by *green famine* in 2007–08 (indicated by number of children and adults admitted to the emergency feeding centres, admission trends of children to therapeutic feeding centres during and after 2007–08).
- (5) International migration pattern and assumed remittance flow.

Quantitative evidence and other relevant information were collected from different sector offices at the *woreda* level such as the *woreda* administration council, agriculture and rural development and health offices and reports from international non-governmental agencies operating in the area. After all the *kebeles* had been compared and contrasted, two *kebeles* considered most representatives of the main livelihood zone of the *woreda* and K-T zone were selected for further investigation. As noted earlier, the sampling of community-level research participants was undertaken by a participatory rural appraisal (PRA) approach that ensured greater engagement of participants in the research process. With support and collaboration from development agents, the *kebele* administration, *kebele* and community food security taskforce members, community representatives were called for a meeting at the central location of the *Kebele*. The representatives were selected from different livelihood groups, socio-economic status, education backgrounds, and resettlement and migration history.

2.5 Wealth categorisation and identification of households

Wealth ranking is an important method of enquiry that helps to identify who is better off or poor and vulnerable to food insecurity and to define critical factors contributing to any change in a given livelihood context (Chamber 1997; Degefa 2005: 70). In each of the selected *kebeles*, the community representatives consisting of both men and women groups, representing diverse livelihoods groups were asked separately to identify local indicators of wealth. Different locally applied wealth indicators were discussed and identified by respective groups across all the study *kebeles*. These wealth indicators included: household land size; livestock size, composition and ownership (numbers, types of breeds, i.e. local and exotic/hybrid breeds, draught oxen and owned, share-raised etc.); enset coverage (both age of enset and total size); type of housing (well maintained, grass thatched or corrugated iron roofed); number and availability of eucalyptus and coffee trees; main livelihood strategies (seasonal labourers, potters, tanners, blacksmiths, mixed agriculturalists); migration history (permanent residents, displaced and returnee or household whose member or members migrated to South Africa or other countries); socially, economically and culturally marginalised groups (castes, orphan and women-headed households); PSNP recipients, and agricultural extension package adoption and recognition status (model farmer, champion farmer or not participating or dropped out from the extension package due to various reasons); and visible socio-economic indicators (large number of dependents, extravagant, poor saving culture). Once these wealth indicators were identified and agreed upon, the participants were asked to divide their village community into different wealth categories (See Table 2.3).

Table 2.3: Wealth categories and food security indicators in the study area

Wealth group	Local name	Indicators and estimates	Food security/ livelihood status
Rich/ (better-off)	<i>Duubala/qaba xxamu</i>	Livestock size (3 milking cows, pair of oxen, donkey) At least 1 exotic breed cow Land size (up 8 <i>timad</i>), 1 or more <i>timad</i> rented in 1–2 <i>timad</i> enset in his backyard (more mature ones) Coffee and eucalyptus (up to 1 <i>timad</i>) Educated family members. Having additional house in nearby town. Has a family member in South Africa or elsewhere. Modern residence (corrugated roofed)	Resilient and food secure
Middle	<i>Mererranchu</i>	1-2 milking cows, an ox, sheep/goat, chicken Up 4 <i>timad</i> land, Up 250 trees of enset, some coffee and eucalyptus trees Able to send his children to school and higher education Better housing condition	Food secure, but struggle when face shocks
Poor	<i>Buxxichu</i>	Up to 2 <i>timad</i> land, but half of it rented out One or more livestock raised on shared arrangement Small enset coverage (up 100, only immature) 1–2 chicken, works as daily labourer, PSNP beneficiary	Food insecure and vulnerable
Destitute	<i>Wie'na buxxichu</i>	No livestock, no enset (except very few and immature at his backyard, 1 <i>timad</i> and often rented out PSNP beneficiaries, socio-economically vulnerable groups such as low caste clan members, displaced and returnee households, demobilised soldiers after 1991	Food insecure and vulnerable

Note: *Timad* is a local unit used to measure the size of farmlands. One *timad* is approximately 0.25 ha and 1 ha is approximately 4 *timad*.

Source: Author's fieldwork, 2011.

After this process, the total percentage of the different wealth groups within the total population in respective *kebeles* was established. After the participants completed the wealth categorisation process, they were further asked to identify households in their respective villages considered as 'vulnerable and affected' and 'resilient and less affected' by *green famine* in 2007–08. The list of names of households provided by the participants was crosschecked with the list obtained from the *kebele* and *woreda* earlier. In each category, 10–12 households per *kebele* were sampled representing the broader characteristics of households in the *kebele* for the follow-up questions and discussions (see Table 2.1). The identification process helped to define important characteristics and attributes of different households such as livelihood groups and social and economic status within the broader population in the *kebele* and study area. The results of the community wealth categorisation showed that the majority of resource-poor, vulnerable and *green famine* affected households were drawn from the bottom two wealth categories (poor and destitute) whereas resilient and

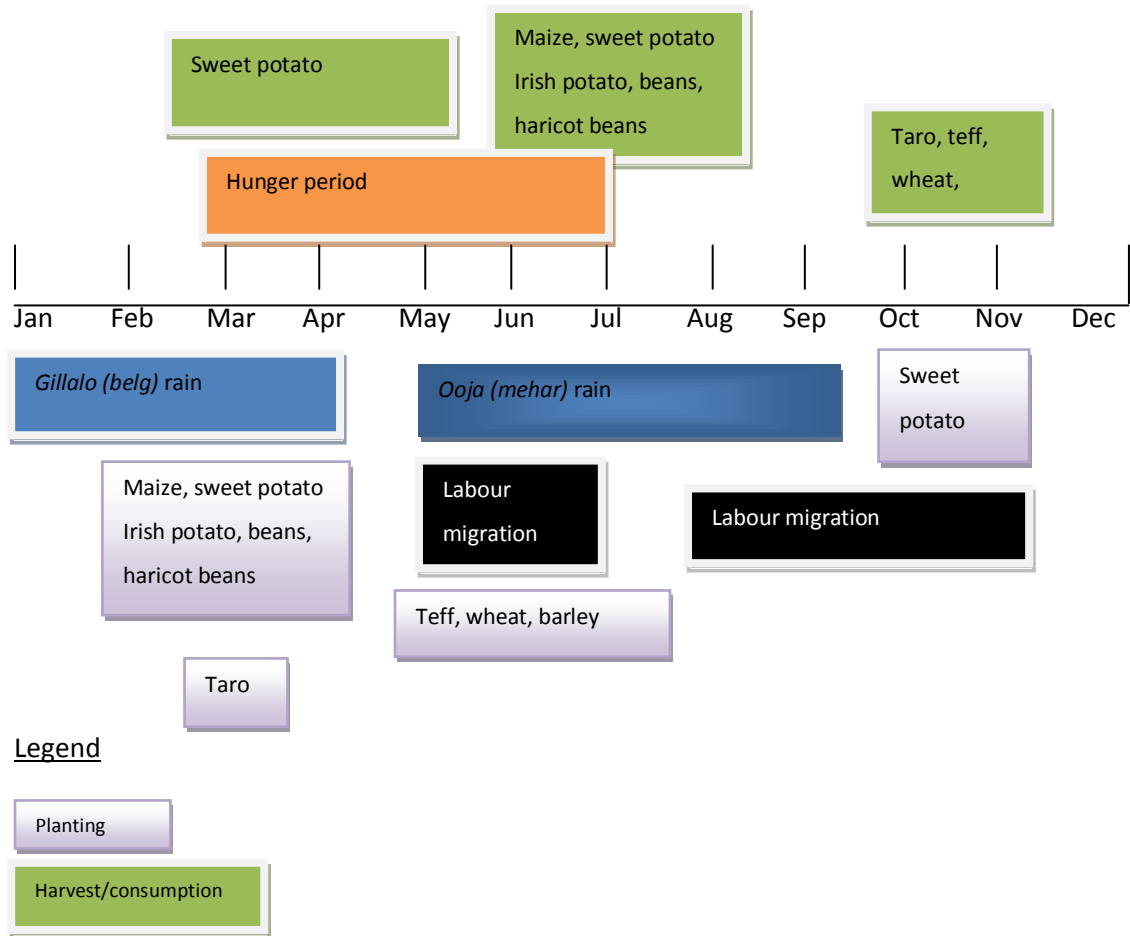
less affected households were from the top two groups (better-off and middle wealth categories) across the three districts.

2.5.1 Agricultural seasonal calendar of the study area

The study area experiences a bi-modal pattern of rainfall and has a very intricate farming calendar that consists of many activities during the year. The *gillalo*⁷ (*belg*), a short rain occurring between January/February and March/April, supports the production of short cycle crops such as sweet potato, Irish potato maize, haricot beans, taro and different vegetables. As can be seen in the seasonal calendar in Figure 2.2, almost all the *belg* production is consumed during the normal lean season that extends from March to July and covers the household food consumption needs until the *ooja*⁸ (*mehar*) crops are ready (DPPC 2005b: 2). However, it should be noted that the in highland *kebeles*, the lean season extends until October.

⁷ *Gillalo* is the local name for *belg* rain in Kambata area.

⁸ *Ooja* is the local name for *mehar* rains in Kambata area.

Figure 2.2: Agricultural seasonal calendar

Source: Author's fieldwork, 2011, and DPPC (2005b: 2).

The second – longer – rainy season, *mehar*, starts in May/June and ends in mid-September or early October. During this time the peasant farmers mainly plant *teff*, wheat, horse beans, barley and other food crops normally harvested in October/November depending on the type (early/late maturing) and rain performance. Seasonal labour movement takes place at two different times from August to November, just after the end of planting *mehar* crops such as *teff*, wheat, barley and sweet potato for those in highland areas, and between May and June, just after the end of *belg* plantation activities and late September until December in the case of mid-altitude and lowland areas of the district. The labour movements are intra-regional and some people go to the maize, wheat and chilli pepper producing areas while others go to state plantations of sugar cane and agro-processing industries in the Rift Valley region of the country to earn additional income (DPPC 2005b: 1- 2). However, since 1991 seasonal labour movement has been very limited (Dome *et al.* (2012: 66). The latter is described as 'circular migration' by

Ellis (2000) and the migrants could stay for up to half a year depending on the availability of jobs and the amount of farm activities and labour needs on their own farm at home.

2.6 Fieldwork

The fieldwork for this research was undertaken in two phases. The first phase from September to December 2010 was an introductory phase while I was based in Ethiopia. In this period, I was part of the Institute of Development Studies (IDS) and International Food Policy Research Institute (IFPRI) team that was commissioned by the World Bank to undertake an impact evaluation of the Ethiopian government's PSNP. Simultaneously, I was pursuing the identification and mapping of important actors at different levels for my research. Being part of the team provided me with a unique opportunity to access the gatekeepers of information, particularly in the region of interest SNNPR, which otherwise would have been a lengthy and negotiated process. I implemented the second phase of my fieldwork from January to September 2011.

As noted above, the study was undertaken in three *woredas*. In each *woreda*, two *kebeles* were selected for the community-level fieldwork. Prior to accessing communities at the *kebele* level, I visited offices of the Woreda Administration Council and Agriculture and Rural Development to present my research permission letter, introduce the research objectives, process and select *kebeles* to undertake the research. After choosing the *kebeles* at the *woreda* level, I paid a visit to the *kebeles* with my research assistant and explained the research objectives and purposes to the *kebele* administrators (the *kebele* chairperson and the manager), members of the *Kebele* Food Security Task Forces (KFSTFs), Community Food Security Task Forces (CFSTFs) and Development Agents (DAs). After the introduction and discussion with the *kebele* actors, community elders (key informants) including both men and women were selected, forming separate groups scheduled for a meeting during the following week. Before the actual fieldwork, the community-level field instruments were tested and revisions were made accordingly. The focus group discussion points and interview questions were prepared in English and conducted in Amharic, the official and main language of Ethiopia, and Kambatigna, the language of the Kambata ethnic group. As a native speaker of both languages, translation was not a problem. However, during the discussions and interviews, I had to pay maximum attention to some of the ambiguous concepts and terms of my research to ensure that the correct words were clear and conveyed the right meaning and reflected

what was intended. In some instances, interviews were conducted in English, particularly with expatriate food security and famine experts who were working or had worked in Ethiopia. With the key informants of both male and female groups, we conducted various PRA exercises such as community wealth ranking, proportional piling and timeline/chronologies to understand the main events and changes that had happened in the recent history, as well as positive and negative effects on the livelihoods in the area (field instruments are shown in Appendix 1). During the community timeline exercise, the *green famines* of 2003 and 2007–08 emerged as important events that affected the community in its recent history. Once we established a list of events, we followed up with the facilitation of focus group discussions around the *green famine* of 2007–08. After a wealth-ranking exercise, the community elders were asked to help identify those households/groups affected by the *green famine* of 2007–08 and households considered poor and vulnerable economically and socially within their local villages based on locally defined indicators. These indicators are discussed in Table 2.3 above. Once the right combination of groups was identified, various activities consisting of PRA exercises and FGDs were facilitated, similar to those done with the community elders.

Respondents to household case studies were purposively selected from among the focus group participants who were deemed to have relevant and interesting life stories related to the central research questions. The description of case study households included households whose members were admitted to the emergency feeding centres during the *green famine* time, households who had lost their family members due to the *green famine*,⁹ returnee households from resettlement sites and other regions since the regime change in 1991, households who deployed extreme and irreversible coping strategies, caste groups (see in Chapter 6), households with unique livelihood strategies, households who had a member migrate to the Republic of South Africa, the Middle East or other places, and PSNP beneficiary households.

After completing the *kebele*-level work, key informant interviews (KIIs) were conducted with the *woreda*-level authorities, including the *woreda* administrators early warning and food security experts from the office of agriculture and rural development. The respondents were

⁹ In Kambata culture, it is very shameful to reveal in public that a family member has died due to hunger and famine-related causes. Thus the participants had to be encouraged to meet the researcher after the session for a one-on-one discussion at their homes.

selected based on their experience of work and knowledge in the area of concern in the past ten years and before. In addition to interviews with these actors, *ad hoc* discussions were conducted with health and nutrition experts from the *woreda* offices of health and clinics who had first-hand knowledge of *green famine*. At the zone and regional levels, key informants were interviewed with experts on food security and early warnings, agriculture and extension services, agronomy and inputs division from the bureaus of agriculture and rural development and food security. Further, senior researchers at the regional Agricultural Institute and Areka Enset Research Centre, food security experts at the UN and humanitarian agencies, and academics at Hawassa University were interviewed.

After completing the community, *woreda*, zone and regional-level fieldwork, the last phase of fieldwork was conducted in the capital, Addis Ababa. Officials were interviewed in government agencies (the Food Security Directorate, Livelihoods Integration Unit, Ministry of Agriculture and Rural Development, Emergency Nutrition Units), academic and research institutions (Addis Ababa University and Forum for Social Studies), the UN agencies, and food security and famine experts from different aid agencies. Since the research retrospectively interrogates the causes of *green famine*, which is a politically sensitive issue, almost none the government officials were open to having a thorough discussion at the capital and regional levels. As a result, it was very challenging to arrange interviews. However, flexibility with timing and the use of an extended network of friends and colleagues to access these actors was actively explored. In contrast, it was very gratifying to have discussions and interviews with experts and academics on issues surrounding food security, hunger and famine in southern Ethiopia, which are not often talked about within mainstream policy and research in Ethiopia.

All the interviews, household case studies, FGDs and PRA exercises were audio-recorded to ensure all relevant information was fully captured. After the transcriptions were completed, all the field data was systematically categorised and grouped into different thematic areas according to the central research questions. First, preliminary data analysis was undertaken during the organising of field notes and the transcription of the recorded information. Further comprehensive data analysis was facilitated by adopting a thematic analysis approach to focus more on the meanings and contents of the information, rather than counting and quantifying the themes (Sayer 1992). However, there were instances where some relevant themes were quantified to evaluate how often respondents at different levels gave the same information.

2.7 Ethical considerations and reflections on positionality

As noted earlier, the research was conducted in my birthplace and the surrounding *woredas* where I have worked as a DA at the local level. Being an insider gave me unprecedented access to the community and other information I needed to carry out my research. However, having such a close relationship to the local context and population also presented some challenges in terms of maintaining the right balance, neutrality and level of interaction with respondents. Thus, I had to maintain a focus on the objectivity of the work during the entire process.

Further, I have been away from my community for nearly a decade to study and work as a development practitioner in different parts of the world. Hence, I acquired a perceived 'new and elevated status' in my community and in the eyes of former colleagues; subsequently the power relationship had changed. At the beginning of my fieldwork some local actors, particularly the local authorities, considered me as an outsider due to my long absence and changed status. However, after explaining and discussing my research objectives and purpose for returning to the community, I was able to reconnect with the population and was able to conduct my fieldwork with no significant challenges. After a certain level of trust was re-established, the community members became more comfortable and opened up to discuss and share their experiences of hunger, famine and government policies on the ground.

Research ethics require that the researcher must ensure the confidentiality of the research participants and protect them from any harm (Laws *et al.* 2003). In line with this, the research was carried out according to the ethical guidelines of the University of Sussex, UK. Prior to interviews and discussions, verbal consent was elicited from research participants to record their voices. For individual case studies involving participants' who lost their family member or relatives due to the *green famine*, I applied culturally appropriate and sensitive methods of enquiry.

The politics surrounding hunger and famine in Ethiopia are very intense, sensitive and complicated. Further, the occurrence of drought-induced food crisis and famine situation in the greater Horn of Africa during the time of my field research did not have a positive influence on my research. Because of the drought, the livelihood situation particularly in southern and south-eastern Ethiopia deteriorated and famine once again became noticeable in the media. Thus, unsurprisingly, the majority of the local authorities and senior officials at different levels were not comfortable in fully engaging in the research process. However, such

problems were managed by repeated attempts to explain my research objectives, and I relied on my extended network and insider privileges to acquire critical information without exposing informants to any potential harm. In addition, I ensured the confidentiality of respondents, particularly those who were affiliated with government offices and policies at various levels, by using pseudonyms in my records, and often refraining from audio-recording the discussions to avoid any repercussions for them in the future.

The PhD fieldwork experience was a very exciting process and full of learning moments from interviews and discussions with people from different background and experiences. However, It was also frustrating to witness the sheer disconnect between people who suffer from *green famine* and government authorities and other outside actors. The latter have never experienced a famine situation in their life and yet they argue that it is just a food crisis and that there is no famine in the area of concern. The level of failure of responsibility is beyond comprehension. Further, it was also a challenging experience: discussing households' experience of suffering from hunger and *green famine* and learning the level of suffering they had gone through was particularly difficult. Equally, listening to the stories of people who had lost their family members and relatives due to *green famine* was an emotionally draining experience. In contrast, it was a remarkable experience to witness the resilience and the enterprise of vulnerable people in how they have navigated through the effect of *green famine* by deploying different coping strategies. Living with my family and circle of friends helped me immensely to overcome and deal with the situation and successfully complete the fieldwork.

CHAPTER 3

Literature review and analytical framework

Famine victims are not well served by famine theory (Devereux 1993a: 28).

3.1 Introduction

This chapter presents the literature review of this study. It discusses a range of concepts and discourses pertinent to this research including definitions of famine, famine theory and famine coping strategies, malnutrition, rural livelihoods resilience and vulnerability and concepts and measurements of food security. It also explains the reasons for selection of Sen's analytical framework of 'entitlement to food' to investigate the causes of food insecurity and *green famine*.

3.2 The concept and definition of famine

Historical evidence suggests that the existence of famine can be traced back to biblical times and humankind has suffered from many dreadful famines since then. As Maxwell (2001: 13) noted, the 'biblical story of Joseph's encounter with the Pharaoh' while he was in exile in Egypt provides an early recorded incidence of famine. Joseph was summoned to interpret the dream of the Pharaoh and, as the bible story narrates, revealed it by foretelling that:

Behold, there come seven years of great plenty throughout all the land of Egypt; and there shall arise after them seven years of famine; and all the plenty shall be forgotten in the land of Egypt; and the famine shall consume the land (Genesis 41: 29–30, King James Version).

The story also illustrates how the concept of the modern day 'food security planning' and 'emergency food reserve' (Dessalegn 1991:221; Maxwell 2001: 13) was started based on Joseph's famine forecast as the Pharaoh ordered his officers to gather food all over Egypt and store it to be used during famine years (Genesis 41: 34–36).

Despite the fact that remarkable success has been achieved in reducing vulnerability to famine and its occurrence in many parts of the world, famine still persists today and looms as large as it did centuries ago, particularly in Africa. As recently as 2011, the world witnessed the horror of famine in Somalia on TV and online, which depicted emaciated children and adults in their

last bid for survival migrating en masse to neighbouring countries. This famine inflicted serious damage to the livelihoods of thousands of people and the death of an estimated 244,000–273,000 people, mostly children (Checchi and Robinson 2013: 10). As Mesfin (1984), de Waal (1989), Swift (1993: 1) and Devereux (1993a) argue, ‘famine is a preventable tragedy’ and there is enough capacity and resources to eliminate famine globally. However, the occurrence of the latest Somalia famine is even more distressing because it happened in an era when exchange of information through social media services (Viber, YouTube, Facebook, Twitter, Skype, Instagram, etc.) is at the fingertips of billions people and the world is more connected than ever before.

There is a plethora of academic literature on the definition and causes of famine. However, there appears no single and comprehensive definition that all actors agree upon (see, e.g. de Waal 1989; Walker 1989; Deng 1999; Edkins 2000; Howe 2002: 20; Lautze *et al.* 2003). The definition of famine has remained a contested ground for multiple actors who are involved in famine prevention, response and management including famine scholars. However, for people who have experienced dreadful suffering from famine, the concept and definition of famine is very clear and they know precisely what hunger and famine entail. De Waal identified the existence of a rift in the understanding and definition of famine between the outside actors, more specifically those who use the English term ‘famine’, and insiders (‘famine victims and locals in Africa’). The former define and see famine as ‘starvation/mortality, whereas the latter do not associate it with starvation and mortality’ (de Waal 1989: 10). This raises a basic yet legitimate question of ‘whose definition’ is correct and should be counted? Is the difference in the conceptualisation of famine between insiders and outsiders a part of the puzzle of why we are still witnessing this avoidable tragedy?

In his seminal work *Theories of Famine*, Devereux (1993a: 10) neatly summarises and classifies the definition of famine into five categories. These are: (1) dictionary definitions, (2) definitions that consider famine as a result of food availability decline, (3) famine as mass starvation definitions, (4) behavioural definitions, and (5) insider definitions. Analysing most of the widely available famine definitions, Devereux described the challenges of arriving at a simple and clear definition that could be used across all contexts: ‘Most attempts to define famine merely describe its commonest causes and effects, and the boundaries between definition, description and explanations of famine are often blurred’ (Devereux 1993a: 9-17).

The *Oxford Advanced English Learner's Dictionary of Current English* (2013)¹⁰ defines famine as 'a lack of food during a long period of time in a region'. This definition is very simple and linear, and assumes that famine is an event that takes place when a given region experiences an extended period of food shortage. As Devereux (1993a: 10) argues, dictionary definitions of famine fall short, because they fail to recognise the dynamics and complexity of social and economic livelihood systems in different regions and livelihood zones. Devereux summarises that, with the exception of the insider's definition of famine, definitions tend to agree on asserting famine to be a result of food shortage; famine implies starvation and inflicts excess mortality on its victims. The most polarising aspects of the concept of famine are related to famine mortality and viewing famine as event versus process.

3.2.1 Contested grounds of famine

3.2.1.1 *Famine inflicts excess mortality*

As noted, the conceptualisation of famine remains divided among various actors and is largely dominated by a mortality discourse. Notable scholarly works that put forward in this category include, among many others, Sen 1981; Cox 1981; Watts 1983; Mesfin 1984; Ó Gráda 2009.

Sen (1981: 40) analysing four different famines in Africa and Asia has advanced the notion of famine mortality: 'Famine is a particularly virulent form of starvation causing widespread mortality.' Similarly, others have also argued that famine inflicts excess mortality on its victims. For instance, analysing rural vulnerability to famine particularly in the central and northern highlands of Ethiopia from 1958 to 1977, Mesfin (1984: 9) defined famine as:

a general and widespread, prolonged and persistent, extraordinary and insufferable hunger lasting for several months and affecting the majority of the rural population over or more or less extensive area, resulting in total social and economic disorganization and mass death by starvation.

This way of defining famine suffers from some conceptual/ theoretical deficiencies. First, defining famine based on area coverage is misleading and could have a serious implication for famine response because famine can occur in a smaller geographic area and affect only a small

¹⁰ *Oxford Advanced Learners Dictionary*, [online] Available at <http://oald8.oxfordlearnersdictionaries.com/dictionary/famine> (Accessed 25 November 2009).

portion of people in a given region or country. Second, only a small section or class of a total population suffers from famine and the vulnerability to famine and the level of affectedness could significantly vary within the same livelihood and socio-economic groups. Third, the causes of mass death are not necessarily related to starvation as will be discussed later in more details. Sen (1981: 43) stressed that famine does not affect the majority of population, asserting: 'While famines involve fairly widespread acute starvation, there is no reason to think that it will affect all groups in the famine affected nation.'

Due to the linking of famine with mass mortality, the scale of mortality has become a decisive factor in famine classification and responses. By contending the mortality narratives, Edkins (2000: 39) noted, 'In the modern view, famine is widespread starvation; the suffering and death of particular individuals is what counts and what is counted. The greatest famines are the ones where the largest numbers of death occur.'

As a result, mortality during a given famine situation has remained the strongest indicator and prerequisite for denoting a situation as famine. All the definitions above have highlighted that there is a strong linkage between famine and mortality. However, different empirical studies have refuted this argument and have revealed why famine does not always result in mass mortality. For example, de Waal, in his influential work *Famine that Kills* (1989), differentiated famines that kill from those that do not. Based on empirical work in western Sudan among the people of Darfur who experienced famine in 1984–85, he tried to dispel the strongly held assumption of famine resulting in excess mortality by arguing that 'Famine means, in Darfur, not merely starvation [and mortality] but also hunger (that is, all manners of suffering), destitution, and social breakdown' (*ibid.*: 76). He indicated that the cause of mortality during the 1984–85 famine was not directly a result of starvation; it was due more to unhygienic and overcrowded living conditions and subsequent diseases (see also Young and Jaspars 1995). In bringing the perspectives of destitution, suffering and failure of social support into famine conceptualisation de Waal challenged the automatic association of famine with mortality. Similarly, Young (1992:4) defined famine as 'the later stage of food scarcity when people become destitute and many more than normal die because of the conditions produced by famines, which encourage the spread of diseases'. Importantly, De Waal's work on famine in Darfur highlights the views of famine victims who have their own criteria for defining famine.

Despite being challenged for a long time, the mortality discourse of famine still influences decisions regarding the classification of famines. However, as we advance into the twenty-first

century the applicability of this discourse is becoming more and more limited. Given the advances in nutrition and health treatment, logistics and communications, the availability of famine early-warning systems and response capacities, present-day famines do not result in excess mortalities any more. Thus, unless it is caused by a conflict situation, as in Somalia, it is inconceivable that there will be another famine of the magnitude of the 1984 famine in Ethiopia, resulting in excess mortality and mass migration of hungry people to relief camps. As various famine scholars have advocated for a long time, the conceptualisation of famine should move away from mortality discourse and be based on the victims' perspective.

This research will adopt the definitions of both de Waal and Young to analyse how people experience and define famine in their lives, how vulnerability develops into destitution and to understand better why government and major actors often refrain from using the word 'famine' during aggravated food crises.

3.2.1.2 Famine is 'a one-off event'

Broadly, there are two divergent views among different actors involved in famine study, policy and decision-making circles (de Waal 1989; Howe 2002: 20; Devereux 2001a; Ó Gráda 2009: 9). Some scholars argue that famine is an event that explodes suddenly and affects a segment of the community and country at large (Mayer 1975, cited in Howe and Devereux 2004; Sen 1981). Sen, based on his work on famines in Ethiopia, Bangladesh and the Sahel countries in the 1970s, argued: 'A person can be plunged into starvation if his/her endowment or entitlement to food collapses' (*ibid.*: 46).

This is a classic example of the view of those who see famine as a one-off event that catches people suddenly like a flash flood and causes starvation and death. This conceptualisation fails to recognise that before the actual famine, there are always 'chains of events' (shocks) that occur and weaken the resilience of livelihoods (Howe 2002: 21; Lautze *et al.* 2003).

The competing school of thought to this view assumes that famine is a process and has different distinct phases until it grows to a full-scale famine (Walker 1989; Mesfin 1984; de Waal 1989; Dessalegn 1991; Deng 1999). For instance, Rangasami argued that famine is not an event *per se*; it is rather a social process. It builds on vulnerability and grows and matures to a full famine at certain levels. Rangasami identified three phases of the famine process: 'dearth' or incipient famine, 'famishment' or maturing famine, and 'full-blown' famine (Rangasami

1993, quoted in Howe and Devereux 2004: 356). Walker (1989: 6) also challenged the concept of famine as an event by arguing that famine should be understood as ‘a socio-economic process which causes the accelerated destitution of the most vulnerable, marginal and least powerful groups in a community, to a point where they can no longer, as a group, maintain a sustainable livelihood.’

This view is nearer to famine victims’ own understanding. For people who have experienced and suffered from famine it is not a surprising event that occurs unexpectedly. Some famine scholars argue that understanding and conceptualising famine as a process has much to offer towards the efforts of famine prevention, response and management, while the opposing view can significantly limit the efforts. This is because considering famine as a sudden event masks the underlying causes of vulnerability and a growing deterioration of livelihoods (Lautze *et al.* 2003). Responding only after the famine situation matures and households have adopted irreversible coping strategies affects the capacity of livelihoods against current and future shocks. Failing to address factors that are making livelihoods vulnerable is treating the symptoms of the problem without solving its root causes (de Waal 1989; Howe and Devereux 2004).

Like considering the defining consequence of famine to be excess mortality, conceptualising famine as a one-off event is a conventional and outdated famine discourse (Bevan and Pankhurst 2004). As explained in chapters 4 and 6, famine is a process that has distinct phases and stages, and communities are aware of its progression and are often ready to deploy different strategies to deal with the ‘bad days’ ahead of them.

3.2.1.3 Famine coping strategies

The literature on famine indicates that during the 1980s and 1990s, a strong research emphasis was given towards identification of household coping strategies and their role as predictors of impending food crisis and famine situations (Cutler 1986; Longhurst 1986; de Waal 1989; Dessalegn 1991; Davies 1993; D. Maxwell 1996). Osmani (1998) noted that in the course of hunger and famine, households do not just sit back and wait for external help. They fight hard against the situation by employing different types of ‘risk-minimising and coping strategies’ to get through the challenging times they face. Coping strategies are defined as ‘responses and measures undertaken by an individual member or all household members

against seasonal or extended food shortages (decline in food supply and access) at household and community levels' (Davies 1996: 45).

Coping strategies are often adopted in 'a sequenced manner' (Corbett 1988: 1103; Dessalegn 1991; Davies 1993; Ayele 2008). For instance, Corbett (1988: 1103-1104) drawing on the empirical evidence of household coping strategies adopted during the 1970s and 1980s famines in northern Nigeria, northern Ethiopia (Wollo) and Red Sea and West Darfur regions of Sudan, noted similar patterns in the sequencing and order of household coping strategies and responses to overcome food shortages and famines. Households consider the costs and benefits of coping strategies, often starting from easily reversible risk management before moving on to irreversible survival strategies (Mesfin 1984; Corbett 1988; de Waal 1989; Walker 1990; Dessalegn 1991; Devereux 1993b). Coping strategies and adapting strategies are different and serve different purposes. As Davies (1996: 59) defined them:

Coping strategies are the bundle of producer responses to declining food availability and entitlements in abnormal seasons or years, while adapting strategies involve a permanent change in the mix of ways in which food is acquired, irrespective of the year in question.

As coping strategies are direct actions undertaken by people who face food insecurity or famine (insider's experience), they have much to offer in famine conceptualisation and classification (Carr 2006: 17). However, many food security and famine writers have expressed their scepticism on the role of coping strategies, arguing that coping strategies are not sequential, or universal and that they are too diverse (Riely 1991; Davies 1993; Howe and Devereux 2004). But recent empirical evidence indicates that coping strategies adopted by households in many countries of Africa are categorically similar and sequenced (Walker 1989; Dessalegn 1991; Maxwell *et al.* 2008). Corbett (1988) observed that the type of coping strategy could signal the onset and severity of famine. Overall, there is a general understanding that coping strategies are critically important in gaining a better understanding of the progression and the extent of famine. When households face food shortages, they start adopting different coping strategies in an evolving process – from simple and easily reversible to complex and irreversible. When all evolving and available coping mechanisms are exhausted, households consider that full-scale famine has begun. Coping strategies adopted by households during crisis situation are rational and households do not arrive at decisions on deploying irreversible strategies easily unless the situation is beyond their capacity because, as Cannon and Müller-Mahn (2010: 625) and Dessalegn (1991: 1990) argued, people 'behave culturally' even when confronting difficult [famine] situations.

3.3 Theories of famine causation

The causes of famine are multidimensional and thus there is not one single theory that fully explains why famines occur over time. Thus, there is not a single best prescription that can help to prevent further famines from occurring (Devereux 1993a, 2001a). Devereux argued that one of the contributing factors for the absence of a single theory of famine is the different forms of 'disciplinary biases that are associated with the theorists themselves as they tend to reflect and present their own ideology (left, right, liberal), discipline (economist, anthropologist, climatologist, nutritionist, demographer, sociologist) on famine' (Devereux 1993a: 29). There are four famine theories that explain the occurrence of famine: supply failure theories, demographic theory, demand failure theories, and political/policy-oriented theories.

The supply failure theorists argue that famine is caused by climatic factors (e.g. drought, floods, el Niño)¹¹ and environmental factors including desertification and soil fertility decline, and other related factors. This group's thinking is very linear in its nature, and its central argument is that the above factors eventually affect food production. The aggregated decline in food supply in a country or region can result in mass starvation and famine. This supply failure discourse of famine is still the dominant explanation in the present day, particularly in the context of Africa where famine persists. In the case of Ethiopia, which has experienced more famines than other countries in sub-Saharan Africa, this discourse of 'drought famine' is strongly held among the circles of policy-makers and other actors (Mesfin 1984; Lautze *et al.* 2003; Degefa 2005, 2006).

Although an aggregate food supply decline could be an important contributing factor in food insecurity and famine, this school of thought fails to understand aspects of vulnerability, access and other components of complex food systems. As Devereux (1993a: 37) argued, 'drought causes crop failure; but *vulnerability* to drought causes famine'. Further, this thinking also views famine sufferers as helpless and passive victims of the vagaries of nature. However, as the literature on coping strategies shows, when faced with food shortages due to various shocks, households do not sit back and wait to starve. Rather, they deploy different coping

¹¹ Devereux categorises these under the 'political economy of famine' consisting of soil erosion, deforestation, overgrazing, overpopulation, colonialism, dependency and self-cropping (1993a: 113).

strategies and can access food through different informal networks they have established during good and bad times (Longhurst 1986; Corbett 1988; Dessalegn 1991; Davies 1993; D. Maxwell 1996). The supply failure theories of famine cannot fully explain the causes of famines. Still, they have influenced explanations of *green famine*.

The second most dominant famine causation theory is the *demographic theory*. This theory was initially advanced by Reverend Thomas Malthus in 1798. After more than two centuries, this theory of famine still has a significant influence on the conceptualisation of famine (de Waal 1989; Devereux 1993a, 2001a; Lautze *et al.* 2003: 105; Degefa 2006: 8). The Malthusian theory can be categorised as a supply-side theory of famine as it asserts famine as an outcome of food shortage. However, given its historical role in the explanation of the causes of famine, it is treated in its own right. This theory asserts that 'food production can increase at most by an arithmetical progression while population simultaneously increases in a geometrical progress such that population growth outstrips food production'. As a result, starvation/famine occurs and plays its 'balancing role' between the two variables (Devereux 1993a: 47). The central argument of this theory is that the effect of population growth could affect the total output of food production and subsequently causes starvation. The applicability of the demographic theory in explaining the causes of famine is insufficient and has been successfully challenged on several grounds.

First, population growth actually has a positive effect and can help to increase agricultural production through investment in irrigation facilities and research on agriculture and biotechnology on improved production techniques and transportation. Despite massive growth of the world's population over the last century, modern biotechnology successfully introduced high-yielding, disease- and drought-resistant and early-maturing crop varieties and advanced farming techniques. The green revolution is a classic example of how most of heavily populated and food-deficit Asian countries were able to achieve remarkable food production and overcome food shortages and famine by using improved crops such as rice and wheat and production techniques. Evidences indicate that 'when faced with land shortage and a growing demand for food at household level, households can opt for farm intensification strategies to raise productivity by utilising more labour, improving production techniques and frequent cultivation techniques' (Boserup 1983; Devereux 1993a: 46; Moorehead and Wolmer 2001: 105). Second, famines do not reduce population growth; evidence suggests that in the aftermath of famine, countries have experienced 'a population-boom' compared to pre-famine periods. Further, during famine times the prevalence of mortality is higher among 'the

very young and the very old'. Third, strong and sustained economic growth serves as family planning and discourages population growth. As witnessed in Western countries and recently in emerging economies, with a higher economic status and improved living standards, households tend to opt for small family size (with fewer children) for economic and other reasons (Dyson and Ó Gráda 2002 cited in Lautze *et al.* 2003: 106).

The third important famine causation theory is focused on the *demand side* or what Devereux classifies as *economic theories of famine*. This group associates the causes of famine mainly with a lack of access to food due to poverty, market failures, hoarding and the failure of exchange entitlement, rather than with the availability of food as argued by the supply-side thinkers. The thinking behind this famine theory has come to the fore of famine debate through Sen's entitlement approach, and has been advanced by many modern-day famine thinkers, analysts and development and policy experts globally. Sen challenged the supply-side theory by examining four different famines in Asia and Africa and concluded that several famines have taken place with no significant decline in food availability per capita. Sen (1981) said people face famine not because of food shortage, but because of the failure of their different set of entitlements to food. He defines entitlements as 'a key set of alternative commodity bundles that a person can command in society using the totality of rights and opportunities that he or she faces' (1984: 497). He identified that an individual or a household could ensure their entitlement through the following options: production-based, trade-based, labour-based and inheritance and transfer-based entitlements (Sen 1981: 2).

However, this theory of famine fails to capture the nexus between politics and famine, and how politics shape and contribute to the famine process. Most of the contemporary famines in Africa are mainly linked to conflict and violence-generated emergencies (de Waal 1989; Keen 1994; Duffield and Prendergast 1994; Edkins 2000). It also overlooks the role of humanitarian intervention against the incidence of famine in modern times.

The fourth group of famine causation theory departs from both supply-side and demand-side thinking, as it focuses on the political and policy determinants of famine. In comparison to other famine causation theories, this one is relatively new and some scholars argue it is not 'a full-fledged famine theory' (Degefa 2005: 69). The central argument is that the majority of contemporary and historical famines are the result of political dysfunction, or are politically driven and often intended to suppress certain groups of society to achieve political gain. 'Lack of a functioning multiparty democracy', and poor government policies, interventions and

response failures (failure to acknowledge the existence of famine and failure to respond on time) are evident. The famine of Ethiopia in 1984–85, the Chinese famine in 1958–62, the North Korean famine of 1995–98, and the southern Sudan famine of 1998 are all classic examples of how states (often dictatorial regimes) manipulated the context and eventually created a famine situation (de Waal 1989; Keen 1994; Deng 1999; Sen 1999: 178; Devereux 2001a: 135).

Both de Waal (1997) and Sen (1999) presented a new dimension in the thinking on famine, asserting that the causes of contemporary famines in Africa originated from lack of democratic governance systems and a failure of political accountability on the part of both national governments and international relief organisations. This emerging thinking on famine is different from all previous theories of famine causation. However, the democracy thesis of famine by Sen has limited applicability and usefulness in famine prevention and management particularly in an African context. Despite the claims of most of the current governments' political systems in sub-Saharan Africa to be democratic, they are undemocratic democracies. For instance, in most famine-prone countries such as Somalia, Ethiopia, Eritrea and South Sudan, the presence of strong and vibrant civil society organisations, a free press and a multiparty system is very weak and non-existent (Bailey 2013: 28). However, despite difficulties in enforcement, the 'anti-famine political contracts' approach could be applicable and help to reduce the occurrence of famine. As argued by Devereux (2007: 7), this emerging new thinking on famine brings the three critically important elements in the famine causation process – politics, policy and response failure – to the centre of famine debate and analysis.

The conventional narrative and understanding of the cause of famine in general and *green famine* in particular among policy-makers and famine experts in Ethiopia is dominated by the supply failure theories of famine. Thus, most policy responses were aimed at increasing availability of food at the aggregate level with less focus on diverse livelihood and farming systems. The analytical framework of this research is built around the various theories of famine. It mainly draws on the 'entitlement approach' to unravel the causes of food insecurity in general and *green famine* in particular in K-T zone. The entitlement framework (Sen 1981:154) is chosen because:

- (1) It is comprehensive and identifies several reasons why individuals are prone to, and affected by, famine.
- (2) It does not provide a single cause of famine, but rather a general framework of analysis (Devereux 1993; Vadala 2004: 16)

- (3) It draws on social, political and economical perspectives, and explains how famine affects only certain segments of the population unable to access their entitlements, as opposed to famine affecting the masses whereas others are able to cope.

Further, Sen's entitlement approach has changed the long-held view of presenting famine as a catastrophic event that affects the masses, to an event affecting certain households and specific livelihood groups. According to Sen, 'starvation is the characteristic of some people not having enough food to eat' (Sen 1981: 1). His insights provide a framework to investigate which livelihood and social groups are more affected by *green famine* and are more vulnerable to different livelihood shocks in the study area. At a wider and national level, this analytical framework is particularly relevant in the case of food insecurity and famine study in Ethiopia, where the dominant discourse of the causes of food insecurity and famine are explained by the supply failure theories of famine.

3.4 Rural livelihood strategies

Rural livelihoods are diverse and complex. Rural households engage in different forms of livelihood strategies both farm-based (on-farm) and outside the farming business (off-farm) to make their living, reduce their vulnerability to food insecurity and overcome shocks and stresses. As Swift and Hamilton (2001: 90) argued, sustainability is a key quality and measure of a successful livelihood and food security is 'an important element of a sustainable livelihood'.

The Sustainable Livelihood Framework (SLF) has become the centrepiece of rural development and food security policy planning and responses. This approach helps to understand better the complexity of systems, sources of vulnerability and strategies that people use to make a living (Carney *et al.* 1999). As Scoones (1998: 5) noted, 'a livelihood is sustainable when it can cope with and recover from stresses and shocks, and maintain or enhance its capabilities and assets, while not undermining the natural resources base'.

The state of household livelihood outcomes (sustainable/food secure or vulnerable /food insecure) is determined by the interaction of different factors such as household assets/capital (natural, economic, human, social, physical), policies, practices and institutions that relate to how a household is able to access and utilise them over time (Scoones 1998: 3, Lautze *et al.* 2003: 77). Although the overwhelming majority of rural livelihoods in Africa are agriculture-

oriented, studies have shown that ‘agriculture is not the only, and in many cases not even the main, source of food security and income’. Rather, earnings from ‘non-farm activities’ are becoming increasingly important sources of income (Swift and Hamilton 2001: 67; Reardon 1997 (1996), Turner *et al.* (1993) cited in Carswell 2000: 3). According to Ellis (2000: 15) livelihood diversification is ‘a process by which rural families construct a diverse portfolio of activities and social support capabilities in their struggle for survival and in order to improve their standard of living’. Livelihood diversification process and the outcomes are shaped by different endogenous and exogenous factors. For instance, Carswell (2000: 31) in her study in Wolita, southern Ethiopia highlighted how an institutional arrangement, particularly an informal local savings institution (*equb*), can mediate the access to resources (finance) for a household’s pursuit of livelihood diversification by engaging in petty trade. By utilising their capabilities and assets, households are in continuous pursuit of positive livelihood outcomes. However, in addition to assets, the existence of a favourable policy environment is a prerequisite to attaining and maintaining positive livelihood outcomes.

3.4.1 Concepts of vulnerability and resilience

Like the causes of famine, the causes of livelihood vulnerability are multidimensional.

Chambers (1989: 1) defines vulnerability as

exposure to contingencies and stress, and the difficulty in coping with them. Vulnerability has thus two sides: an external side of risks, shocks and stress to which an individual or household is subject: and an internal side which is defencelessness, meaning a lack of means [assets] to cope without damaging loss.

According to Vaitla *et al.* (2012: 3), resilience is the ‘ability of an individual, a household, a community or an institution to withstand a shock or setback of some type and recover, or “bounce back,” after a setback’. As with vulnerability, the resilience of a household is influenced by both endogenous and exogenous factors.

Moser and Holland (1997: 17) associated vulnerability with the level of household asset ownership: ‘The more assets people have, the less vulnerable they are; the greater the erosion of assets, the greater the level of insecurity’. However, in a complex livelihood system, the poor asset level of a household is not the only factor that can determine the level of vulnerability of household livelihood to risks and shocks and subsequent food insecurity and famine. In Sen’s (1981) analysis, a household’s vulnerability to famine is a result of a failure of

different sets of entitlements, individually or concurrently. As a livelihood outcome, vulnerability is influenced by different internal and external factors. Lautze *et al.* (2003: 80) argued that ‘the policy environment in general and policy interventions introduced to support livelihoods of people in particular could be a source of both resilience and vulnerability’ for household livelihoods over time.

As noted above, the Sustainable Livelihood approach has pushed the dimensions of livelihood vulnerability and resilience to the centre of food security analysis. In this approach, vulnerability is considered both a ‘context’ (e.g. shocks, trends, seasonality) and a ‘livelihood outcome’, and the term vulnerability describes the risk-response interactions and the outcome (Carney *et al.* 1999; Alwang *et al.* 2001: 11). In this context, vulnerability is a more dynamic process and forward-looking concept that indicates how the interaction between different factors and the outcome can affect the state of livelihood at present and in the long term.

3.4.2 Concepts of food security and food security measurements

Like famine, food insecurity is a multidimensional phenomenon and manifests in two types, chronic and transitory. Chronic food insecurity is caused by structural factors such as weak economic growth, bad policies, and poor infrastructure and market systems. In a community/livelihood zone where the prevalence of chronic food insecurity is high and widespread, the risk of vulnerability to hunger and famine is higher and a single shock can push livelihoods over the edge. Thus, successfully ensuring food security in such contexts reduces the vulnerability of people to hunger and famine. Transitory food insecurity is more short-term, seasonal in nature and triggered by drought, conflict, sudden price changes and other factors (Alemayehu 2001: 5; Degefa 2006: 5).

Until the 1980s, discourses on food insecurity presuppose that famine were due to a decline in overall food availability. Sen (1981) challenged this view by showing that food insecurity and famine can exist while there is an abundance of food. In his work on the evolution of thinking about food security, Simon Maxwell (2001: 14) traced how the global view of food security has progressed and changed since the 1970s, shifting from ‘global and national *food supply*, towards the issue of household and individual *access to food*’. One of the important outcomes from the 1996 World Food Summit in Rome was a refined definition of food security as a situation ‘when all people, at all times, have physical, social and economic access to sufficient,

safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life' (FAO 1996: 1).

Similarly, the measurement of food security and the unit of analysis have also seen considerable changes over the last 35 years (D. Maxwell 1996). As a result, most of the food security measurements include 'subjective indicators' that reflect the perception of people who experienced food insecurity or are vulnerable to food insecurity along with objective indicators (national food balance sheet, consumer expenditure data, daily calorie intake, nutrition balance of food sources) (Degefa 2005: 77). There is a caveat in measuring the national food balance sheet as it often focuses on cereals only and fails to capture indigenous and traditional food sources (often root and tuber crops and other wild foods) consumed by households across the world. Further, as noted by Scoones (2007: 318) the national data on average household food energy is 'notoriously unreliable as the national data collection capacities of most countries in Africa are weak and limited'. Recently, considerable efforts have been made in incorporating the qualitative indicators of food security. For instance, since 1995, the United States Department of Agriculture (USDA) has developed a 'qualitative' food security module that is used along with the standardised survey to measure the subjective indicators (perception and behaviour) of household food insecurity and hunger (Kennedy 2002: 21). As we enter the twenty-first century, global food security thinking and discourse has also progressed further by focusing more on livelihood security.

Similarly, the Coping Strategy Index (CSI) developed by Daniel Maxwell (1996) and 'reduced CSI' (rCSI) by Maxwell *et al.* (2008) is another example that indicates the progression in thinking on food security measurements and the emergence of qualitative/subjective food security indicators in the scene of food security analysis. The CSI measures 'the behaviour of people', particularly how people respond when their access to food is threatened by different factors. The CSI combines both the frequency and the severity of coping strategies to establish the current food insecurity level of a household. The higher the CSI score the more serious the food insecurity situation at household level.

Recognition is given to intra-household food distribution and factors that are affecting individual food entitlement or real access to food such as gender, age, culture, income/employment status etc. With a rapidly evolving and changing discourse and thinking on global food security over time, food security policies and responses have been changing subsequently at global and national levels too. In the light of a dynamic and changing thinking about food

security, this thesis examines how the food security policies that are in place in Ethiopia reflect the changes in thinking and whether they are addressing household vulnerability to food insecurity.

3.5 Relationship between food access, malnutrition, morbidity and mortality

Generally, food insecurity, malnutrition, poor health and disease (morbidity) and prevalence of mortality are interlinked. The malnutrition status of a population of a given livelihood zone or country is established through undertaking complex and scientific assessment techniques that measure a prevalence of wasting or a 'proportion of child population (six months to five years old) who are below 80 per cent of the median weight-for-height or below -2 Z-score weight-for-height' and also known as Global Acute Malnutrition (GAM) (NCHS, 1977 cited in Howe and Devereux 2004: 362). In the same manner, an estimate of mortality rate is established by measuring 'the number of deaths that occur in a population of known size that is at risk for the death event during a specific period of time and can be expressed in terms of crude and age-specific rates (Under Five Years Age) deaths per 10,000 people per day' (Checchi and Roberts 2005: 2–4) (see more on this in Chapter 6).

As noted earlier, when confronted with chronic or acute food insecurity households respond by deploying different coping strategies including reducing consumption, going without food for longer than usual and relying more on cheaper and less nutritious food sources, distress selling and leasing out their productive assets including land, and others. However, although such coping strategies provide a short-term respite and solutions to hunger, they often have wider nutritional, social and economic repercussions. Empirical evidences suggest that, for instance, relying on less nutritious food sources for a sustained period decreases the balance of important micronutrients that are critical for maintaining normal function of the human body system. Similarly, cutting back the size of a meal, going without food for longer periods and subsequent loss of micronutrients has a negative effect on the overall immune system. The cumulative effect of these actions by individuals or communities results in 'weakened immune system, increased loss of weight, increased risk of infection to various diseases including diarrhoea and increased risk of acute malnutrition particularly among children' (Brinkman *et al.* 2010: 158–59). As Young and Jaspars (2006: 33) argued, 'combined food and health crisis creates a high risk of both malnutrition and mortality'.

However, the linkage between food access, malnutrition prevalence, morbidity and mortality

is not direct and more complex and as a result it has been and still is subject to controversies and contested views and conclusions over time by different actors (Lautze *et al.* 2003: 138). Such a complex and contested relationship between these variables often sends wrong signals and has often resulted in formulation of inappropriate policy responses to food insecurity (chronic and acute) and famine situations in different settings. Like food insecurity and famine, malnutrition is a multidimensional phenomenon and thus calls for an integrated and holistic approach to understand the multiple factors that play a role in its occurrence and to design effective responses and interventions. The conceptual framework of malnutrition developed by UNICEF (1998) for the analysis of nutrition indicates that the underlying causes of malnutrition stem from poor access to food, poor public health and inadequate health services and inadequate maternal and child care practices. According to this conceptual framework, food insecurity is just one of many factors that cause malnutrition and thus cannot sufficiently explain it in isolation. Different studies have also revealed that 'the risk of dying associated with malnutrition' is influenced by different confounding factors such as seasonality, livelihood groups (pastoralist vs. sedentary agriculturalist), settlement structure (internally displaced persons and refugees in camps versus residents in normal settings), age and demographic factors (under five, adolescents, pregnant and lactating women and elderly) and others (de Waal 1989; Checchi and Roberts 2005; Young and Jaspars 2009: 54–81).

Similarly, the role of malnutrition prevalence (anthropometric outcomes) as indicators of food insecurity and famine situations remains contested on the basis of whether they are early or trailing indicators of the situation. For instance, citing the empirical work of Kelly (1992) in the 1980s in Wollo region of Ethiopia Lautze *et al.* (2003: 135) contend the role and contribution of anthropometric outcomes in famine early warning system as:

Deterioration in anthropometric status is not a particularly late indicator of acute food insecurity and concluded that although nutritional status may be an early indicator of food insecurity in some circumstances, this cannot be generalized to all contexts; therefore, nutritional status cannot be used to predict famine.

Echoing this perspective, Young and Jaspars (2006: 27) highlighted that the relationship of malnutrition status and mortality is not linear but complex, indicating that 'high levels of malnutrition can occur without mortality levels exceeding the emergency threshold, and high levels of mortality can occur without concomitant increases in the prevalence of malnutrition.' Various empirical studies in sub-Saharan Africa and other regions prone to food insecurity and malnutrition shed light on the complex relationship between food insecurity, malnutrition and

mortality. Young and Jaspars (2006: 1, citing Itano 2003) noted that ‘in Southern Africa in 2002 two years of drought and widespread harvest failure caused acute food insecurity and a regional food crisis followed, but there was apparently no widespread malnutrition and mortality’.¹² By reviewing nutrition and mortality indicators and thresholds that are widely used by different actors during emergency and developmental settings include the IPC, Young and Jaspars (2009: 80) concluded that ‘there is no way of accurately (quantitatively) apportioning the relative importance of food, disease and malnutrition in contributing to death because of the complex pathways through which this takes place and the synergy between them.’

However, despite there being a lot of grey areas and a lack of wider consensus, malnutrition rate, particularly GAM, is widely regarded as a ‘strong and objective predictor and indicator’ of the severity and risk of food insecurity and famine situations and thus used to trigger responses and advocacy purposes (IPC Global Partners 2008; Young and Jaspars 2009: 19). As de Waal (1989: 31) succinctly captured the growing role of anthropometric outcomes in a contemporary famine classification and response:

The figures of ‘percentage malnourished’ retains a powerful grip on the perceptions of famine by international agencies. An extreme manifestation of this trend is the tendency to define famine as ‘nutritional emergency’. The development of techniques such as nutritional surveillance creates a ‘citadel of expertise’ (often inappropriate expertise) which prevents dialogue with lay people, including the famine victims. Thus, *in contemporary discourses* famine has become a technical malfunction, not a human experience (emphasis added).

As discussed in chapter 6, due to lack of commonly agreed thresholds of malnutrition different actors and agencies use different levels during emergency settings.

¹² However, a retrospective study by Devereux and Tiba in Malawi indicated that indeed famine situation occurred in 2002 (see more on Devereux and Tiba 2007: 144).

CHAPTER 4

***Green famine* explained: An analysis of its timeline, causes and impacts**

Famine has wreaked havoc in Ethiopia for so long; it would be stupid not to be sensitive to the risk of such things occurring. But there has not been a famine on our watch – emergencies, but no famines ('Meles Q and A', *Time Magazine*, August 2008).

More and more famines are 'man made', by default if not intent, and fewer can be attributed to natural catastrophe (Stephen Devereux, *Theories of Famine*, 1993: 22).

4.1 Introduction

This chapter deals with the concept of *green famine*, the central theme of this study. By tracing the roots of *green famine* in the famine history of Ethiopia and by defining its causes, the chapter aims to situate the concept of *green famine* within the wider discourse of famine causation theory.

Green famine refers to the occurrence and spread of food crises and consequential famines in the green and enset-dominant livelihood zones of southern Ethiopia (Alemayehu 2001). As discussed previously, these areas are historically food secure, certainly relative to the more famine-prone areas of the northern Ethiopian highlands. Despite the fact that *green famine* is widely used in the media and among different actors to describe the state of food crises in the southern Ethiopian highlands, there is a general knowledge gap about the historical and geographical occurrence of *green famine*. Some argue that the history of *green famine* dates back to famine times of the late 1970s and early 1980s, whereas others argue that the history of *green famine* goes back to the 1984 famine that affected the larger part of the northern, north-eastern and central highlands and lowlands of Ethiopia (Goyder and Goyder 1988; Dessalegn 2007).

Section 4.2 presents challenges of famine definitions in the literature and in the official discourse in Ethiopia, while Section 4.3 presents local definitions and understanding of famine according to famine-affected and non-affected communities in the study area. Further, the chapter investigates the historic developments and milestones around the incidence of *green*

famine, in what circumstances it has been applied and how the issue has unfolded and affected the lives and livelihoods of people in K-T zone. It also analyses the underlying causes and factors that triggered the *green famine* in 2007–08.

4.2 Challenges of famine conception and definition in Ethiopia

As noted in Chapter 3, there is no agreed definition for famine. Given the confusion that surrounds the term, politicians and aid officials often debate when to employ ‘famine’ to describe a situation of severe suffering that is taking place (Howe 2002; Howe and Devereux 2004). In particular, bureaucrats and politicians often seek to avoid to use the term ‘famine’ during food crises, instead preferring to label these as a ‘humanitarian emergency’, ‘food crisis’, ‘livelihood crisis’ or ‘near-famine situation’. The key question remains, however, of why the concept of famine is so contested despite the significant strides that have been made in understanding its causes and management? Reflecting on the 1998 Bahr el Ghazal famine in southern Sudan and why different actors failed to declare it earlier, Deng (1999: 6) noted ‘It seems that the perception of famine as starvation is most appealing to the Westerners and their media upon which the voluntary [humanitarian] sector entirely depends’.

In the context of Ethiopia, particularly among the various actors involved in hunger and famine response and policy-making, famine is conventionally understood as an extreme event of food crisis that can inflict higher mortality rates (Lautze *et al.* 2003: 133; Lautze and Maxwell 2007: 224). As a result of associating famine with higher mortality and absence of widely agreed definition of the term, politicians and aid agencies have shied away from using the term to describe many crises in Ethiopia where there was great suffering and the loss of lives and livelihoods. For instance, comments by the late Prime Minister of Ethiopia, Meles Zenawi, during the 2003 and 2007–08 events indicate how famine was understood and defined. In November 2002, when interviewed by the BBC Africa Programme, Meles said that up to 15 million people were facing a severe food crisis situation. He warned that unless external support was provided, the situation could turn into a famine worse than the 1984 famine: ‘If the 1984 famine was a nightmare, this one will be truly appalling’ (BBC 2002). Yet, as seen in his comment in the opening quotation to Chapter 4, in 2008 the Ethiopian government claimed that there was no famine on their watch, only ‘emergencies’.

Many institutional and major aid actors in Ethiopia have also decided to avoid the use of ‘famine’. For example, the USAID Famine and Early Warning Systems Network (FEWS NET)

described the unfolding situation in 2003 in Ethiopia including southern Ethiopia as ‘pre-famine conditions’. The FEWS NET (2003: 5) food security alert stated:

Without question, the sheer magnitude of Ethiopia’s 2003 *emergency food needs* appears daunting. Yet, unlike the 1984-85 famine, viable institutions such as the DPPC, EFSR and Government-donor coordination mechanisms are in place to monitor and analyze food security conditions as well as catalyze and coordinate an effective response delivery to the affected population. Humanitarian disaster and outright famine can and must be averted through massive food aid pledges and deliveries by the Ethiopian government and humanitarian community (Emphasis added)

In a similar manner, senior government officials and representatives of UN agencies that I interviewed in 2011 offered the following views:

‘The 2003 and 2007–08 food crisis in Southern Ethiopia is one of the worst that the region ever experienced. It affected a sizable portion of people across the region particularly poor segments of the society. However, we can categorise it as a near famine situation’ (KI_HA/UN-WFP/03/05/2011).¹³

‘I think overall this *green famine* issue is exaggerated to me and there is no such a big issue of hunger in these areas’ (KI_HA/RG-FSEW/04/05/2011).

‘Well, it is hard to categorise it [2007-08 *green famine*] as a famine because the official death rate is not known and it is sort of silent’ (KI_AA/FED-FSEW/10/09/2011).

‘There was death of children but I think those who died were those already affected before the emergency situation’ (KI_KB/WO-FSEW/05/01/2011).

Table 4.1 presents the results of nutrition surveys conducted by four different NGOs – Concern (Ireland), World Vision (WVI) (USA), OXFAM (UK) and Médecins Sans Frontières (MSF) (Switzerland) during the 2000 and 2003 *green famines* in three districts in Wolita zone and two of the study districts in K-T zone in southern Ethiopia.

¹³ See Appendix 2 for details of coding system.

Table 4.1: Selected nutrition surveys in SNNPR, 2000–2003

Woreda	Agency	Date of survey	GAM Z-scores (95% CI)	SAM Z-scores (95% CI)	Mortality /10,000/day	
					CRM	U5
Damot-Weyde	Concern	April 2000	25.6%*	4.3%	N/A	N/A
Boloso-Sore	OXFAM	July 2000	45.1%**	20.4%	N/A	N/A
Kacha-Bira	WVE	May 2000	17.4%***	2.8%	N/A	N/A
Kadida-Gamela	WVE	May 2000	17.2%****	1.3%	N/A	N/A
Damot-Gale	MSF	April, 2003	27.5 %	8.2%	1.1	2.8

*Thirty randomly selected cluster survey with a sample size of 960 children; **Cluster sampling, 30 clusters, 901 children screened; ***708 children sampled; ****773 children sampled

Source: Van der Veen (2000:15) and from the ENCU database 2011a

Table 4.1 shows that the malnutrition rate is extremely high and beyond the 15% GAM emergency threshold set by the WHO. Although five districts cannot be considered a fully representative sample for the entire region, overall, the results indicated the prevalence of a very high level of malnutrition. The results also indicated that the under 5-mortality rate in Damot Gale is higher and surpassed the food crisis phase threshold (1-2/10,000/day) used by the IPC (see Chapter 5).

The above responses shed light on how famine is a contested notion both conceptually and politically. People in power often shy away from using the term ‘famine’ and reach for descriptions that imply the severity of the situation was different, not least because of the difficult questions that are raised once it is accepted that a situation is grave enough to be categorised as a ‘famine’. However, the difficulty in using the term contributes to delays in response or inappropriate levels of support being given (Howe 2002). In addition to these, I argue that other factors contributed to an aversion to the term famine. First, as Howe and Devereux (2004: 355) argued ‘famine is a more emotive word’ than food crisis or hunger, and declaring a situation as famine could have profound political costs and risks both domestically and internationally. History shows that, domestically, previous famines played a prominent role ‘in regime changes’ in Ethiopia (Lautze and Maxwell 2007: 224, Hampson 2008; Lautze *et al.* 2009: 13). Because of such high political risk, the government has a strong incentive to downplay the existence of famine by using different terms such as food shortages or emergencies. Investigating the trends of famine conditions in various African countries,

including Ethiopia, Bailey (2013: 27) pointed out that ‘the political risk of famine is managed through two somewhat contradictory strategies: prevention and denial’.

Second, in the case of Ethiopia, and particularly in the case of *green famine*, the people who suffered from famine were mainly the rural poor who are relatively voiceless compared to the urban population, who have access to media and communication means to share their situation and ensure they are heard. A lack of credible information and witnessing might therefore have contributed to the denial by the government.

Third, the 2007–08 *green famine* happened at a time when the country was preparing to celebrate the Ethiopian New Millennium.¹⁴ The ruling party (EPRDF) was widely promoting the ‘success’ of its policies, particularly accelerated economic growth and agricultural production, since it came to power in 1991. Thus, amidst these grand events nationwide, it was in the interests of the regime to downplay the significance of *green famine*. The timing of the *green famine* in 2007–08 has a historic parallel with the 1984 famine in terms of the government’s failure to admit and respond in a timely and appropriate way. Goyder and Goyder (1988: 86) and Africa Watch Committee (1991: 169) cited in Lautze *et al.* (2009: 18) noted:

Clearly the priority of the Government in September 1984 was that the tenth anniversary of the revolution and the founding of the Communist Workers’ Party of Ethiopia be celebrated in great style. Political priorities were paramount and attention and resources became diverted from the devastating problems of famine building up in the countryside.

Fourth, regional politics also played a role as the crisis was in the SNNP Region, home to more than 45 ethnic groups, whose political influence pales in comparison to the dominance of the ethnic groups in northern Ethiopia, which is historically the country’s famine belt. A similar situation was observed when famine struck Gode district in the pastoralist Somali Region of Ethiopia in 2000, where the central government kept silent until the news broke out through different media outlets (Salama *et al.* 2001; Hammond and Maxwell 2002: 263). However, the people who were affected and experienced the scourge of famine define famine in their own terms as detailed below.

¹⁴ Ethiopia follows the old (Julian) calendar of the Coptic Orthodox church, which is 7 to 8 years behind the Gregorian calendar. The New Millennium was celebrated on 11 September 2007.

4.3 Definition of hunger and famine according to different community groups

Historical evidence indicates that Kambata was ‘an independent kingdom until Menelik II annexed it in 1892 into the Ethiopian empire’ (Braukämper 1983, cited in Belachew 2001: 132). Currently, the Kambata people are one of the major ethnic groups in southern Ethiopia. Kambata is located in the north-eastern part of the SNNPR. The total population of Kambata in 2008 was estimated to be 611,674 (BoFED 2011). However, although official data is lacking, many Kambata people reside in different parts of the country and abroad, mainly in Republic of South Africa. Kambatigna/Kambatisa is the main language of the Kambata people and it falls under the wider Highland East Cushitic group language. Amharic is the official working language of the K-T zone. In addition, different languages of neighbouring ethnic groups such as Hadiyigna and Wolitigna are widely spoken in the area (Wolde-Selassie 2001: 61; Yacob 2002: 45).

Discussions with four categories of community groups across the three districts show that there is a common understanding and agreement on the definition of hunger as ‘food shortage’, that is due to various factors affecting agricultural production (production-based entitlement failure) and access to food (See Table 4.2). However, households affected by famine and those who were unaffected define hunger differently. Affected households who are generally from a poor socio-economic background view hunger not only as a shortage of food. As participants in a FGD with affected households in one of the study *kebeles* explained, hunger is ‘a suffering that emerges from food shortage and as a result it affects the physical appearance of victims’ (FG_KG/VCG-TG/02/03/2011).

In contrast, for the non-affected households, hunger is when their own production cannot cover their food needs and as a result they spend some days with too little food, or no food.

Table 4.2: Definitions of hunger according to different community groups

Category of respondents	Summarised definitions of hunger
Affected households	Physical weakness as a result of shortage of food due to production failure and market price increase <i>'mexxuru chamaenorru bechooda gorru yinaam.'</i> ('When there is nothing to taste, we call it hunger') Unable to eat your meal when you want due to shortage, lack of access and being dependent on unusual food
Non-affected households	When the food that is produced from own production cannot cover the food need of a household and as a result they spend some days with little food
Community elders: men	A localised food shortage that affects mostly the poor and destitute households in the community
Community elders: women	A food shortage at both home/own production and market. The reason is poverty/scarcity <i>'gorru bachoo'</i> It is just having enset all the time as a food without complements such as milk, milk products or different sauces

Source: Author's fieldwork, 2011.

A participant in a focus group discussion with elder women explained that hunger is a situation where no diverse food options are available and when they are forced to consume only enset-based foods such as *kocho*¹⁵ bread, *hammicho*, and different dishes prepared from it. Despite being an important staple food and having a very strong cultural value among the Kambata people, during normal periods, enset-based foods are not consumed alone and at every mealtime. Enset is served and consumed with different sauces and dishes. Hence, when such options are not available, they consider the situation as hunger.

Kambata people see famine as a more complex process that often persists for months as the affected people continue to suffer silently and slowly. They only define a food crisis and hunger as famine after certain successive stages have taken place and clear indicators are manifested. According to the Kambata elders who were consulted during the field research and in other *ad hoc* conversations, it appears that famine is a sequential process, and hence there are a series of stages that take place before the actual famine happens. The first phase of hunger is called *shoomma*, a desire or feeling that one experiences if one skips a meal due to various reasons. This feeling disappears upon having a meal and this stage is different from normal hunger. During the onset of the hunger season, this *shoomma* is very commonly

¹⁵ *Kocho* is a fermented and processed enset-based food consumed in the form of bread or other forms. *Hammicho* is the underground corm of enset usually consumed boiled with milk or yogurt (see Brandt *et al.* 1997: 11)

experienced and people endure it by having a small portion of food or, as a community elder put it, '*shoomu yemazuuta karsen sha'g aye'mada jechuuta assanno*' ('a temporary feeling of hunger can give you a time when you could tighten your stomach'). As the availability of food at the household level winds down, during the onset of the hunger period, households skip meals often from three meals a day to one meal and as a result, they experience the first phase of hunger (*shoomma*) on a regular basis.

The second phase is *gorro*, which is actual hunger, described above as a general shortage of food (Table 4.3). This stage is more serious than the first one and cannot be overcome by tightening the stomach and simply adjusting the meal size. An elderly respondent explained the severity of hunger as '*gorru hunnen faenumbua*', meaning 'one cannot escape hunger by running away'. *Gorro* is probably longer than just 'simple' seasonal hunger and it may affect the larger community and to an extent even the better-off households. The duration of *gorro* also reflects the process of suffering and distress that many people go through. People normally adopt different coping strategies in the event of *gorro*, such as selling their assets and calling upon their friends and patrons for extended support. In most cases they also borrow cash or food at a higher interest rate to get through the difficult days. If households are able to deploy different types of responses, no death needs to occur at this stage. Another distinctive feature of *gorro* is that the informal social support remains intact and those who are affected can claim support. The community elders also explained that the magnitude of the effects is an important feature that differentiates *gorro*/hunger from *udufunne*/famine. As a community elder explained:

'Gorru abish xudamumbuo hikansi gajajuntis gorru kawu manna affano (hunger is not often visible because it affects small segment of the community). However, famine is very visible and affects almost everybody and as a result it strains the social support system' (FG_KB/AS-CEM/27/1/2011).

The third phase is more complex. It is called *udufunne/qaane* and means a situation of an extreme shortage of food where literally nothing is available to depend on (Table 4.3). This is the equivalent of a destitution phase where households run out of options. When they call it '*kazzamannu uddufunnit aa'ggeu*' it means, 'this year we are experiencing an onset of extreme food shortage' at home and in the market, and even what they bought on the market is not enough for their needs. At this stage, people go for days with very little or no food, and as a result those who are affected start showing clearly visible signs of physical weakness due to hunger and early starvation. They become emaciated and show significant loss of body weight,

which will remain for some time at this stage. If no support is provided in the form of food at this stage, people will quickly move to the next phase, which is called *yewulle*, literally meaning 'being swollen'. This contrasts with the previous stage as the physical body starts swelling significantly, particularly the legs and belly. Nutritionists describe this as oedema. Movements are often limited at this stage as the affected people generally lack energy to move around in search of food and may even collapse on the road. These signs are often manifested in certain demographic groups such as under fives, lactating and pregnant women, and some elderly people. According to elders, once someone arrives at this stage, his/her chances of survival are very limited. If no emergency support is provided at this critical stage, the next stage will be eventual death.

Table 4.3: Concept and definition of famine in Kambata

Famine stage in local name	Description	Perceived causes	Example
<i>Shoomma</i>	A feeling that one experiences for short period in the absence of food	Seasonal food shortage	Common during lean seasons
<i>Gorro</i>	An extended shortage of food from own production and high price at market. It could cause severe suffering physically and psychologically	Rain failure, market behaviour, crop/ livestock disease occurrence	2000, 2003
<i>Udufunne/qaane</i>	An extreme shortage of food at household and community level and when large segment of population is affected. An equivalent of destitution. Affected people show signs of physical weakness and emaciation. Informal safety nets collapse	Progressive loss of household assets due to different shocks over time, failure of coping strategies	1984, 2003
<i>Yewulle</i>	Affected people show signs of swollen feet and belly (oedema)	Progressive loss of assets, no access to nutritious food, failure of coping strategies, failure of social support system	2007–08
<i>Rehuuta</i>	Final stage/death	Disease, government and humanitarian response failure	1984

Source: Author's fieldwork, 2011.

Kambata views of famine as a process rather than a sudden event contrast with formal definitions that emphasise the number of people who died. Factors such as loss of livelihood, failure of social support systems, increased destitution and types of coping strategies adopted are different indicators the Kambata use to define the different stages of famine. The views of famine among the Kambata is strikingly similar with the Dinka ethnic groups in South Sudan

and other communities in Africa (Deng 1999:7-8) (see also discussion in Chapter 6). This sophisticated local classification system offers valuable insights for the Ethiopian government and other humanitarian actors who seek to avert further *green famines*, as argued elsewhere in the thesis.

4.4 The concept of *green famine* and its timeline in southern Ethiopia

This research does not aim at establishing a chronological timeline and historical evidence of when *green famines* have occurred. But it aims to explore some of the historic developments and milestones around the incidence of *green famine* in southern Ethiopia. It is believed that by doing so, our knowledge and understanding about the magnitude of *green famine* in general will be enhanced and it will help to engage with different actors and policy-makers in designing a context-based remedy to prevent *green famine* from recurring in the future.

Interviews with academics and famine experts indicate that the term *green famine* was coined during the 1984 famine that struck Ethiopia. Two Western development practitioners who lived in Ethiopia while working for humanitarian agencies during the 1984 famine came across the deceptively green situation of the agro-ecology in the enset-dominant livelihood area in southern Ethiopia. They used the term *green famine* to describe the prevailing food crisis and famine in the Wolita area in southern Ethiopia (Goyder and Goyder 1988: 88), which was a green and lush environment compared to the barren and semi-arid parts of the northern highlands of Wollo and Tigray. For the aid workers, it was a total surprise to see many people being affected in Wolita area, which traditionally was food secure. However, the severity and magnitude of the situation was not as great as the one in northern Ethiopia, which was described as a 'biblical famine' by the BBC journalist Michael Buerk who was reporting from Korem famine camp, the epicentre of the famine (BBC 1984). In contrast, *green famine* in the south did not receive much media coverage or policy attention. Goyder and Goyder (1988: 89) described this situation as follows:

To the casual observer, Welayita [Wolita] after the main rains had begun in July 1984, looked a verdant and fertile area: yet people starved in their own homes and villages, and unlike in Wollo, rarely came into camps on the main roads.

Of the 41 key informants at different levels during this study, five respondents said they first heard the term *green famine* in 1984 whereas the overwhelming majority (36) respondents indicated that they heard about it in three different periods (in 2000, 2003 and 2007–08).

Though all the respondents heard about *green famine* at different times, they stressed that since the 2003 famine they have heard the term more often, as quotes indicate:

‘I have heard about it when I was a post-graduate student at the Addis Ababa University (AAU). The term *green famine* was given to a situation of food crises and famine in the Southern part of Ethiopia specifically in Wolita region. The term was only used by some researchers from AAU and humanitarian personnel who worked in the response to the crisis. It was named a *green famine* due to the vibrant green surrounding of the area in comparison to Wollo and other drought prone parts of the country’ (KI_AA/AAU-IDR/03/09/2011).

‘First in 1984, and later since the 2000 food crisis the term became synonymous with a food crisis in most of the enset-cereal or in enset-dependent areas which includes the Hadiya, Kembatta, Wolita, Sidama, Guraghe, Gedio, Oromo and others’ (KI_AA/FSS-DR/13/07/2011).

‘I have heard about it in 2000 when hunger struck the Wolita area, and then in 2003 and 2008 some of the enset-cereal livelihood zones. Of course the situation [greenness] is distorting sometimes. I have been accompanying TV journalists and local and international staff to these parts of the country and they often do not understand the situation on the ground because this part is covered with lots of eucalyptus and other trees, and is evergreen. You can see green coffee leaves even though there is no fruit and there are different types of trees that are green year round but when you look inside the households, there is no food. It was even green in 2008 when the *belg* rain completely failed and the area experienced a protracted dry spell. This part is not like Somali or other regions, which are barren land. It is green from outside but there is trouble inside’ (KI_HA/UN-WFP/03/05/2011).

These quotes confirm that the notion of *green famine* has existed since at least 1984. However, it only came to wider attention very recently.

4.5 *Green famine* coverage in the media

All forms of media can play both positive and negative roles in efforts to manage hunger and famine. Deng (1999) assessed the positive role that the media, particularly the Western media, had in bringing to light the famine in southern Sudan in 1998 to the national government and international community. Box 4.1 presents a brief timeline indicating how the international media has captured and brought the issue of *green famine* to recognition and resultant response in Ethiopia.

Box 4.1: Timeline of the recognition of *green famine***2000****Thousands starve as '*green famine*' hits southern Ethiopia**

Each day people are dying from hunger in villages across the south as a '*green famine*' tightens its grip. It is a hidden famine in part of the country that has received little international aid in response to Ethiopia's third consecutive year of drought (Reliefweb June 2000).

Ethiopia prey to a deceptive '*green famine*'

Green famine confuses outsiders. People visit and ask 'Where is the drought? It is very green, we can see crops. How come there is famine?' But when you scratch the surface, there is a huge problem (Ewing 2000).

2003**Vicious circle traps starving Ethiopians**

Ethiopia's latest drought-driven famine seems familiar at first: infants with pot-bellies suckling the emaciated breasts of mothers too tired to wave away flies crawling across their lips. Then you notice that the countryside is lush and green, damp from rain, with cattle and goats nibbling the foliage. Take away the fields of banana and pineapple and it could be the Lake District. Yet some villages seem to be replaying the grim images of 1984, when 1 million people starved and the world vowed that it would never happen again. Bob Geldof returned this week to highlight the disaster and plead for assistance (Carroll 2003).

FEWS NET Special report

Southern Nations, Nationalities and People's Region (SNNPR) is an area becoming synonymous with the term '*Green-Famine*' a situation in which the rain is enough for the land to be green and crops are growing, but yields remain low. The paradox of *green famine* once again gripped the region in 2002, the impact of which is still continuing (FEWS NET September 2003).

2007–08**Desperation as Ethiopia's hunger grows**

'It is a strange and unsettling ride west from the Ethiopian town of Shashamene. The fields are vibrant green. There is water in the creeks. The soil is a deep rich burgundy. However, the people here speak of a 'green drought'. It is the time when the land is full of new shoots but there is no

food. It happens because the last rains failed and few crops were planted (BBC 2008).

Hunger is once again stalking Ethiopia

They call it green hunger ... Four-foot cornstalks sprout from rain-soaked earth, and wind billows fields of teff, the staple Ethiopian grain. Goats and cattle are getting fat on lush grasses but the children are still dying. It's strange to see hunger when everything is so green (Sanders 2008).

Ethiopia's *green famine* takes its toll

In Wolaytta district, some 330 kilometres south of Addis Ababa, and most surrounding areas, it is a crisis of a different kind ... the area's apparent fertility is deceptive. Rains fell at the wrong time, reserves are dwindling and 50 percent of the area's two million inhabitants are facing what aid workers have labelled a '*green famine*' (AFP 2008).

A number of observations are apparent from the media coverage highlighted in Box 4.1. First, most of the print and online media such as the *Independent*, BBC, *Guardian*, *Los Angeles Times* and Associated Press described the situation as more than just a food shortage and as being severe and causing death among the affected population. Second, there is no consensus among different actors and institutions that have reported the issue over time as they described it 'hunger', 'food shortage' and 'starvation'. Third, most concur that *green famine* is caused by irregular rainfall distribution and failure. Fourth, the USAID's FEWS NET has signalled mixed views in 2003. Despite issuing a special alert stating that the situation is 'pre-famine', it used a softer tone and diplomatic terms attributing the cause to lower production and food shortage. Given USAID's strategic alliance with the Government of Ethiopia and its food-dominant emergency response this is not a surprise. During this period, the Ethiopian government was actively involved in supporting the US government's action of 'the war on terror' in East Africa (Lautze *et al.* 2003: 119). Fifth, compared to 2000 and 2003, during the 2007–08 *green famine* the international media coverage increased impressively and is quite diverse.

Yet after three consecutive incidences of *green famine* in 2000, 2003 and 2008, the Government of Ethiopia and policy-makers have not recognised the situation as famine and

remain unclear about the underlying causes and how to respond appropriately and effectively to *green famine*. Can a *green famine* be categorised as famine or it is just a localised food shortage? This question will be addressed in Chapter 6.

4.6 Underlying causes of *green famine*

Any discussion about the causes of famine in Ethiopia is usually incomplete without pointing culpability towards what I call ‘the usual suspects and easy-to-blame factors’. As a result, associating the causes of famine with natural and demographic (neo-Malthusian) factors has been a dominant assumption among all the actors involved in policy process, research and bureaucrats at different levels over time (Lautze *et al.* 2003: 102). In the same manner, the occurrence of *green famine* in southern Ethiopia in general and the study area in particular is seen as a result of these factors. However, I argue that, although these factors alone or in combination could play a part in one way or another in the occurrence of famine, they cannot fully explain its cause, and the underlying causes of *green famine* go beyond these generic explanations of rain failure, population pressure and resultant land shortages or drought, as explained below.

Table 4.4 summarises the multiple answers provided by government authorities (n=29), academics (n=6), UN agencies (n=3) and expatriate and local food security and famine experts (n=3). In this research, underlying factors are treated as those factors that make livelihoods vulnerable or increase their vulnerability to shocks and create an environment favourable to the occurrence of *green famine*, whereas trigger factors are those that have tipped these already weakened livelihoods over the edge and exposed them to *green famine*.

Table 4.4: Interlinked underlying causes of *green famine*

Rank	Perceived causes	Number of times mentioned (N=41)	%
1	Fragmented and small land size due to population pressure	13	32
2	Dwindling enset production due to various shocks (over-reliance, disease outbreak)	10	24
3	Policy failure (weak extension services, in arrears debt and high input prices)	9	22
4	Reverse migration, restrictive labour movements, lack of local employment opportunities	6	17
4	Recurrent shocks and resultant asset depletion	6	17
5	Extinction of indigenous trees and expansion of Eucalyptus and its effect on soil	4	7
6	Poor economic saving culture among the cash crop producing communities, particularly ginger and coffee communities	3	7
6	Change of livelihoods from enset to cereal, and focus on cash crops (coffee and ginger)	3	7
6	Lack of understanding of the livelihood context and misinterpretation of green surroundings	3	7

Source: Author's fieldwork, 2011

The issue of land shortage has been discussed more often as a cause for food shortage and resultant hunger in the highlands of Ethiopia. However, the question is how small is 'too small' for a land holding per household that would really matter and contribute to the occurrence of hunger? How small is the land size in the area of study relative to the regional and national level? As shown in Table 4.4, a significant number of respondents (32 per cent) indicated that fragmented land size due to the rapidly growing population is a major bottleneck for food production and ensuring food security in the study area. The enset-based farming system, a dominant livelihood system in the study area, traditionally supports one of the largest populations per square metre in Ethiopia, and one of the highest in sub-Saharan Africa (Dessalegn 1996, 2007; Mulugeta 2007). However, spiralling population growth and the household practice of splitting productive land among the children when establishing a new family have put much pressure and strain on the existing land and its productivity. As the land is divided and subdivided when families grow, the individual plots have become even more fragmented. Data from the K-T zone Bureau of Agriculture and Rural Development in 2011 indicate that the size of average land holding per household in Kacha-Bira, Kadida-Gamela and Doyo-Gena districts was equivalent to 0.25, 0.33 and 0.5 ha per household respectively. The size of land in these districts is below the regional (0.75 ha) and national (1 ha) average (see Table 2.2). From the production point of view, these plot sizes are sub-economic and in

Dessalegn's (1994) terminology 'starvation plots'. Further, there are a significant number of landless people in the study area (personal observation). This finding also confirms the results of a previous study of growing land scarcity in one of the current study *kebeles* (Bevan and Pankhurst 1996: 6). Bevan and Pankhurst's study reported on the alarming trend of dwindling land holding in Aze-Dobo'o as follows:

The most obvious change in land holdings is the size of holdings which is decreasing at an unprecedented rate. People's holdings have become so small that some farmers have less than ¼ of a hectare. If the current trend continues it is very shocking to imagine what would happen after a few years.

The majority of respondents stressed that the shortage of farmland in the area means that households must produce crops twice a year, during both the *belg* and *mehar* seasons (described in more detail in Chapter 2), to meet the increasing food needs of the growing households. Households used to practice a sequential fallow system on their land in order to restore soil fertility. However, with such severe land shortages, households are repeatedly cultivating their plots with no fallow period to recover and replenish the nutrient content of the soils. Additionally, a lack of seeds and food reserves from the previous harvest makes households more vulnerable to food insecurity and shocks. In the past, despite a failure of one season's production and other shocks, households used to absorb and bounce back without external support and with limited damage done to their livelihoods. Currently, by contrast, a single shock, such as the delay or failure of the *belg* or *mehar* rains, can cause severe livelihood stress (Woldeyesus 2008: 5).

Dwindling of the enset crop as a household food source has been mentioned as another underlying cause that played a role in the occurrence of *green famine*. The Kambata people belong to the 'enset-culture group' or the 'enset farming system' in southern Ethiopia, where enset is considered a staple food and strategic food reserve (Shack 1966; Dessalegn 1996, 2007: 13). This banana-like perennial tree is relatively drought resistant and staple source of food (Brandt *et al.* 1997: 5). In addition to being a source of food, its leaves, stem and corm are excellent livestock feed. Enset was a defensive shield against agricultural drought-triggered food crises and hunger in the past. However, respondents revealed that its role as a staple source of food has been compromised due to various factors such as the occurrence of wilt bacteria (*Xanthomonas campestris* pv. *musacearum*), which affects large enset farms in the area (see Chapter 5). In addition, as noted above, community elders stated that persistent rain failures in the area have had far-reaching consequences on the overall livelihood situation, and

particularly had a direct knock-on effect on the production of enset. Given enset's multi-purpose roles, during recurrent agricultural droughts and resultant production failures, households have been forced to rely heavily on enset as the only source of both household food and livestock feed. Further, the dwindling size of land holdings has played a negative role on the overall production of enset in the area (Dessalegn 1996, 2007; Brandt 1996). Thus, many poor households with smaller enset farms over time have become partially or fully enset-less and subsequently switched their small plots to early maturing cereals as they can be planted and harvested twice a year compared to the longer maturation period of enset, which takes up to six years to fully mature. Frequently changing rainfall patterns and subsequent and sequential production failures have made households that switched to cereal become more vulnerable to food crises and *green famine* than those that have retained some enset in their backyards. Due to these factors, a well-balanced production and harvesting pattern of enset has been disrupted. As Tadesse (2002: 108) noted, 'planting and harvesting of enset are synchronized so that the approximate number of harvested plants correspond to the number to be planted'.

Other structural factors have also affected the ability of some households to withstand food crises. For instance, peasants in the study area practise an integrated farming system, which involves mixing crop production and livestock rearing, using the latter as a source of draught power, manure, food and a symbol of status and recognition. Further, enset requires frequent application of manure for better growth and yield production (Dessalegn 1996: 91; Dougherty 2002: 139). Over the last 15 years, this systematic integration between farming and cattle rearing has been interrupted due to various factors. For instance, as population pressure grows on farming lands, households are forced to search for new plots, and it was vividly noticeable during the fieldwork that every corner of land, including areas that used to be communal grazing land, is now cultivated. I personally witnessed this trend when growing up and working in the study area. This in turn negatively affects the availability of pasture, and as a result many households are forced to decrease the size of their livestock herds.¹⁶ The reduction of household livestock ownership and the complete lack of livestock among many poorer households affect the performance of the enset crop and disrupt the 'delicate balance' between those two elements at the household level (Dessalegn 1996; Dougherty 2002). The

¹⁶ For various reasons, such as distress sales in case of shocks, many poor households do not own livestock.

absence and loss of mature enset for the majority of poor and very poor groups of the community have resulted in endowment failure and production-based entitlement failure. As a result many households have become vulnerable to increased food insecurity and *green famine*.

The Ethiopian peasants have witnessed ever-changing agriculture and rural development policies over the last six decades and many have been affected negatively due to the fast changing policy environment. The detailed policy processes and changes are discussed further in Chapter 7. The main area where policy change has taken place since the previous political regime is the supply and distribution of agricultural inputs, particularly fertilisers, which seems to have had a direct impact on crop production and the peasant livelihood system in rural Ethiopia in general, and in the study area in particular. Prior to 1992, the Agricultural Input Supply Corporation (AISCO), a state parastatal, was the sole supplier and distributor of fertiliser in Ethiopia. However, in 1993 the central government removed the ban on private sector involvement in the fertiliser business and opened it up for traders to get involved in the supply business. Further, in 1997 the Government of Ethiopia announced that it would remove the fertiliser subsidies that had been in effect (Jayne *et al.* 2003: 300). This policy change has had a knock-on effect on the purchase of and access to inputs for many middle-level and poor peasant households. Since the lifting of the fertiliser subsidies, the price of fertiliser has increased (see Table 7.2), and as a result more and more households have become unable to afford and use the recommended amount of fertilisers on their plots. The inability to apply the recommended amount, or not applying any at all, has serious effects on the productivity of the land and hence food production. Interestingly, none of the government authorities and government-affiliated actors interviewed (n=29) for this study, mentioned policy failure as a cause for *green famine*. However, those affiliated with the UN agencies, academics, research institutions and food security and famine experts (n=9) stated that policy failure played a role in the occurrence of *green famine*. The following comment summarises this:

‘For me it is a policy failure. No more, no less! The government’s agriculture policy is not sound and lacks many important aspects of rural development. It is inclined more towards the supply side of food security that focuses more on production increase without addressing the demand side’ (KI-HA/HU-AC-1/05/05/2011).

Another policy factor that has contributed to the occurrence of *green famine* is the introduction of restrictive labour movements and reverse migration of thousands of people back to the study area. Following the regime change in 1991, the new administration

abandoned a centralised governance system and introduced a new policy of decentralisation based along ethnic lines (Lautze and Maxwell 2007: 229). As Alemayehu (2001: 10) noted, 'under this system, members of one ethnic group are expected not to settle or work in another ethnic group's jurisdiction'. In effect, this policy restricted the movement of people from one region to another and created immense tension among different ethnic groups. Prior to this policy, many people from the study area used to go to live among the Oromo and Sidama ethnic groups in different parts of the country (Belachew 2001; Yacob 2002: 45). However, after the introduction of the policy, many people have returned to K-T. A document from the office of the Gogota Care, a local NGO in K-T zone, indicated that in 1993–94, two years after the current government assumed power, about 152,095 people returned to their original districts in K-T zone from Arsi Negele and Shashamene areas, where they had settled. Of these, 3,834 returned to Kadida-Gamela district (Gogota Care 2011).¹⁷ In addition, in 1984, the Derg government implemented a forced resettlement programme, moving people from densely populated parts to sparsely populated areas of Metekel and Gambela (Wolde-Selassie 2002; Dessalegn 2007). Following the fall of the regime in 1991, most of these settlers returned to their places of origin and settled with their close relatives. The impact of such reverse migration had multiple social and economic effects on both the displaced returnees and receiving communities. It strained already meagre available land. Due to the sudden eruption of ethnic tension and subsequent displacement, many of the returnee households had come back to their places of origin with empty hands after years of building their livelihoods and hard-earned resources. Upon their return, no reintegration efforts were made by the central, regional or local authorities. As a result, the returnees had to start their livelihood from scratch on small plots of land, which they received from their immediate relatives and patrons.

Another important demographic factor that affected the livelihoods in the study area was the return in 1991 of demobilised soldiers from the previous regime. Dercon and Daniel (1998: 1662) estimated that at the national level some 509,200 were demobilised and reintegrated into their respective communities. Many young Kambata from the study area had joined the army both voluntarily and under conscription during the protracted conflict of 17 years.¹⁸

¹⁷ The accuracy of these figures should be treated carefully as there was no proper registration and documentation undertaken upon the return of these people. The document contains the list of returnees, their family size, places they were displaced, and current *kebeles*.

¹⁸ Personal communication with a former senior government official.

When the current administration overthrew the previous administration, thousands of ex-military servicemen returned to their places of origin, creating considerable social and economic disruption in the area (Yacob 2002: 45). No appropriate reintegration programmes and efforts were undertaken, and the local authorities provided just a piece of land from communal lands used for communal grazing. As these former servicemen started establishing livelihood from scratch, most of them faced serious challenges and became 'vulnerable groups'. This situation had far-reaching social and economic impacts on the study area (Dessalegn 2007).

4.7 The trigger factors of *green famine*

As noted earlier, underlying causes of *green famine* are vulnerability factors that have progressively weakened and disabled livelihoods' capacity to absorb shocks. Trigger factors are shocks that have tipped these already weakened livelihoods over the edge and exposed them to *green famine*. Among different actors in Ethiopia *green famine* triggers are often mistaken for its causes. This can in part be explained by the fact that trigger factors are exogenous and overt in nature compared to underlying factors, which tend to be endogenous and occur over long period of time. In K-T zone, triggers of *green famines* include weather-induced agricultural production shocks, market shocks, the occurrence of sweet potato blight and failure of government response.

As discussed in chapter 2 the study area receives a bi-modal pattern of yearly rainfall. In 2007–08 it faced a *belg* rain failure. This rain normally falls in January–March/April and supports the production of maize, Irish potato, haricot bean and sweet potato. These are usually referred to as 'bridging' foods and are normally consumed during the 'hunger gap' months between March and July, covering household food consumption needs until the *mehar* crops are ready. Respondents emphasised the significance of the *belg* produce for household consumption saying '*gillalu hallalinna*', which means *belg* produce is solely 'ours and private'. The expression indicates that the *belg* produce is used for home consumption while the *mehar* is mostly for market as a source of cash.

As the respondents described above, the *mehar* crops are planted as sources of cash, and households already earmark the cash earned from the *mehar* produce to cover the cash needs

of the household such as the expenses of festivities such as *Meskel*,¹⁹ school fees, agriculture input loans, land taxes and other expenditures. Against this well-planned and interlinked food production system, 2007–08 saw the complete failure of the *belg* rain and subsequent failure of production of the bridging foods as a result. This situation can be metaphorically explained as a sudden collapse of the bridge (*belg* failure), causing many people to fall into the river with the flash flood of famine washing many away. According to the community elders and different households, the rain failure had a serious knock-on effect on households, particularly those already in a precarious state of food insecurity and weak livelihoods. Different respondents in the study area explained the situation as follows:

‘The *mehar* rain failed and as a result we could not produce all the *belg* crops, particularly the root and tuber crops, especially sweet potato and taro²⁰ that used to be ready for consumption in three to four months starting March–June. It also affected the production of maize that is consumed until the summer harvest is in ’ (FG_KB/AS-CEM/ 27/1/2011).

‘The cause of food crisis was the failure of rain during both *mehar* and *belg* periods. As a result all the *belg* dependent areas missed out on the *belg* production and this had a wider impact on the food security situation of many households in the region’ (KI_HA/RG-FSEW/04/05/2011).

‘Overall, the changing weather condition has an impact in triggering the situation particularly in the lowland areas. However, in a situation where most households are at the edge of collapse, even a small shock is enough to push these people over the edge. Upon deterioration of the situation, up to 35 therapeutic feeding centres (TFCs) were established across the region and the mortality rate was shocking’ (KI-AA/UN-FAO/FSE/06/09/2011).

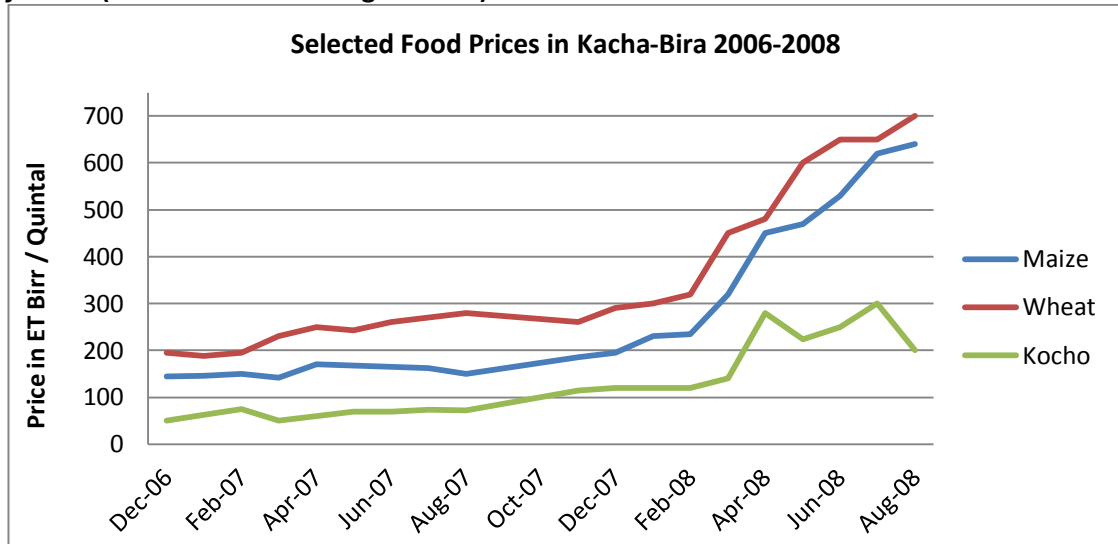
In addition to the production shocks, market shocks and particularly the sudden surge of food prices for a sustained period in 2008 were major trigger factors of *green famine* in the area. As shown in Figure 4.1, in Kacha-Bira the prices of staple food commodities began increasing in December 2006, considered as the *pre-green famine* period, until August 2008, which was the

¹⁹ *Meskel* is one of the biggest traditional festivals celebrated in the area. It falls on 27/28 September and everyone spends a considerable amount of cash for the festivity.

²⁰ Taro (*Colocasia esculenta*) is a root crop that grows in the study area and plays a significant role in household food security. Its roots (corms) are edible and rich in starch. (For more on this, see Fujimoto 2009).

height of the *green famine*. The prices of all three staple food commodities increased continuously and hit record highs at the peak of the crisis. The price hike of food commodities and the inability of households to access food caused a trade-based entitlement failure.

Figure 4.1: Kacha-Bira district price comparison of staple foods before and during *green famine* (December 2006 – August 2008)



Note: All the food item prices are indicated in Ethiopian birr (ETB), 1 USD was 9 ETB in February 2008.

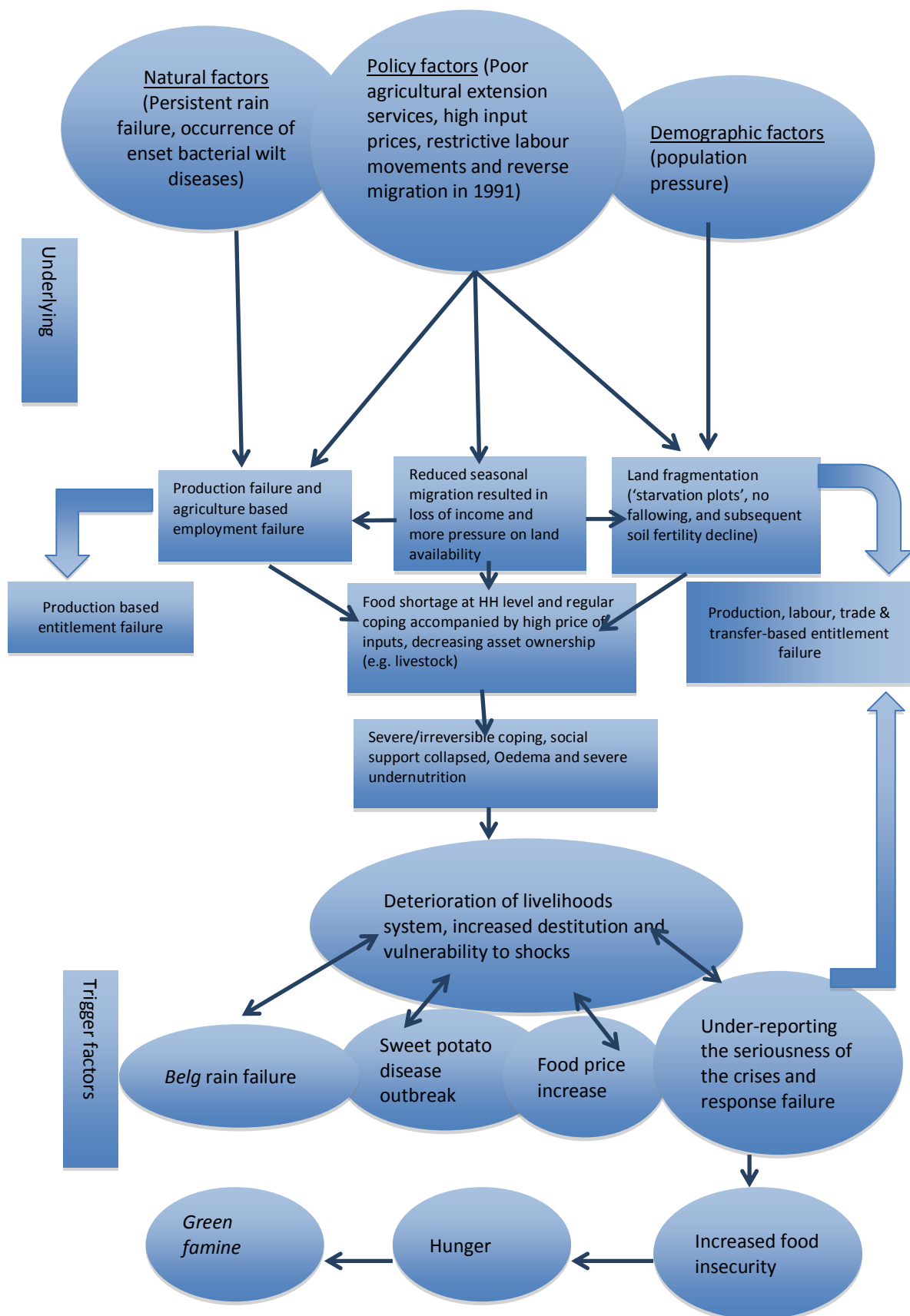
Source: Computed from K-T Bureau of Agriculture and Rural Development market assessment reports, 2011a. Data for September–October 2007 were not available.

In addition to this price hike, in 2007, peasants suffered a big loss of sweet potato due to an outbreak of sweet potato blight, a bacterial disease that affects production. Moreover, in early 2008 (February) the *belg* rain that is critically important for planting and production of sweet potato had failed to come on time, causing a sharp drop in production.

As discussed in chapters 2 and 3, Sen's 'entitlement to food' analytical framework underlines that people face famine when their different sets of entitlements fail due to various factors. Resonating with this view, *green famine* occurred for a variety of policy, political, natural, demographic and market oriented factors. These causal factors have affected the entitlements of people's access to food. For instance, the introduction of restrictive ethnic-based policies has resulted in loss of income to households through seasonal employment. This caused the failure of 'labour-based entitlement' to those households who are usually dependent on it. The occurrence of enset bacterial wilt and lack of policy attention contributed to a dwindling production of enset that normally served as 'a buffer against' shocks and source of food security (Bush 2002: 11). The reduction in availability of enset affected the 'production-based

entitlement' of households. The increasing population and resultant land fragmentation has reduced the production and availability of food at the household level, also affecting their 'production-based entitlement' of food. The increasing price of agricultural inputs (see Chapter 7), failure of production to different risks and forced repayment of loans affected the asset bases of households. Further, the outbreak of sweet potato disease, *belg* rain failure and unusual spike in food prices has affected household 'production and trade-based entitlements' to food. Failure to recognise growing vulnerability, underreporting by policy-makers and local authorities and failure to provide assistance on time resulted in the failure of 'transfer entitlements' of households. In summary, the failure of entitlements of households due to the various factors mentioned above resulted in the occurrence of green famine in 2007–08. Based on the preceding discussion and fieldwork data, the schematic diagram in Figure 4.2 summarises the underlying and trigger factors of *green famine* in the study area.

Figure 4.2: Schematic presentation of the causal factors of *green famine*



Source: Author's fieldwork, 2011

4.8 Socially differentiated impacts of *green famine*

The occurrence of *green famine* has caused serious damage with far-reaching consequences to the lives and livelihoods of people in the study area. However, a closer investigation shows that the impacts of *green famine* vary widely according to the type of household livelihood strategy, wealth group, demographic group and social and cultural background. The socially differentiated impacts of *green famine* are examined below.

4.8.1 Social impact of *green famine*

The Kambata community is very persevering and industrious; they are people who believe in the values of hard work and education. As noted by Yacob (2002: 48):

Despite successive changes in state and political structure of the country, the Kambata people have maintained their important traditional institutions such as *kokata*, *heera* and *seera*. *Seera* is the code of conduct practiced and internalized among the Kambata and governs the cooperation and relationship between individuals, tribes and territorial units.

As will be discussed in more detail in Chapter 6, affected households have deployed various common (reversible) and unusual (irreversible) coping strategies to overcome *green famine*. Taking such unusual and extreme measures has disrupted a tight-knit social structure and important values of the Kambata people who have ‘endured the most turbulent times in the history of Ethiopia’ (Yacob 2002). During focus group discussions with the community elders, both men and women, respondents revealed that during the *green famine*, many people engaged in anti-social behaviours such as stealing *enset* and *kocho*, which had never been practised in the past and is an unacceptable action according to their *seera* rules. In addition, the occurrence of *green famine* weakens social cohesion and disrupts the social network that connects people together affecting values such as mutual help, solidarity and trust. This is captured in the following quotes:

‘It used to be part of our social support system to support and help when someone runs into some kind of trouble, such as loss of livelihood assets due to fire, disease, death or others. However, currently, there is a trend of erosion of informal social support systems in the community since the incidence of the *green famine* and it is really a worrying situation’ (FG_KB/ME-CEM/10/02/2011).

‘In the past, the poor households used to depend on the better-off households through different informal social networks such as *fo’tino*, sharing of grain after someone lends his hands or happens to arrive during the threshing of grains. Also, the poor could help the better-off in land preparation, weeding, harvesting or threshing the produce and would receive a good amount of food as a return. However, currently such informal networks are disappearing as the redistributive capacity of these households have already weakened and have reached a tipping point’ (KI-AA/UN-FAO/FSE/06/09/2011).

‘During the Millennium famine [2007–08], we even stopped paying a contribution for those households who have lost their livestock due to death [informal insurance system paid in the case of sudden asset loss] as we could not afford to do. Many people have dropped out from our *herra iddir* membership [local funeral association] as they could no longer contribute 5 ETB and coffee or dinner for the family of the deceased’ (FG_KB/AS-CEM/29/01/2011).

As can be seen from the comments above, *green famine* disrupted traditional institutions and informal social networks of the Kambata. In particular, the disruption and failure of an informal social support network had serious implications for households from poor and destitute wealth categories, as they could not access their ‘transfer-based entitlements’ from the wider community. Furthermore, despite the fact that *green famine* affected everyone, as reflected by the local name ‘*Hundannka dedek aafe gorru/yewulitta*’ (a famine that affected everyone across the wealth groups), it is also noted that the occurrence of *green famine* created a few opportunities for certain wealth groups (particularly for the better off) of the community. As the severity of the situation intensified, households resorted to leasing out their critical assets such as land, selling of young seedlings of enset and this increased the availability of land and enset for a few better-off households in the area. A response from community elders aptly captures this:

‘People have become very self-centred and individualistic focusing on own problems rather than others. Particularly, people do not lend money, instead they ask you if you could rent out your land instead of borrowing. When you go to seek a temporary support, they even persuade you to consider leasing out your land for one year or more. They also ask you to do a shared plough so that they can share the output’ (FG_KG/AD-CEW/25/02/2011).

In summary, despite the fact that *green famine* caused widespread damages to the lives and livelihoods of people in K-T zone, the impacts were socially differentiated.

4.8.2 Economic impact of *green famine*

The impacts of famine are long lasting even after the famine has 'ended'. It pushes many deeper into destitution, thereby making them more vulnerable to food insecurity in the future.

As von Clausewitz (1832, cited in Webb *et al.* 1992: 90) declared:

The aftermath of famine is not the aftermath of war. No enemy has been defeated. There is no elation of the victor. Food may become less scarce again, but food insecurity remains. The next crisis looms just around the corner.

Once famine sets in, it leaves households with very few options, particularly for the poor and destitute who have a very small asset base. As a result, the affected households put their best efforts into dealing with it by selling any assets and resources that are at hand. However, if the famine situation persists and there is inadequate external help, such distress sales can lead to a complete depletion of a household's assets, leaving them in an even worse position to rebuild once famine conditions abate. The situation forces households to re-start their livelihood from scratch and the recovery process is lengthy (Dessalegn 1991: 193). Thus, understanding famine as a process that results in destitution, social support breakdown and experience of severe and extended hunger, as opposed to a sudden event that explodes when a trigger factor occurs and causes elevated malnutrition and mortality due to starvation on certain segments of the society, has theoretical and practical significance in the understanding and prevention of famine in the 21st century (De Waal 1989; Howe and Devereux 2004).

As noted earlier and will be discussed in detail in Chapter 6, during *green famine*, many households undertake extreme and irreversible coping strategies. Many sell their productive assets such as livestock and some even lease out their land for an extended period. Leasing land for an extended period imposes a severe and far-reaching consequence on the lives of the poor who out their land. It affects the present food supply of households; it also makes a household more vulnerable to any future shocks (see boxes 4.2 and 4.3)

Box 4.2: Case study: Vulnerable and famine-affected household, Ashira kebele

Detame is a 45-year-old widow who lives with her daughter aged 12 in Hego village of Ashira kebele in Kacha-Bira district. Currently she owns one *timad* of land and grows taro, enset, maize, beans and cabbage, beetroot and carrots. The number of enset plants in her backyard does not exceed 30 and they are not ready to be consumed at this stage. She used to engage in different income-generating activities such as petty trade and sometimes in seasonal casual labour to earn money, but now since employment opportunities have become very scarce her only income source is the PSNP transfer. As her farm plot is very small, she obtains most of her food from the local market.

The famine of 2007–08 was the most severe crisis she could remember facing. She vividly recalled the situation and said ‘everyone became equal, no one was better to provide support for others. The community survived due to the food aid obtained from the government and NGOs. The emergency feeding centre opened in nearby town of Shinshicho and rescued many lives.’ She thinks the causes for the worst famine in her case were disease, loss of assets and the diminishing of her enset production. The community’s informal support system collapsed and except for very few households no one was in a better condition to lend a hand to others.

In early 2007, her husband got sick and became bedridden. As his health deteriorated she decided to sell an ox that had been given to her daughter through an NGO child sponsorship programme, in order to seek medical support. She took her husband to the health centre in town where he received some medical treatment, but after some improvement, he became again very sick. She and her husband agreed to lease 2 *timad* (0.5 ha), a large portion of their land, to a better-off neighbour. The neighbour prepared the underwriting and they leased out the land for six years worth a total of 400 ETB (about 45 USD at that time). As she is illiterate and did not understand the terms and conditions of the agreement, the underwriting remained in the hands of the renter. Two years ago, the renter wanted to plant eucalyptus trees on the land that she used to grow her food crops, but she complained to the local elders and they stopped him from planting the trees. Recently, she has tried to get her land back after she had saved some money from the PSNP transfer. However, the renter refused to give back the land saying the agreement was made for six years. Currently, she has summoned him to a local court and the community elders are investigating the case and she hopes it will be resolved soon. After suffering another setback, her husband passed away during early 2008.

During the crisis, it had become impossible to get food as the prices increased and relatives also stopped supporting her. The situation became even more complicated when she contracted malaria. She was able to receive free malaria treatment at the local health centre. Later, her daughter also fell sick. After many days without food, her body had started swelling particularly her face and legs. When she went and presented her case to the local authorities they admitted her daughter to the emergency feeding programme but rejected her as being too old to get emergency support that was targeting mostly children under five and pregnant and lactating women. When she heard that there were *ferenjjs* (Western aid workers) helping people like her in town, she went to seek support. When the emergency aid people saw her condition, they put her on a medical treatment and feeding programme. After some time she showed impressive progress and was discharged from the treatment along with her daughter. She was given an additional 50 kg wheat ration upon discharge.

Box 4.3: Case study: Economic impact of *green famine* on vulnerable households

Dakute is a 48-year-old man with four children aged between 3 and 15 years. Currently, he lives with his wife, mother and two children in Ashira *kebele*, Kacha-Bira district. Dakute owns 4 *timad* of land (1 ha) and grows enset, sweet potato, potato, cabbage, beans, taro and a few eucalyptus trees. He owns two cows with a young calf. The cows are reared on a shared raising arrangement (*kabbe/koda*),²¹ meaning that he takes care of the cows from better-off households in return for the milk and a share of the offspring. He used to draw much of the household food from his land and some six years back, enset was the staple food crop. However, currently his enset does not support his household food needs as it used to due to the decreasing size of enset harvest due to diseases and over reliance on it. The food drawn from other farm crops only covers his family food needs for 3–4 months a year. For the remaining 8–9 months of the year, his family are dependent on food from the market. For 5–6 months of the year, particularly during the peak seasons of agriculture production such as weeding and harvesting, he works as a daily labourer. He normally wakes up at 6:00 a.m. and starts the journey to the next town and arrives around 7:00 a.m. at the central location where many other labourers are waiting for potential recruiters. If he is lucky, someone will hire him for the day at a wage of 15 ETB (about 1 USD in 2011) depending on the type of work. As his age advances, he explained his frustration as ‘recruiters often look for and prefer younger and physically stronger workers over older looking guys like me’. He explained, ‘the 2007–08 was the most severe hunger and famine in my life. All the local job opportunities had been lost. I vividly recall that after two days without food at home, I lost my consciousness and become somehow crazy. There was just nothing to give to my children and I was scared that I was going to lose them to death. As a result I have sent away two of my daughters to a better-off household in the nearby town of Shinshicho. It was better to give away your kids to someone who takes care of them than watching them hungry. After that, I rented out half of my land for 100 ETB (about 12 USD at the time) per year for a total of four years to a better-off person in the village. It was the only thing I could do at that moment and it did help me to feed and save my family and overcome the most difficult time. However, renting out half of my land put me in a very difficult situation after the crisis time is over. Recently, my older son has gone to the newly established sugar cane plantation in the west and I hope he will be able to earn some money and support us.’

²¹ Widely practised arrangements in Kambata society.

The case studies above show how leasing out land, while it helps poor households to get through the worst period of the famine, increases their vulnerability to future shocks and crises. The life story in Box 4.2 also sheds light on the dilemma and challenges that external actors cause during the targeting process of vulnerable groups in a food crisis situation. As happened in this case, interventions that target ‘vulnerable groups’ overlook the fact that everyone in food-insecure households need assistance, especially during food crises – but even in poor households during ‘normal’ times. Further, the recovery from a famine situation is a complicated and long process that requires support from outside and within the household. Coping strategies deployed by households during a food crisis have a direct relation to vulnerability; in other words, it is not the actual shock that makes them vulnerable but the inability of households to absorb the shock and bounce back.

4.8.3 Malnutrition impact

As noted earlier, one of the coping strategies adopted by both the affected and non-affected households during the *green famine* is to change the consumption patterns. This includes reducing consumption, going without food for longer than usual and relying more on cheaper food sources. Many households used this option and relied heavily on consumption of enset-based food sources such as *kocho* and *hammicho* without supplementing with other protein sources. However, coping with food shortage and famine by increasing their dependence on enset-based foods has had a wider implication for the health and well-being of the households, particularly of children and pregnant and lactating women. Brandt *et al.* (1997: 49) argued the significance of the presence of protein-rich foods to balance the nutritional needs of households in enset-dependent areas and expressed concern if such balance is not maintained:

A diet with a large proportion of enset may require the addition of a higher protein source than beans, which is why high-protein animal products are so important in this [enset-based farming] system. A serious concern in enset producing regions is that as population density or poverty increases, the opposite may be occurring – consumption of *kocho* increases while consumption of animal products decreases.

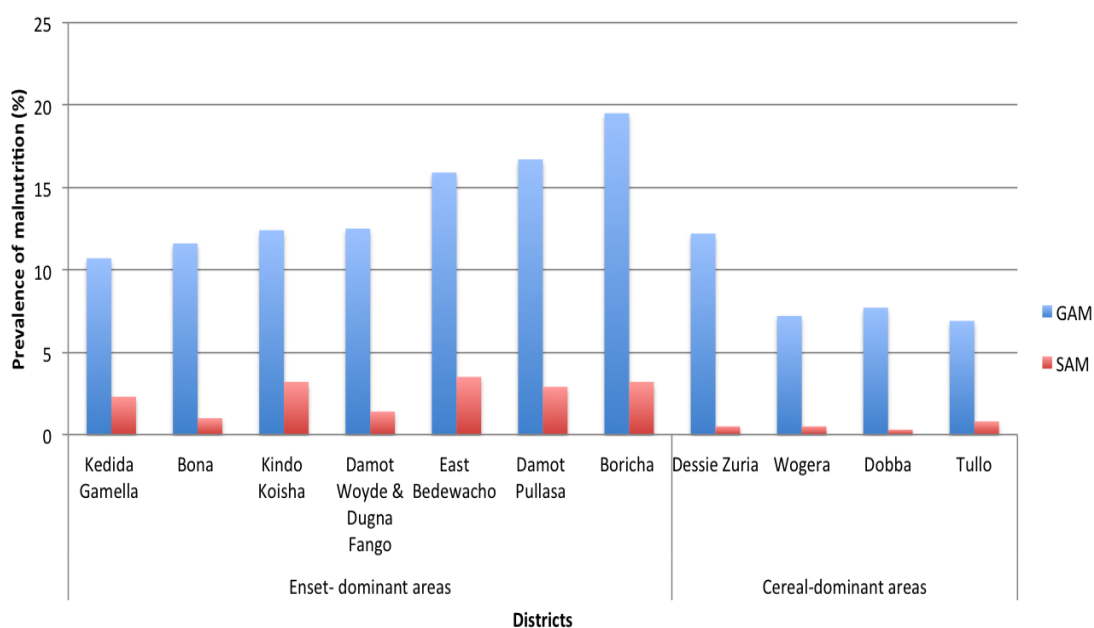
In a similar manner, as most of the poor households have already disposed of or lost their livestock due to recurrent food shortages, their access to milk, cheese, butter and other dairy products that usually supplement the enset food is greatly reduced. As a result, many households, particularly the poor and vulnerable households had few options left in their daily

food intake to complement *kocho/hammicho* with protein-rich foods. Such a dire shortage leaves these households with no option but to consume *kocho* alone as their sole diet. As noted earlier, although they produce higher energy per hectare than cereals, enset-based foods have a very poor record in their protein content. The Ethiopian Institute of Nutrition (ENI) 1981 cited in Dougherty (2002: 123) estimated that only '12-gram protein can be obtained from a kg of dry processed enset compared to 100 gram protein per kg of dry maize'.

Extensive and frequent consumption of enset alone contributes to the weakening of people's immune system and makes them vulnerable to diseases and malnutrition. This trend of increasing malnutrition has been documented in nutrition surveys undertaken by various NGOs since 2003 in the enset-based livelihood zones. A senior food security expert who was part of the coordination team of the UNOCHA emergency response in the study area during the *green famine* in 2003 pointed out the strong relationship between frequent consumption of only enset-driven foods and the occurrence of malnutrition:

'Despite it being an important food source, enset does have its deficiency. Enset has a very poor nutritional value if consumed alone. As other sources were exhausted, many poor households turned to enset and its effect was clearly visible during the 2003 *green famine* time in Sidama, Gedeo, Kambata, Hadiya, Wolita areas, where you could see a green surrounding but when you go inside, you can find children who are extremely hungry, with bloated belly and swollen feet' (KI-AA/UN-FAO/FSE/06/09/2011).

However, it should be noted that the impact of malnutrition is socially differentiated and affects certain demographic and age groups (children, pregnant and lactating women) more than other groups of the community (Young and Jaspars 2006). During the *green famine* period acute malnutrition was quite widespread in the enset-dominant livelihood zones, with some cases beyond WHO emergency thresholds. Figure 4.3 shows the findings from selected nutrition surveys conducted during the peak of the 2008 *green famine* across different livelihood settings in Ethiopia. As can be seen, the prevalence of GAM and SAM is considerably higher in enset-dominant livelihood zones compared to the cereal-dominant areas of Oromia and Amhara regions. In the case of East Bedewecho, Damot Pullasa and Boricha districts in SNNPR, the GAM and SAM rates have surpassed the WHO thresholds. The first two districts are neighbours to the study area (30 km away) and the third is located in Sidama zone (see Figure 2.1).

Figure 4.3: Various nutrition survey results, Ethiopia, April–June 2008

Source: ENCU (2008:1)

In response to the prevalence of malnutrition and reduce mortality risks, a large number of international humanitarian agencies, UNICEF, WHO, WFP, and the government undertook large-scale nutrition treatment interventions. The WFP supported by providing a food ration for Targeted Supplementary Feeding Programmes (TSFP) for those ‘moderately’ malnourished children and PLW. Table 4.5 shows the amount of specialised nutritious food distributed over the period of six months for TSFP in Ethiopia.

Table 4.5: WFP TSF food dispatches per region, January–June 2008

Region	Beneficiary category			Food distributed in MT		
	Under 5	PLW	Total	Under 5	PLW	Total MT
Afar	35,414	16,665	52,079	986.5	464.2	1,450.7
Amhara	77,415	36,431	113,846	2,156.5	1,014.8	3,171.3
B/Gumuz	5,033	2,369	7,402	140.2	66.0	206.2
Dire Dawa	842	471	1,312	23.5	13.1	36.6
Gambela	2,872	1,351	4,223	80.0	37.6	117.6
Hareri	1,440	678	2,117	40.1	18.9	59.0
Oromia	110,929	52,202	163,130	3,090.0	1,454.1	4,544.2
SNNPR	245,081	115,332	360,414	6,827.0	3,212.7	10,039.7
Tigray	53,128	25,001	78,129	1,479.9	696.4	2,176.4
Somali	36,169	17,020	53,189	1,007.5	474.1	1,481.6
Total	568,322	267,520	835,842	15,831.2	7,452.0	23,283.2

Source: ENCU 2008:10.

A quick glance at the food TSFP distribution data in Table 4.5 indicates that more people required nutritional emergency support in SNNPR than in the other regions. It also suggests that the problem of hunger and malnutrition was widespread across the country in 2008. Further, the figures also confirm the malnutrition was quite serious and highlights the *green famine* theory in SNNPR as nearly 50 per cent of the treatment resources were allocated compared to other regions.

4.9 Conclusions

Despite impressive efforts made to understand the causes of famine and alleviate famine occurrence, the concept of famine is still contested. In Ethiopia, famine is conventionally understood amongst the experts and policy-makers as an extreme event of food crisis leading to higher than normal mortality rates. However, famine-affected people have different views. For Kambata people, hunger is regarded as a short-term food shortage that happens due to various factors that disrupt the process of agricultural production. However, they do not categorise any seasonal or normal food shortage as hunger.

In a similar manner, Kambata people explain that famine is a sequenced process and there are a series of stages that take place before an actual famine happens. There is a clear boundary between more general conditions of famine and hunger. They differentiate between a 'killing' and a 'swelling' famine. Local people have their own taxonomy of hunger/famine conditions, which depends on tracking a variety of indicators. This sophisticated system for understanding the different stages of hunger leading to famine is mostly ignored by aid planners, even though it is obviously of value in crafting more effective responses to *green famine*.

The causes of hunger and famine in general are mainly associated with natural factors such as drought and rain failure and demographic (neo-Malthusian) factors. The causes of *green famine* are no exception from such thinking, particularly among those in policy circles. This chapter argued that *green famine* results from a web of complex and intertwined natural, political, policy-related, socio-economic and demographic factors. The recurrence of policy-related and natural shocks significantly affected the asset base of households and as a result many households had already been living in a state of chronic vulnerability. The poor understanding of policy-makers and other actors of the local livelihood conditions and the growing acute and chronic vulnerability in the enset-dominant livelihood zones was also a factor contributing to the occurrence of *green famine*.

The occurrence of *green famine* reinforces the significance of the *entitlement approach* in understanding the causes of famine. People starve when their different sets of entitlements fail due to various factors. Different shocks have affected all four sets of entitlements of people in the study area and have subsequently exposed them to the *green famine*. This also highlights the importance of understanding various sources of vulnerability that push people into hunger and famine.

Progressive livelihood vulnerability pushed many households to the edge and exposed them to the impending shocks. As a result, the natural (climate-related), and market-related factors have played a trigger role in the occurrence of *green famine*. More specifically, *green famine* was triggered by the occurrence of *belg* rain failure, price hikes in food commodities, and failure of sweet potato production due to diseases. Further, response failure at the zone, regional and federal government levels to acknowledge the existence of food crisis and *green famine* in the ethnic minority and politically less powerful region of the country exacerbated the situation. The occurrence of *green famine* caused wider economic, nutritional and social impacts and effects on the well-being of current and future generations in the study area. However, the impacts of *green famine* vary widely according to the type of household livelihood strategy, wealth category, and demographic group, social and cultural background.

The next chapter discusses the trends in livelihood vulnerability, identifies sources of livelihood risk and vulnerability and which livelihoods are the most vulnerable to food insecurity and future *green famine* in the area.

CHAPTER 5

Already at a tipping point? Vulnerability to food insecurity and hunger in enset-dominant livelihood zones in southern Ethiopia

5.1 Introduction

Vulnerability in the Kambata-Tembaro Zone is increasing and livelihoods are becoming more insecure, as the occurrence of three *green famines* within the space of a 15-year period suggests. This chapter identifies different livelihood types evident in the study area across different wealth categories. It also examines the types of risks and vulnerability factors affecting different livelihoods and their trends over time. Further, it investigates which livelihoods are becoming more or less vulnerable to different shocks and are susceptible to food insecurity and *green famine*. Finally, it examines the types of responses undertaken by households against the prevailing livelihood crises and how these responses are playing a role in the resilience or vulnerability of livelihoods.

5.2 Overview of livelihood system in the study area

As discussed in Chapter 2, the K-T administrative zone falls under enset-dominant livelihood system of southern Ethiopia and most parts of the three *woredas* under investigation are categorised as Hadiya-Kambata cereal and enset livelihood zone (DPPC 2005b: 1). In general, the enset-based livelihood system is relatively resilient and food-secure compared to cereal-based areas. However, over the last two decades or so, the resilience of the enset-based livelihood system has weakened due to various factors (Dessalegn 1996, 2007; Mulugeta 2007) in turn compromising the food security of many households.

Various livelihood studies indicate that households are in an unceasing struggle to build and secure their livelihoods by using diverse existing options and resources in their specific context and settings. Devereux (1999: 8) argued that ‘poor households everywhere survive by pursuing a mix of livelihood strategies that aimed at increasing income and assets, spreading and minimizing risks and preventing destitution and death’. During this study, community focus group discussions were undertaken in six *kebeles* to understand different types of livelihood strategies that households are involved in. The community discussions and consultations

indicated that livelihoods that are based on a mix of farming and herding (mixed farming), is the dominant type of livelihoods across the three districts, and households pursue a range of additional activities both on and off-farm. Respondents also indicated that due to persistent livelihood crises there is an emergent distinct livelihood category, which is the undertaking of certain types of activities. For instance, in the past only a few groups used to be engaged as full-time daily labourers (labour-based livelihood activities) in towns and rural areas, but now there are a large number of people who are actively pursuing this activity year round. Similarly, selling fuel woods and fresh grass (trade-based livelihood activities) was a supporting type of livelihood strategy for a few poor and very poor groups. However, this group is currently growing in size and pursuing these activities actively. Significant variations were observed regarding the importance of different livelihood strategies across the three *woredas*. As can be seen in Table 5.1, for instance, in Kacha-Bira *woreda* daily labour was ranked as the second most important livelihood strategy whereas in Kadida-Gamela and Doyo-Gena, it was ranked fourth. Similarly, international migration was the second most important livelihood strategy in Doyo-Gena *woreda* but it is reported as less important in Kacha-Bira and Kadida-Gamela *woredas* respectively. The reasons for this variation are discussed in Chapter 2 and in section 5.5 below.

Table 5.1: Different livelihood types in the study area (ranked according to their importance)

	<i>Woreda</i>		
	Kacha-Bira	Kadida-Gamela	Doyo-Gena
Livelihood activities	Mixed farming	Mixed farming	Mixed farming
	Daily labouring	Cash crops (coffee and eucalyptus) production	International migration
	Cash crops (coffee and eucalyptus) production	Seasonal migration	Seasonal migration
	Seasonal migration	Daily labouring	Daily labouring
	Caste-based occupations	International migration	Eucalyptus production
	Trade-based occupations	Caste-based occupations	Caste-based occupations
	International migration	Trade-based occupations	Trade-based occupations

Source: Author's fieldwork, 2011.

Community members were asked to identify different types of risks and vulnerability factors that are impeding households' efforts in ensuring their food security and eroding their livelihood resilience over time. The results indicated that households with different types of livelihood categories have experienced different types of covariate and idiosyncratic risks and vulnerability factors in the study area. In general, these factors could be broadly categorised as natural, socio-economic and political or policy oriented (see Table 5.2).

Table 5.2: Types of risks for different livelihood groups according to community members

Livelihood category	Types of risk factors	Ranked in order of importance
Mixed farming	Rainfall variability and failures (drought)	1
	Input price hike	2
	Land shortage	3
	Market uncertainty	4
	Restricted movement to other parts of the country in search of employment	5
	Outstanding debts from the past (mostly input related)	6
	Occurrence of disease and pests (human, livestock and crop)	7
Daily labouring	Limited job opportunities	1
	Seasonality	2
	Growing competition for local labour employment	2
	Rain failure and drought	3
	Food price hike	4
Pottery	Restricted access to production material (proper clay)	1
	Lower or no demand for products during lean seasons	2
	Taste and preference changing away from earth-made materials due to emergence of plastic products	3
Blacksmithing	Material cost	1
	Decreasing demand particularly during drought seasons	2
	Seasonality of demand	3
Tanning	Shortage of materials (hides and skins)	1
	Decreasing demand	2
Fuel wood and fresh grass selling	Lack of access to resources	1
	Lower demand during food crises	2
	Increasing food prices	3

Source: Author's fieldwork, 2011.

Table 5.2 shows disaggregated different risk and vulnerability factors affecting diverse livelihoods in the study area. Rainfall variability and failure, often described by peasants as 'drought', is the most important shock that is increasing the vulnerability of households engaged in mixed farming livelihoods to seasonal food insecurity and hunger. The importance of rainfall variability or drought, as described by different actors, is not surprising as the livelihood activities in the area revolve around rain-fed agriculture and any factor that affects this sector has a direct knock-on effect on livelihoods. However, it should be noted that the concept of drought is different compare to lowland and drought prone areas that often confronted with actual drought. In this context, the timely arrival and cessation of rainfall critically important to maintain the production calendar and ensuring availability of food at household level (see Chapter 2). The second main vulnerability factor that is affecting households in their efforts is the surging price of agricultural inputs. Households have indicated that the increasing prices of chemical fertilisers and seeds, in particular, are a significant risk and vulnerability factor as inputs are unaffordable for the middle-income and

poor groups. As a result, households fail to access sufficient inputs to cultivate their land and hence produce insufficient outputs from their farms. Trends on agricultural input prices are discussed in detail in Chapter 7. Additionally, general land shortage due to rapidly growing population, market uncertainty, restricted movements to other parts of the country in search of employment (see Chapter 4), indebtedness and seasonal disease outbreaks for humans (malaria, acute watery diarrhoea), livestock (Trypanosomiasis, and Anthrax) crops (coffee berry disease, enset wilt, wheat rust, sweet potato butterfly) are sources of vulnerability among households dependent on mixed farming livelihood (DPPC 2005b: 7).

As mentioned earlier, a growing number of households depend on labour-based occupations mainly on daily labouring as their main income source, due to renting out their land to better-off households, lack of enset on their farms or because young couples have very small plots of land, or people are returnees from other regions due to conflict, etc. For these households who are pursuing labour-based livelihoods, employment opportunities are very limited, particularly during failed rains when the availability decreases significantly as most of the daily labour jobs are agriculture oriented. Seasonality is also mentioned as another important source of livelihood vulnerability. And as many households, particularly the young, are resorting to daily labour activities, there is growing competition. Failure of rain not only may cause shortages of employment opportunities, but also contributes to increasing market food prices. As daily labourers are mainly dependent on markets for their daily food, the failure of rain has a 'double-edged sword effect' on their food security.

Among the Kambata ethnic groups, the Fuga clan are considered a lower caste group, who have been subjected to discrimination and unfair treatment for many years, despite their significant contribution to their society through their distinctive skills (Pankhurst 2001; Wolde-Selassie 2001). Studies by Belachew (2001) and Wolde-Selassie (2001: 67) provided some insights about the unfair treatment, socially constructed stereotypes and discrimination of the Fuga attributed to their pursuit of 'different livelihood strategy' from dominantly agriculture-based livelihoods of the majority of the Kambata clans. Despite some improvements, the Fuga are denied equal access and opportunities of education and involvement in social and political activities in the area. They pursue unique and specialised livelihood activities such as pottery, tannery, blacksmithing, traditional healing, public announcement and circumcision. These are smaller groups but they are spread across all districts. As farming is not their primary livelihood activity, historically these groups often own smaller plots of unfertile land. Despite their unique livelihood system, they are also involved in different agricultural activities. A focus

group discussion with the community representatives and case studies with households from the Fuga clan indicated that their livelihood is severely strained. For households engaged in pottery-making, limited access to raw materials such as clay and wild grass, decreasing demand for their products during times of crisis and hunger, and changing customer preferences towards plastic-based products are the major vulnerability factors. Similarly, the blacksmiths indicated that increasing costs of scrap metals, decreasing demand for their products during food crises and the seasonality of their work are main sources of vulnerability. The tanners are a very small group facing challenges due to shortage of materials (hides and skins) and decreasing demand for their products as people start depending more on factory-made materials. They indicated that in recent years, the price of hides and skins has increased significantly due to a growing number of traders at local markets. 'People are willing to sell their products to the traders who offer higher prices than to us; hence we are not able to compete with them and this is seriously affecting our business.' In the past, there was only one local hides and skins trader, but now there are more than ten coming from neighbouring towns. The increasing demand for hides and skins is due to a booming leather sector in Ethiopia as local and global firms are increasingly involved and this opens up opportunities to small-scale suppliers from local markets.

Lack of access to resources due to decreasing communal lands, lower market demand during failed rainy seasons and increasing food prices are the major sources of livelihood shocks for those who are engaged in the sale of fresh grass and fuel woods. In the past, these groups collected grass and fuel woods from communal lands and forest areas. Now that these communal lands are not available any more as they were divided and given to demobilised soldiers and displaced returnee households after 1991 by *kebele* authorities, access to these resources has become a major challenge for fresh grass and fuel wood sellers. (See Box 5.4) for more details on shocks facing households whose livelihood is based on pottery production.

Table 5.3: Prices for pottery products before and during the *green famine* period

Clay products	2006–07 Average price (in birr)	2007–08 Average price (in birr)
Water pot	8	4
Coffee pot	8	3
Saucepan	10	5
Earthen tripod oven	3	1

Source: Author's fieldwork, 2011.

5.2.1 Livelihood strategies across wealth categories in the study area

Different wealth categories that exist in the study area are discussed in detail in Chapter 2. Focus group discussions with different community groups indicated that households from different wealth categories are engaged in different types of livelihood strategies. The results indicated that the majority of households from the better-off and middle-wealth categories tend to engage in more specialised and less diversified livelihood activities. Further, they produce more cash and cereal crops (coffee and eucalyptus) compared to poor and destitute households. In contrast, the majority of households from poor and destitute wealth categories are engaged in diverse livelihood activities such as seasonal migration, daily labouring, trade-based activities, and caste-based activities to make ends meet. As discussed earlier, caste-based occupations (pottery, tanning and blacksmithing) are specialised activities undertaken by certain clan members of the Kambata ethnic groups. Table 5.4 illustrates livelihood types/strategies undertaken across wealth categories in the study area.

Table 5.4: Livelihood types across wealth categories in the study area

Livelihood types	Wealth categories			
	Better-off	Middle	Poor	Destitute
Mixed farming	✓	✓	✓	✓
Migration- based (seasonal and local migration)		✓	✓	✓
Daily labouring			✓	✓
Caste-based occupations			✓	✓
Cash crops (coffee and eucalyptus)	✓	✓	✓	
International migration based	✓	✓		
Fuel woods and grass selling			✓	✓

Source: Author's fieldwork, 2011.

In-depth case studies with households from different livelihood and wealth categories highlighted the main sources of household income across the study area. Households from better-off and middle-wealth categories and whose main livelihood is based on mixed farming and migration (seasonal and international), drawn their income from sales of agriculture products (coffee, teff, wheat, enset products, eucalyptus, livestock and livestock products), migration and remittances (see Boxes 5.1 and 5.6). In contrast, for households from poor and destitute wealth groups whose livelihood is mainly based on daily labour, selling of grass and firewood and caste-based activities, their income draws from casual employment, sale of their products, PSNP transfers and other sources (see Boxes 4.2 and 4.3). A baseline study by the Livelihoods Integration Unit (LIU) of the Disaster Risk Management and Food Security Sector (DRMFSS) of the Ministry of Agriculture (MoA) using the Household Economy Analysis (HEA)

approach in Kacha-Bira *woreda* in 2003–04 indicated similar results to the findings of the current study (see Table 5.5).

Table 5.5: Household sources of income in Kacha-Bira *woreda* across wealth categories

Sources of income	Wealth categories and estimated level of income in percent			
	Better-off	Middle	Poor	Very Poor
Sales of crops	58%	55%	20%	18%
Petty trade	35%	35%	35%	12%
Sales of livestock			4%	
Sales of livestock products	7%	10%	11%	
Casual employment			30%	68%
Self-employment				2%

Source: DPPC (2005b: 4).

5.2.2 Changes in wealth groups and indicators in the study area over time

As discussed in Chapter 2, during a wealth-ranking exercise, community representatives divided households in their communities into four types of wealth categories according to locally set indicators across the study area. Additionally, the community representatives were asked: ‘What are the main wealth groups in your locality – currently [2011], five and ten years ago? What proportions of your community belongs to these groups?’ The community responses indicated that there had been significant changes in the wealth groups over the last decade, although some variations were observed across the three *woredas*. In Kacha-Bira, both men and women divided their communities into three wealth groups currently, compared to four groups five and ten years ago. They indicated that in the past there were few and easily identifiable destitute groups in their community, but currently these groups are already included in the PSNP and their economic status is improved and subsequently they moved up to the poor groups. However, they reiterated that more and more people who are not targeted by the PSNP are becoming poor and sliding into destitution from the middle class over time. The following comment illustrates this claim:

‘The poor group is becoming more destitute since the incidence of *green famine* in 2008. Most of these groups either have disposed their productive assets including land and recovering and rebuilding these assets will take many years’ (FG_KB/AS-CEM/ 12/02/2011).

‘I think we are becoming incapable and less resilient “*eyaku yoneebaa*” literally means “Our resilience has weakened”. For instance, this year [2011] the *belg* rain was delayed and many people were on the verge of starvation because “*ko’rune shaashefage*” means “our belt is

loose". We are not strong enough to fend off the effects of shocks because we don't have any more livestock assets as we used to have. We don't produce surplus and store food for the future, we live simply on daily basis. We do not have an ability to save, because it is not enough to save' (FG_KG/AD-CEW/24/02/2011).

In contrast to Kacha-Bira *woreda*, Kadida-Gamela and Doyo-Gena *woredas* each currently have four wealth groups. There are more destitute people now than five and ten years ago. The respondents signalled that in the past there was a clear cut-off in wealth groups, and community members were poor but very few were destitute. However, over the last ten years or so this trend has been reversed and more people from the middle and poor levels are sliding into the poor and destitute group. In addition, the community elders were asked if there have been changes in social and economic characteristics of each wealth group over time, particularly since the occurrence of the *green famine* of 2007–08. They indicated the following:

'In the past, having a large number of enset trees in one's backyard used to be a good indicator of one's wealth. However, currently people value eucalyptus tree more than enset due to its market value' (FG-KB/AS-CEW/12/02/2011).

'Sending a member of a household to South Africa has become an important indicator of wealth and status, thus if you are able to do so, you are considered wealthy' (FG_KB/AS-CEM/12/02/2011).

'The changing value of farm produce is making people rich or poor in a short time. These days the price of agricultural produce has increased significantly while the cost of production also has surged disturbingly. So, those who have both land and enough capital to invest in their farm could suddenly become richer over a short period of time' (FG_KG/AD-CEM/24/02/2011).

Respondents were asked how many months in a year each wealth group would face food shortage. Here, food shortage is defined in purely descriptive form as a gap in the food requirements of a household. The answers were similar across the three districts. According to the respondents the better-off households may not necessarily face food shortages during the entire year. They may run out of food stocks produced from their land, but during such circumstances they can sell small ruminants and purchase food. The middle-wealth households group may face food shortage for on average 4–5 months. The poor group faces food shortages for 6–8 months of the year, whereas destitute households face food shortages

almost the entire year, regardless of changes in weather conditions and food prices at the markets.

5.2.3 Livelihood vulnerability and changes

In order to understand and investigate the livelihoods in enset-dominant areas in general and in K-T zone in particular, different actors in the region were asked whether, overall, livelihoods were becoming more or less vulnerable to hunger and periodic famines, or if there was no change at all. Key informant interviews were conducted with senior experts of food security and livelihoods working at academic institutions, research centres and the UN agencies. These key informants who have significant knowledge about the region in general and had worked in the study area for many years. They indicated that the livelihoods in southern Ethiopia, particularly in the enset-dominant livelihood zones, have seen a very rapid change over time and become increasingly vulnerable to food insecurity and periodic famines for a variety of reasons. Overall, most respondents shared that this historically resilient and complex livelihood system has lost its strength against different chains of shocks that have been occurring over time. The following quotes reflect the prevalent situation of livelihood vulnerability, particularly in enset-dominant livelihood zones in the study region:

‘From my experience and engagement in various development and emergency programmes in southern Ethiopia, the livelihoods in southern Ethiopia are becoming more and more vulnerable over time. Various factors contribute to the vulnerability of livelihoods in the area. We can look into three categories such as demographic, natural (climatic) and policy related’ (KI_AA/UN-OCHA/12/08/2011).

‘I don’t think they are becoming resilient because in the last ten years there have been lots of emergency and development interventions in the region. Despite all these initiatives, despite all these efforts, you see the capacity of livelihoods to absorb shocks is still very limited. I think livelihoods have lost their resilience. In the past, livelihoods used to cope with shocks without external intervention, but recently even a single season rain failure is causing havoc and turning to emergency’ (KI_HA/UN-WFP/03/05/2011).

‘Livelihoods, particularly in areas where I have carried out my research, particularly in enset–cereal livelihood zones, the livelihoods are becoming more vulnerable to food insecurity and periodic hunger over time due to multiple factors’ (KI-HA/HU-AC-1/05/05/2011).

These responses indicate that livelihoods in the enset-based livelihood system are becoming less secure, less resilient and more vulnerable. As discussed in Chapter 4, various factors such as restrictive labour movement, agricultural input prices, land shortages, dwindling enset production due to bacterial wilt, poor extension services and over-reliance and severe land shortages have all contributed to the long decline in livelihoods in K-T zone. In a nutshell, the sources of vulnerability have two dimensions: socio-economic and policy-oriented.

Table 5.6 below provides a snapshot of the state of food insecurity in the study area. It can be argued that this condition is a reflection of stressed livelihood systems. As the figures from the UNOCHA emergency food security assessment undertaken during the 2008 *green famine* indicate, a significant number of people were affected in K-T zone. Of the total 783,610 people in the zone, 26 per cent faced extreme food shortage and survived through emergency food relief and 13 per cent through the regular government PSNP that has targeted chronically food insecure households in chronically food insecure *woredas* in different regions of the country since 2005. The PSNP is discussed in detail in Chapter 7. Further, the assessment report estimated that 42,000 people (5 per cent) were at risk of a deterioration of the situation and possibly needed emergency support. Of the seven districts in the zone, Kacha-Bira, Kadida-Gamela and Hadero-Tunto suffered the largest number of people affected by the *green famine*. Thus, livelihoods in K-T zone are growing more insecure, vulnerability is increasing and it is likely that another *green famine* will occur in the future. In order to better understand this state of affairs, the following section provides a detailed assessment of enset-based livelihoods and explains the role and contribution of enset in this zone.

Table 5.6: Breakdown of total population in K-T zone of those requiring emergency relief, at risk of emergency and existing PSNP beneficiaries (BNFs) during the *green famine* period, May 2008

District	Total population	PSNP BNFs	Affected population	Required emergency aid (affected + PSNP BNFs)	Population at risk of emergency	% of population in PSNP	% of population in emergency response	% of population in PSNP and requiring emergency response
Tembaro	124,980	24,210	56,241	32,031	12,500	19%	26%	45%
Kadida-Gamela	111,535	15,564	50,191	34,627	5,000	14%	31%	45%
Hadero-Tunto	103,750	15,346	46,688	31,342	7,500	15%	30%	45%
Kacha-Bira	149,000	18,498	67,050	48,552	5,000	12%	32%	44%
Damboya	97,505	14,966	29,252	14,286	4,000	15%	15%	30%
Angecha	100,940	8,470	30,282	21,812	4,000	8%	22%	30%
Doyo-Gena	95,900	4,671	28,770	24,099	4,000	5%	25%	30%
Total	783,610	101,725	308,474	206,749	42,000	13%	26%	39%

Note: Some discrepancy observed in the total population figures of K-T zone. According to the data from the Regional Bureau of Finance and Economic Development, the total estimated population projection based on the 2007 national census for K-T zone in 2008 is 723,558 people. Thus, this data was based on the figures obtained from the K-T zone office of agriculture and rural development and UNOCHA assessment reports. This difference could be due to an error of population projection.

Source: UN-OCHA 2011a; K-T Zone BoARD 2011a

5.3 Introduction to the enset tree in enset-based livelihood system

This section introduces the enset tree in enset-based livelihood system, its role and contribution to household food security in the study area. It also investigates factors affecting the resilience of the enset-based livelihood system and implications for the increasing vulnerability to food crises and periodic *green famines*.

5.3.1 Enset tree

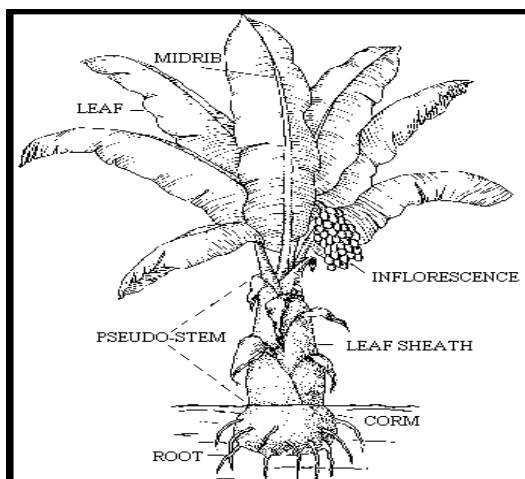
Enset, often referred to as false banana (*Ensete ventricosum*), is an indigenous food crop that traditionally grows in southern, south-western and some eastern parts of Ethiopia (See Fig. 5.1). It is a multi-purpose tree that is consumed by an estimated 12–15²² million people in the country (Dessalegn 1996; Brandt *et al.* 1997; Tadesse 2002). As noted earlier, the study area falls within the variously described ‘enset based farming system/culture’ (Dessalegn 2007: 13), ‘enset complex’ (Brandt 1996: 37) or ‘enset–cereal livelihood zone’ (DPPC 2005a: 23). Enset is a culturally and socially valued staple food crop among the Sidama, Gedeo, Wolita, Hadiya, Kambata, Guraghe, Dorze, and other ethnic groups in the region. Historically, this farming system has been known for supporting a larger population density compared to cereal-based livelihood zones yet it has been relatively hunger- and famine-free and resilient against shocks and food crises (Dessalegn 1996, 2007; Seifu 1996; Brandt *et al.* 1997; Tadesse 2002; Mulugeta 2007).

Enset is planted through a vegetative propagation process and the suckers/seedlings are transplanted from the nursery to the main field after one or two years. Different studies suggest that a corm/underground stem of a single mother plant aged 3–6 years could yield 100–150 suckers/seedlings (Seifu 1996: 206). The nursery is prepared in the backyard, very close to the tukul (hamlet) where it is closely and carefully managed through application of manure, compost and ashes, while older trees are transplanted further away from the tukul and are intercropped with maize, green cabbage or haricot beans (Dessalegn 1996: 88). Enset has a longer maturity period (up to six years) compared to cereals, but it can be harvested and

²² The exact number of people who depend on enset is still contested. Some studies (e.g. Tsedeke *et al.* 1996) estimate that enset supports 20 percent of Ethiopia’s population.

consumed at any stage of growth starting from its second year in an extreme hunger situation and from its third year during a moderate food shortage (Brandt *et al.* 1997: 44). As in other enset-dependent areas, in Kambata women undertake the lion's share of enset processing, marketing and preparing. It is very labour-intensive so the women often pool their labour as a group or hire others to perform the processing. Once it is pulverised and chopped finely it is buried in a storage pit lined with fresh enset leaves for fermentation (Seifu 1996; Brandt *et al.* 1997; Dougherty 2002). Chernet and Shank (1996) noted that once enset is processed and stored in a pit, it serves as 'a living refrigerator', which households can tap into at any time to cover their food and energy needs. If a household decides to store it for a very long period, they can easily take it out of the pit, clean and replace the lining of the pit with fresh leaves and store it again. Like a good wine, the quality increases with the duration it remains in fermentation.

Figure 5.1: The enset plant



Top: Enset and coffee farm. *Centre:* Enset seedlings and tress around the house (photography by Author 2011). *Bottom:* Parts of the enset plant (from Brandt *et al.* 1997: 3).

5.3.2 Enset as a strategic household food reserve against hunger and famine

Various empirical studies have indicated that enset produces significantly higher calories per hectare per year than cereals. Alemu and Sandford 1991 (quoted in Pankhurst 1996: 76) in their assessment in North Omo area estimated that ‘the average yield of enset per hectare per year is equal to 66–230 quintals, equivalent in terms of energy to 39 to 137 quintals of grain’. Similar to this, Tadesse (2002: 166), based on his work in the Gedeo zone, estimated that having ‘42 mature enset trees can cover a yearly food need for a household of seven members’. Dessalegn Rahmato is one of the leading and pioneer researchers in the country on the role of enset farming systems in southern Ethiopia. In his study, (Dessalegn 1992: 35) compared its significance as: ‘Enset is to the Wolita diet what rice is to Asians’. In addition to being a strategic household food reserve, enset also has a strong cultural significance among the Kambata people. The size of an enset plot (number of enset trees) in the backyard indicates wealth and social status (as honourable man/household) in the community (see Chapter 2). The Kambata people appreciate the multiple uses and capacity of enset (*wesse*) and express it through a song: ‘*wesse wesse, haberchuukin merraba, hamichukin buskuuta, qaanchichukin musmarra, wassichukin injerra*’ (literally translated as: ‘enset, your leaf is a handkerchief, the corm is like a biscuit, the fibre is like a nail [for construction], the processed enset is like a pancake’) (personal experience). Similarly a Guraghe (another enset-dependent ethnic group in southern Ethiopia) poem recorded by Strelcyn notes ‘the horse of *Ato Cheggar* (i.e. Mr Hunger) broke its leg when it arrived at Guraghe’ (Strelcyn quoted in Pankhurst 1996: 79). To sum up, these quotes and songs clearly highlight the central role of enset as a source of household food security.

Despite deteriorating livelihoods and food insecurity in the study area, households with a good reserve of enset in their yard have successfully kept the threat of hunger and periodic famines at bay (see Box 5.1). As noted earlier, enset is a strategic food reserve and a safety net against different shocks for all households across all wealth categories. However, it should be noted that the significance of enset as a source of food at household level changes according to seasonality, social, and wealth status and availability of supplements, particularly animal products (Pankhurst 1996: 74). In times of good rainfall distribution and better production of cereals and other crops and pasture available, enset becomes a co-staple food and feed source for both people and livestock respectively. However, in the face of rain failure and subsequent production failure of cereals and poor availability of pasture and also during lean periods, its importance increases and it becomes a staple source of food and feed. When milk and milk

products are available at a household level, enset becomes a regular food source. The case study in Box 5.1 shows how having a large number of enset trees on its farm helped a household to avoid seasonal hunger and famine.

Box 5.1: Case study: The role of enset in household food security

Ato Shaemelo is a 56-year-old peasant, married with eight children, who resides in Kadida-Gamela *woreda*. Currently, he owns 3 *timad* (0.75 ha) of land and divides his land equally to grow cereals on 0.25 ha, coffee on 0.25 ha and enset on 0.25 ha. He used to own 6 *timad* (1.5 ha) of land, but since 1991 his land size has reduced to 3 *timad* as he had to share half of it with his brother who had been living in the Oromia region and returned to Kadida-Gamela due to ethnic conflict that had erupted following the introduction of ethnic-based regionalisation in the country. His household food supply comes from own production, and his family relies on enset as its staple food crop, supplemented by milk and milk products. He owns a milking cow, a calf and an ox. He revealed that his extended family had never faced serious hunger or food insecurity in his lifetime. The main source of income is drawn from sales of agricultural products, particularly coffee and cereals; the main expenses are for fertiliser, improved seed, school fees and festivities, as well as local burial association contribution fees. He said that the changing rainfall pattern is a main source of shock affecting his agriculture-based livelihood. The increasing price of fertiliser is a main concern and he fears that, if it continues at the current rate, he may not be able to afford it and may be forced to focus on enset and coffee production only.

Enset wilt is another challenge he is facing. He is self-sufficient and food secure according to locally defined indicators, as he possess large area of enset trees in his backyard. When asked what his secret is to being food self-sufficient despite having little land and a large family, he replied 'growing more enset as a source of food and having a good number of coffee trees on my farm as a source of cash'. He explained that enset covers the lion's share of his family's food needs while the income from coffee sales covers all other major expenses that occur in the household. Despite his current situation, he explained that the situation is getting more difficult and that the future seems to be bleak. His argument is based on the growing fragmentation of land and ever-increasing prices of agriculture inputs, particularly fertiliser. He hopes that his children will continue their education and find work somewhere else, and do not need to come back to share the piece of land with him.

5.3.3 Challenges to enset-based livelihood resilience

According to the community members, development agents (DAs), local authorities and researchers, enset production has faced complex and interlinked challenges ranging across natural, demographic, socio-economic and policy-oriented factors, heavily affecting the resilience and productivity of the enset-based livelihood system over the last decade. These are discussed in detail below.

5.3.3.1 Natural factors

The resilience and sturdiness of enset resembles that of a camel in the case of pastoralism. As Tadesse (2002: 75) noted, ‘through its funnel-like leaves, enset collects rainwater towards a barrel-like pseudo-stem’ and conserves its body structure (see Figure 5.1) for longer periods’. Hence, even during drought periods when other cereals easily succumb to drought, enset-can survive and maintain its green and lush appearance. However, enset is susceptible to various diseases and pests. Bacterial wilt disease (*Xanthomonas campestris pv. musacearum*) is a major threat that is seriously affecting enset production (Brandt *et al.* 1997; Tadesse 2002). According to the enset researchers at Areka research centre, bacterial wilt is a primary concern for enset production and it can attack at any stage of its growth, although the scale of damage is greater when it happens at the later stages. This could have serious consequences, particularly for middle-income and poor households who have limited enset trees and could lose their most important food source (Dessalegn 1996: 93). Wilt is a very contagious disease and easily transmits through insect vectors and contaminated tools used for cutting and other purposes. Due to lack of policy attention, any research on enset is at a very early stage and primarily focuses on identification, multiplication and preservation of clones with different attributes such as high yield, disease resistance, early maturing and medicinal value, while the prevalence of the disease is increasing over time (Brandt *et al.* 1997: 2). As a result, thus far the research centres cannot deliver scientific solutions to wilt, except for promoting cultural practices and methods that have already been applied by farmers for many years.²³ Such lack of policy focus towards enset production by policy makers and agricultural research centres is partly due to the overall agricultural policy of the country that focuses on cereals and cash crops. This is discussed in great detail in chapter 7. Given that enset is a perennial crop that takes up to 4–6 years to fully mature, wilt is a threat that discourages many households from

²³ Personal communication with a senior researcher at Areka enset research centre, May 2011.

investing in cultivation and risking losing it all. As a result, many middle-level and poor households are forced to resort to short-maturing cereals rather than enset.

5.3.3.2 Demographic factors

As noted earlier, the enset-based livelihood zones of Ethiopia are historically known for supporting large populations per square kilometre. As a result of a growing population in these areas, the average size of land allocated to enset crop has decreased significantly while the reliance on enset has increased over the last few years. Focus group discussions with communities across three districts indicated that enset production is decreasing in their respective areas over time (Table 5.9). Further, data from the K-T zone Bureau of Agriculture indicated that the average production of enset in Kadida-Gamela has shown a decreasing trend over time (Figures 5.6 and also see Belachew (2001: 165-174). Overall, this situation has created an unbalanced relationship between enset production and the cultivated land size. This trend has been emerging for a long time and is negatively affecting the resilience of the enset farming communities.

5.3.3.3 Policy-related challenges

As noted earlier, enset is a staple and a co-staple food for a large majority of people in southern Ethiopia. However, despite playing such an important role in household food security, enset does not receive the national and international research and policy attention given to other cereals and cash crops (Brandt *et al.* 1997: 2). As a result, the enset tree has been neglected for many years and no intensive research has been conducted on different attributes of the tree. Currently, the only enset research centre in the country (Areka Agricultural Research Centre) is struggling with various challenges including lack of funding and staff shortages. A key informant at the regional agricultural centre has summed up the challenges faced by the overall enset research and production as follows:

‘Enset crop lacks attention at various levels including the regional and national government, international donors and researchers despite its commendable role for household food security. The budget allocated by the Government is very minimal compared to the research budget to cereals and other root and tuber crops. Further, given it is as a regionally specific crop consumed among the minority populations of SNNPR, it lacks attention and focus by the political and policy-making actors at the national level. It can be argued that there is less political will and interest to promote this crop at the national level. The current agricultural and rural development policies of Ethiopia favour cash crops to food crops. The promotion of cash crops like coffee, ginger and

wheat had a negative effect on the cultural value and paradoxically affected as well its food security role. In the international research arena, enset is an “orphan” crop and is not widely known outside Ethiopia’ (KI_HA/SARI-DG/17/05/2011).

Thus, poor policy and research focus towards enset by the central and regional governments has significantly affected the production of enset in the study area. In summary, due to the recurrence of the above factors over time, the enset-based livelihood system in K-T zone has lost its resilience. Other previous researches that have been undertaken in enset-based livelihood zones in SNNPR have shown similar findings. The findings by Dessalegn in Wolita (1992, 1994, 1996, 2007) and by Dougherty in Sidama (2002: 140) have concluded that, ‘the historically enset based resilient livelihood system has lost its capacity and is no longer able to ensure household food security as it once did’.

5.4 Risks and vulnerability factors and their trends

As Chambers (1989) and Ellis (2000) noted, livelihoods are resilient when they are able to cope with various shocks and stresses over time without external intervention and without jeopardising their long-term capacity. Like food insecurity and famine, vulnerability is multidimensional, and thus it is imperative to focus not only on environmental or natural factors such as drought and rainfall conditions but also to look further into other aspects that increase vulnerability, such as ‘social inequalities among different ethnic groups and classes, and struggles over land rights and natural resources’ (Blaikie 1985, cited in Baro and Deubel 2006: 527).

In order to investigate if there have been significant divergences in the perception of livelihood risks and shocks in the study area between communities and government actors, the same questions were posed. Table 5.7 disaggregates perceived livelihood risks and shocks and their importance in terms of effects on livelihoods and overall trends by different actors at different levels in the study area. The actors involved in this research were asked to list the types of shocks affecting the local mixed farming livelihood system. Once completed, they were asked to discuss the overall trend and rank the shocks according to their importance (see Table 5.7).

Table 5.7: Perceived livelihood risks and shocks by different actors at different levels

Respondents	Shocks	No. of times mentioned	Rank according to importance	Perceived trends
Development agents	Change of rainfall pattern, 'drought'	7	1	Increasing
	Increase of agriculture input price	5	2	Increasing
	Reduced soil fertility	1	4	Increasing
	Presence of army worms	1	4	Increasing
	Presence of wheat rust	1	4	No change
	Occurrence of erosion	1	4	Decreasing
Woreda-level technocrats	Change of rainfall pattern	3	1	Increasing
	Decrease of enset production due to disease and population pressure	2	2	Increasing
	Shortage of farmland due to population pressure	1	3	Increasing
Woreda-level experts	Change of rainfall pattern (inadequate and irregular rainfall distribution)	3	1	Increasing
	Shrinkage of land size per household	2	2	Increasing
	Presence of sweet potato butterfly	2	2	Increasing
	Increase of agriculture input price	1	3	Increasing
Zone-level experts	Change of rainfall pattern	2	1	Increasing
	Increase of land shortage	2	1	Increasing
	Increase of agriculture input price	1	2	Increasing
	Presence of plant diseases	1	2	Increasing

Source: Author's fieldwork, 2011.

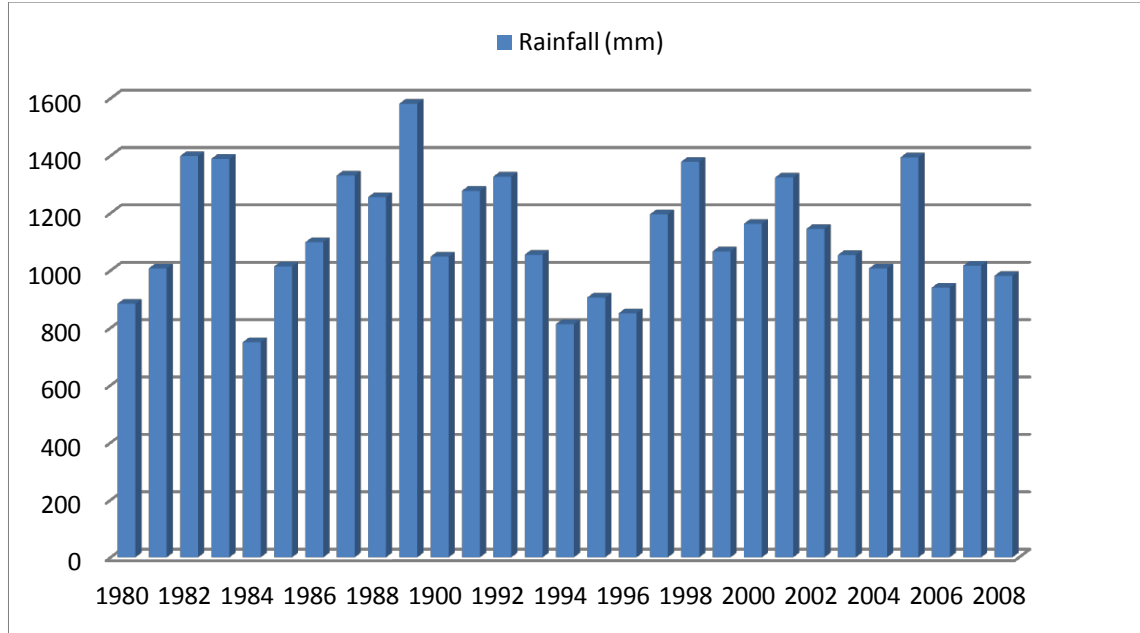
In general, the views of zone, *woreda* and *kebele* actors were similar to the views of the general community in the study area. Of a total of 11 DAs interviewed in all six *kebeles* in the three *woredas*, most claimed that inadequate and irregular rainfall distribution is the main livelihood shock causing vulnerability to food insecurity. Similarly, this have been indicated the most significant shock and source of livelihood vulnerability among all actors in interviews and discussions in this research across all levels of administrative hierarchy.

In order to test if these claims and perceptions are supported by meteorological observation, long-term rainfall data from 1980 to 2008 from the Ethiopian Metrological Agency (EMA) were analysed and compared, based on data from the local rainfall station in Kadida-Gamela²⁴

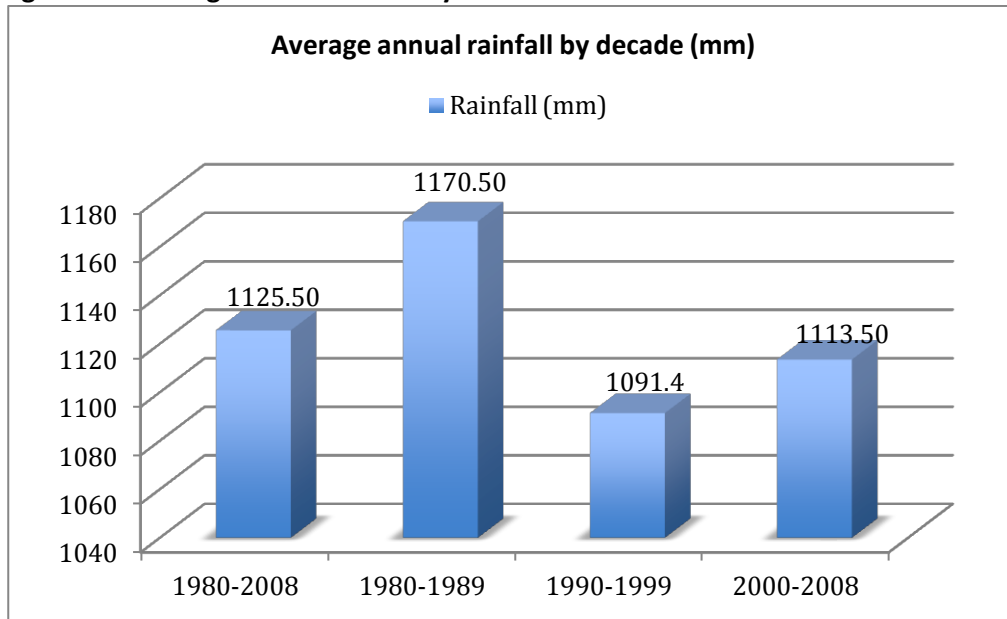
²⁴The Metrological station of Kadida-Gamela district is used for the analysis of the overall rainfall trend in the study area as all three districts have similar agro-ecology and livelihood systems. Further, of the three districts, only Kadida-Gamela has historic rainfall data.

district. The recorded data indicates that the average annual rainfall between 1980 and 2008 was 1,083 mm for Kadida-Gamela district, as shown in Figure 5.2.

Figure 5.2: Annual rainfall trends in Kadida-Gamela district, 1980–2008 (mm)



Close examination of the annual rainfall data for 29 years (Figure 5.2) leads to the following key observations about the trends of rainfall variability in the study area: (1) The first decade experienced relatively higher rainfall than the next two decades; (2) The study area received a relatively higher and evenly distributed rainfall, except in 1984, which coincided with the occurrence of the 1984 famine; (3) Over the three decades, the largest amount of rain was recorded in 1989, followed by 1982 and 2005, with rainfall of 1,581, 1,398 and 1,394 mm respectively; (4) In the same period the lowest amounts of rainfall were recorded in 1984, 1994 with rainfalls of 750 and 813 mm respectively.

Figure 5.3: Average annual rainfall by decade in Kadida-Gamela district

In order to see if there has been a big change in the average annual rainfall over the past three decades, the data were analysed by decades. The results indicated that the average rainfall in 1980–89 was above the overall mean annual rainfall and the lowest rainfall was exhibited from 1990 to 1999. However, the average annual rainfall for the last decade (2000–2008) has shown an increasing trend compare to the previous decade.

In order to further investigate claims about the changing rain patterns and increasing unpredictability the long-term data was analysed according to the two main rainy seasons (see Table 5.8).

Table 5.8: Long-term trends and variability of *belg* and *mehar* rains in Kadida-Gamela district, 1980–2008

Years	<i>Belg</i> season			<i>Mehar</i> season		
	Mean in mm	SD	CV%	Mean in mm	SD	CV%
1980–2008	318.19	91.65	28.80	659.10	117.92	17.89
1980–1989	325.79	103.76	31.84	694.36	137.24	19.76
1990–1999	315.2	83.93	26.62	628.89	119.20	18.95
2000–2008	313.08	96.17	30.71	653.5	93.64	14.32

Source: Computed from the Ethiopian Meteorological Agency rainfall data 2011.

Table 5.8 indicates that the mean *belg* rains in 1980–89 were higher than the 29 years' annual mean. The 29 years' annual mean of *belg* and *mehar* was 318.19 mm and 659.10 mm respectively. The decade of 2000–2008 recorded comparatively lower *belg* rainfall than the

previous decades. Similar patterns were observed in the mean *mehar* rainy seasons where the highest amount was recorded between 1980 and 1989, which is above the total mean.

In order to analyse the variability in *belg* and *mehar* rains distribution over time, a coefficient of variation (CV%) technique was used. The results of the analysis indicate, overall, the *belg* rains exhibited higher coefficient variations indicating higher rainfall variability and unpredictability compared to the *mehar* rains. Further, although the overall variability of *belg* rains has shown a decreasing trend in 1990–99, it has picked up slightly more in the last decade compared to the previous decade. In contrast, the *mehar* rains have shown consistently decreasing trend of variability since 1980s. Therefore an argument can be made that there has been a change in the pattern of *belg* rains over the last ten years in the area. These findings correspond with the perceptions and claims made by peasants and other actors. As observed above, peasants, DAs, local authorities and food security experts in the area of study have unanimously agreed that the amount and distribution of rainfall for both the *belg* and *mehar* rains have changed significantly over time. It should be noted that despite a declining trend, the change of the total monthly *belg* rain over the last 29 years is not as dramatic as often presented by different actors, asserting that drought has become a frequent incident in the study area. However, it should equally be noted that it is not the quantity of rain that matters for rain-fed farming livelihood, which has a very tight farming calendar, but its distribution over time (Menfese 2010: 90). In the study area, peasants have a very well-balanced and busy farming calendar (Figure 2.2) so, the timely arrival, distribution over time and cessation of both *belg* and *mehar* rains is one of the most influential determinants of household food production and food security. For instance, a delay of *belg* rains by two to three weeks could seriously affect the land preparation, planting calendar and overall performance of the crops. In a similar manner, if the rain abruptly ceases after two or three weeks of planting, it also affects the performance of crops and the yield. This may also force households to replant part of their farm, incurring unexpected additional costs for inputs, which has a knock-on effect on the peasant's hard-earned financial capital or last remaining assets. In general, if the rain delays, fails or ceases in a continuous trend, it can cause a long-lasting effect on the overall agricultural production and food security of small peasant farmers. The analysis of the long-term trend indicates that these incidences have happened recurrently and as a result many households have been affected and become vulnerable.

The DAs indicated that the increase of agriculture input prices and shortages of farmland are other very important sources of livelihood shocks for peasant households in the study area.

Interestingly, the *woreda*-level authorities indicated that the dwindling enset crop is an important source of covariate shock that is affecting livelihoods in the area. However, other actors did not mention this, as it is often seen as an idiosyncratic shock affecting only those households who are at the middle and poor economic level with relatively fewer enset trees on their farm. The occurrence of plant diseases, particularly sweet potato butterfly, coffee berry disease, wheat rust and animal diseases, were mentioned as additional livelihood shocks in the area. Except for the occurrence of wheat rust and erosion, all other shocks mentioned are indicated as increasing compared to the past five years. The possible explanation is that the government has launched nationwide extensive soil and water conservation activities through the PSNP and as a result the effect of erosion is controlled and managed.

5.4.1 Households' perception of agricultural production

Households in the study area produce a variety of crops to ensure a regular availability of diverse types of food (see Chapter 2). Households were asked if they had observed changes over the last five years in the overall production of important food and cash crops on their farms, and the reasons for changes, and to rank the factors causing changes in order of importance. Table 5.9 illustrates the results from this discussion.

Table 5.9: Perceived trends in agricultural production

Respondents	Type of crop	Perceived trend	Reasons	Overall rank
Vulnerable households	Cereals (maize, teff, wheat, barley and others)	Decreasing	Increase of agriculture input price	1
			Change of rainfall pattern	2
			Shortage of land	3
			Occurrence of seasonal flooding	4
	Coffee	Decreasing	Occurrence of coffee berry disease	1
			Failure of rain during the flowering stage	2
			The new varieties not adapted to the area	3
	Enset	Decreasing	Occurrence of drought and resultant over-reliance on enset	1
			Occurrence of bacterial wilt	2
			Shortage of manure due to shortage of livestock	3
			Shrinkage of land size	4
	Taro	Increasing	Production high on small plot	1
			Consumption possible without supplementary foods	2
			Fast maturation period	3
			Good growth with low fertiliser application	4
	Eucalyptus	Increasing	Good source of cash	1
			Drought resistance and does not require fertiliser to grow	2
			Improved access to market	3
			Ownership perceived as status symbol	4
			Faster compared to other indigenous trees	5
			Not edible during crop failure like enset thus its production continues without disruption	6
Resilient households	Cereals (maize, teff, wheat, barley and others)	Decreasing	Increase of agriculture input price	1
			Change of rainfall pattern	2
			Shortage of land	3
			Occurrence of seasonal flooding	4
			Occurrence of crop disease (wheat rust)	5
	Coffee	Decreasing	Occurrence of coffee berry disease	1
			Failure of rain during flowering stage	2
			Occurrence of frost and hails	3
	Enset	Decreasing	Occurrence of bacterial wilt	1
			Drought and resultant over-reliance on enset	2
			Increased market access and demand in urban areas	3
	Taro	Increasing	Produce more from small plot	1
			Consumable without supplementary foods	2
			Fast maturing	3
			Source of cash	4
	Eucalyptus	Increasing	Source of fuel	1
			Source of cash	2
			Increasing demand in urban areas (construction boom/urbanisation and improved road access	3
			Grows on unfertile plots and does not require fertiliser	4

Source: Author's fieldwork, 2011.

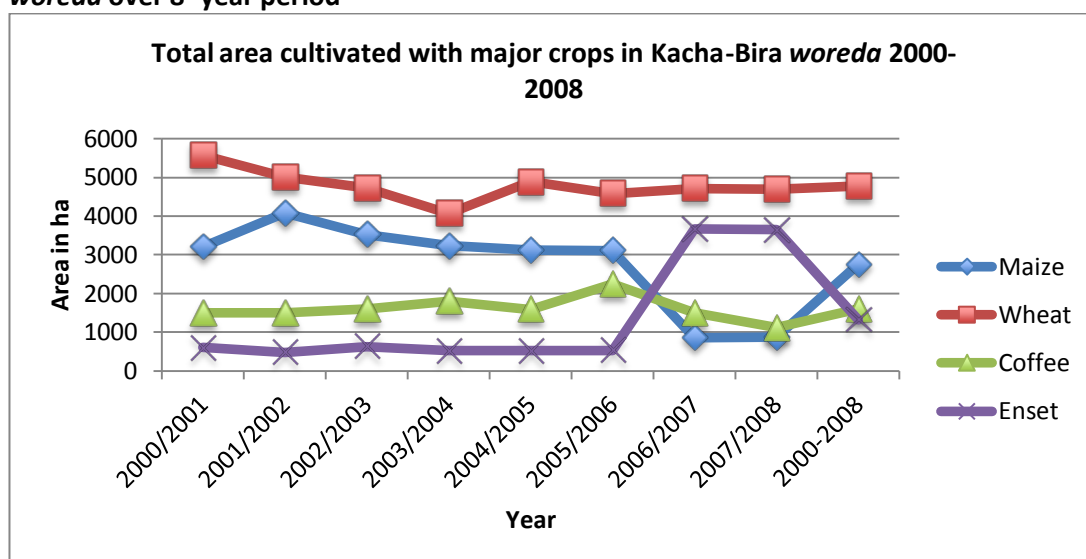
The responses from both vulnerable and resilient households²⁵ in the study area indicated a similar trend in agricultural production over the last five years. Due to the surging agricultural input prices, particularly for fertiliser, changing pattern of rainfall and a shortage of farmland, the production of major cereal crops is perceived as decreasing. Coffee is an important crop in the area and is produced for market (cash) and household consumption. Despite its significantly increased price over the last five years and the establishment of wet and dry coffee washing and processing stations locally, peasants perceived that overall production is dwindling, mainly due to the occurrence of coffee berry disease and rain failures during the flowering stage. Enset bacterial wilt and over-reliance on enset as food and fodder during seasonal drought and hunger periods played a negative role on the production of enset. However, the vulnerable households ranked over-reliance on enset as the main cause whereas the resilient households ranked the occurrence of bacterial wilt as the most important factor for the reduced production of enset. This could be explained by the fact that, during seasonal drought and hunger periods, resilient households have more options of food sources to depend on than the vulnerable groups whose main food source is enset and whose food from cereals is very small to cover their food needs.

Interestingly, however, the production of eucalyptus is increasing across the three districts among both vulnerable and resilient households. The reasons according to both types of households are the advantages offered by eucalyptus compared to other farm produce. Households mentioned the following advantages. Over recent years, the eucalyptus market and its value have increased due to a growing construction sector in urban areas, as all the *kebeles* are located between 5 and 10 km from urban centres and feeder roads have also improved significantly. It has become a main source of fuel as other natural fuels are disappearing fast and therefore market demand has improved. Eucalyptus does not require fertiliser and grows on marginal plots and soils compared to other crops. For these reasons, eucalyptus production has increased significantly over the last five years. In a similar manner, the production of taro is increasing among both vulnerable and resilient households. The reasons mentioned are its yield capacity on small plots, its ability to be consumed without requiring other supplementary foods and its performance with less fertiliser. It should be

²⁵ Vulnerable and *green famine* affected and resilient and non-affected households are used interchangeably through out the thesis (see the indicators applied and categorisation process in Chapter 2).

noted that due to these attributes, farmers have successfully adapted the cultivation and consumption of taro in the recent years, as compared to other crops. The diversification of grown crops and eucalyptus over time has been a strategic response and adaptive mechanism to the reducing size of land and recurrent failure of rains and increasing price of inputs.

Figure 5.4: Total surface areas (ha) planted with major food and cash crops in Kacha-Bira woreda over 8- year period



Source: Computed from K-T Zone Bureau of Agriculture and Rural Development 2011a.

Figure 5.4 indicates that the total areas cultivated to major crops in Kacha-Bira district have decreased over the last seven-year period. This corresponds with households' claims that the production of major crops in terms of area covered has been decreasing since 2008 due to the various reasons mentioned in Table 5.9. This might signal that the land is being used for the production of eucalyptus or taro as their demand has increased over time. Compared to other food and cash crops, the total surface area of enset planted has shown an increasing trend starting in 2003–04. The reason could be that when confronted with frequent failures of rains and increasing input price for cereals, households are returning the production of enset.

Figure 5.5: Total surface areas (ha) planted with major food and cash crops in Kadida-Gamela *woreda* over 8-year period

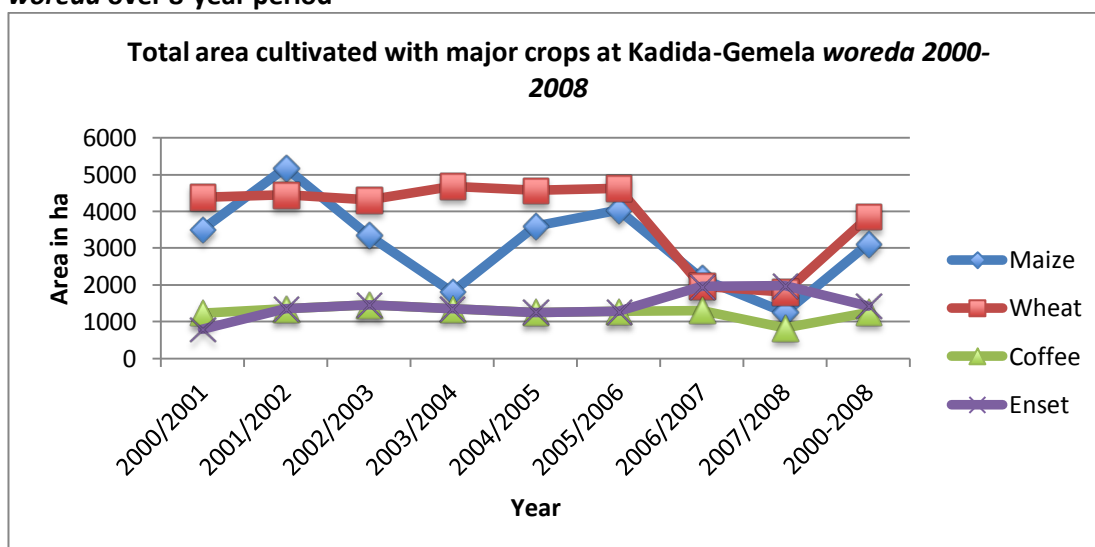
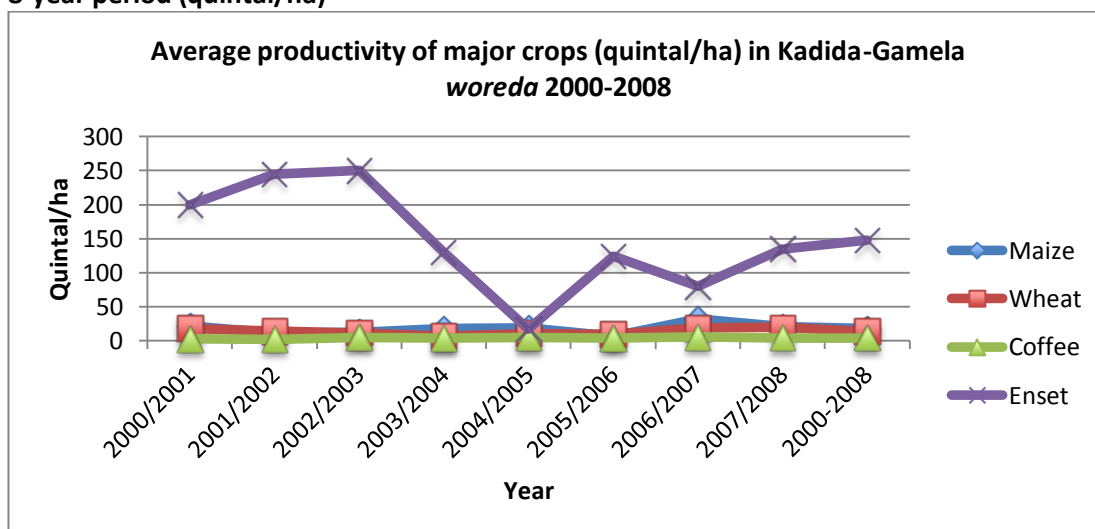


Figure 5.6: Average production of major food and cash crops in Kadida-Gamela *woreda* over 8-year period (quintal/ha)



Source: Computed from K-T zone Bureau of Agriculture and Rural Development 2011a.

As shown in figures 5.5 and 5.6, the trend of major food and cash crops production and productivity in Kadida-Gamela district has shown mixed results. The total area for wheat production was more than the average for the first six consecutive years but after that it shows a sharp downward trend in 2006–07 and 2007–08. On the other hand, the area covered by coffee increased progressively for seven years and showed a steep decline in 2007–08. Despite the area planted with enset showing an increasing trend, the productivity per hectare did not keep up with the area coverage. This could be explained by the fact that enset is a perennial crop and it will take up to five years to fully mature and produce a full yield. As seen

above, on enset production a similar trend was observed in Kacha-Bira district. The increase in total area surface of enset also indicates that after a decline in the production of cereals due to reasons mentioned above, households have started moving back to growing enset to minimise risk because enset grows even in poor rain conditions. This was also indicated by a senior enset researcher at Areka Research Centre discussing a reversal back to enset after they had switched from enset to cereals:

‘Since the beginning, the ongoing agricultural extension programme neglected enset in its package and households were very much encouraged to focus on the production of cereals and cash crops; as a result many people switched to cereals. However, due to the recurring rain failures and drought, cereals could not deliver the promise. Households have learned a hard lesson and now they are requesting us to provide them new enset seedlings. When you go to traditionally enset-dependent areas, you could see peasant farmers are growing more enset than before particularly since the last four years ’ (KI_ARC/15/05/2011).

The productivity of coffee per hectare has shown a continuous upward trend over the period of observation. This could possibly be due to the fact that, as with cereals, the ongoing agricultural extension programme gave priority to coffee production. Cash crops, particularly coffee, are the primary source of foreign currency, and therefore of national interest. The productivity for maize was above average for five years and wheat has maintained above-average production for four years out of eight. Overall, the productivity of the main crops has shown a mixed picture of increase and decrease.

5.4.2 Changing trends in the significance of crops

The decisions on household crop production are dictated by both internal and external factors. Internal factors include changes in taste and crop preference, availability of labour, access to seeds, the cultural value and significance of the crop and the characteristics of each crop. External factors could be market value, weather conditions, availability of extension services, input availability and delivery on time and others. Households often make decisions on what to grow as a unit and decisions are very calculated and based on their short- and long-term implications for household food security. In contrast to internal factors, decisions and changes dictated by external factors are often beyond the control of households and their consequences for household food security and income tend to be negative. In order to understand if there had been a change in the significance of important crops on their farms, households were asked the following question: ‘What are the three most valuable crops on

your farm, now [2011] and five years ago? Importance could be as a source of cash income, a source of food, ease of use, cultural importance, drought tolerance and others.’ The respondents have signalled that the significance of some crops has changed over the course of time. Interestingly, both vulnerable and resilient households across the three districts have indicated that despite the threat of bacterial wilt, enset has remained the major important crop. A comment from the group participants in Kacha-Bira district sums up the unchanging importance of enset despite its dwindling production and other challenges faced.

‘We always wanted to have enset in our backyard. However it is running away from us. The disease is really making it difficult to retain enset. All crops except enset grow only in the presence of sufficient rain. It is our only reliable friend. All cereal crops can disappear in the failure of rain; however, enset never betrays us. Even if we passed away, it will remain in our backyard’ (FG_KB/ME-VCG/11/02/2011).

Interestingly, five years ago sweet potato used to be the second most important crop for vulnerable households and fourth most important for resilient households. However, currently it is less important and, since 2008, the study area has suffered a sweet potato disease caused by sweet potato butterfly (*acrea acereta*); recurrent failure of *belg* rains also contributed to the shortage of sweet potato cuttings. Among the resilient households, the importance of cereal crops (maize and teff) have shown a slight decrease compared to five years ago due to reasons related to sharply increasing prices of fertilisers and unpredictability of rainfall. In contrast, despite dwindling production, the significance of coffee has increased, particularly among the resilient households. The reasons for this are attributed to the fact that the increasing price of coffee in national and global markets facilitates a better market access for the producers. Particularly, after the establishment of the Ethiopian Commodities Exchange (ECX) in 2008 and opening its branches in the neighbouring towns have played a role for coffee producers to get a fair price for their produce. In addition, the respondents have indicated that over the last five years, the number of wet coffee washing and processing stations has increased from one to five and is still growing. In addition, dry coffee processing stations have also increased in the area and other neighbouring districts. As a result, they have a very good market opportunity despite facing problems with coffee berry disease.

In a similar fashion, compared to other crops, the importance of taro has significantly increased over the past five years, particularly for the vulnerable and famine-affected households. The reasons for the increasing importance of taro are explained as follows:

‘We have a new variety of taro which matures very fast. If you plant it in January, you could start consuming in June/July. Enset grows very slow and is consumed only after two to three years of planting, thus it is not a life-saver’ (FG_KB/ME-VCG/11/02/2011).

‘Taro has currently become the most valuable crop due to the introduction of the new variety by the agriculture office that is also early maturing as compared to the previous variety. The community’s dependency on enset as a food source was substituted by taro due to its early maturity and unlike enset it can be consumed without needing a side dish or sauce. It is also cheaper compared to enset and other food sources’ (FG_KB/AS-VCG/15/02/2011).

‘Taro is a very “generous” crop. You can get a lot from a small plot of land and it is not susceptible to a disease like sweet potato. There is a growing market demand and as a result it is becoming a source of income’ (FG_DG/DI-RCG/30/03/2011).

These findings illustrate how in the face of diverse impediments and shocks, peasant households are strategically managing and responding to maintain their livelihood intact and ensure their food security. It also sheds light on how these decisions and strategies that are taken by households are mediated and influenced by institutions and external factors.

5.5 Migration as a response to livelihood crises

This section looks at how migration has become a response to livelihood crises and how it is facilitating livelihood resilience in the area of study. As discussed in Chapter 4, people in the enset-based livelihood system have developed a long tradition of ‘seasonal and permanent migration’ from their places of origin as part of their regular livelihood strategy, and such movements have been used to diffuse the pressure on limited land (Alemayehu 2001:10; Pankhurst 1996:75). As discussed earlier, in the enset-based farming system in general and the study area in particular, men’s involvement in enset processing is limited compared to cereal-based farming systems. Hence, this arrangement provides opportunities for household members, particularly men, to migrate to areas where they can pick up seasonal jobs and earn additional income to increase their overall livelihood income (Shack 1966; Pankhurst 1996:73). As a result, migration on a permanent, seasonal and circular basis to Arsi Negele, Shashamene area, Hawassa, Wondo, Wonji, Methahara and Tendaho sugarcane and cotton plantations, Upper Awash Agro-Processing areas, state Coffee plantations in Jimma and other south western regions and many more has always been an integral part of the local livelihood system for households in enset-based livelihood zones and in the study area in particular (Alemayehu

2001: 9). It can be argued that this has been one of the main reasons that the enset-based livelihood system has maintained its resilience and has been less affected by frequent hunger and famines compared to the cereal-based farming systems in other parts of the country. Against this systematic and well-integrated livelihood system, the introduction of 'ethnic-based regionalisation' two decades ago in the country has restricted the movement of people (Lautze and Maxwell 2007) and negatively affected their livelihoods (see Chapter 4 for more details on this). How have households been responding to the dynamics of changing policies of movement and livelihood crises? In order to understand this process, communities were asked if there have been any changes in the movement of people outside their area to other regions and, if so, how have such changes affected the livelihoods of people? these issues are discussed in detail below.

Restrictions on internal movement did not stop many households from leaving their area and new opportunities and new challenges have emerged over the period of time. During the last ten years or so, the nature and direction of movement and migration of people from the study area and other neighbouring enset-growing districts have changed from local and seasonal to regional and international/cross national boarder (Solomon 2011: 12; Dome *et al.* 2012: 88). Of the three study *woredas*, Doyo-Gena was chosen for the case study on how the migration of young men and women to the Republic of South Africa, North Sudan, the Middle East and Gulf states is undertaken and how it is affecting the resilience of the local livelihood system. Doyo-Gena is a highland district, bordering Hadiya zone and is 15 km from the town of Hosanna, the biggest urban centre in the area (see Figure 2.1). The district has one urban and 13 rural *kebeles* with a total population of 91,186 people in 2012. The data were collected in August 2011, in collaboration with the District Office for Agriculture and Rural Development, by visiting all the local *kebeles* accompanied by the DAs for each *kebele* (see Chapter 2). Table 5.10 shows disaggregated data on the number of people migrating from the district over the last ten years and their final destinations.

Table 5.10: Total number of migrants from Doyo-Gena district by sex and destination

Migrant's destination	Migrants		
	Male	Female	Total
Republic of South Africa	2,180	74	2,254
North Sudan	3	83	86
Middle East and other Gulf states (Kuwait, Saudi Arabia, Oman, United Arab Emirates, Bahrain, Dubai and others)	0	142	142
Total	2,183	299	2,482

Source: Author's fieldwork, 2011.

The results in Table 5.10 show that significant number of people have migrated to different countries outside the study area. The data also shows that South Africa is the top final destination for the migrants. It should be noted that the data do not include domestic labour migration: urban migration is a growing trend particularly among younger, high school drop-outs and graduates seeking seasonal employment such as lottery vending and shoe shining in bigger urban centres. FGDs with households who have one or more members who have migrated indicated that the international migration is a recent trend. The figures indicate that overall migration is male-dominated, attributed to cultural and other socio-economic factors, which make it easier for men to travel than women. The migration process is very sophisticated and in the case of South Africa involves crossing international borders of four or five countries such as Kenya, Tanzania, Malawi, Mozambique and Zimbabwe by road and on foot before they reach their final destination (Liqu 2007: 36; Dome *et al.* 2012: 90). There are three dominant ways of out-migration to South Africa: by air, by land and a mix of both means. The former is more expensive and the chances of securing an entry visa are limited but it is less risky and the success rate of arriving at final destination is very high, whereas the second option is the more widely applied method for those who cannot afford to pay for the process and airfare. The third option is relatively expensive, fast and provides a better chance of arriving at final destination than the second option. Migration to the Middle East and Gulf states is only undertaken by air and through legally registered agents who handle the entire process.

Different actors are involved in the facilitation of the migration process, such as *delalas* (brokers). The household case studies with migrant households indicated that it takes on average 2–3 months or even longer on the road to reach the final destination. Many die on the way as a result of this long and dangerous situation, suffering from lack of water and food, and many get caught by border patrols in different countries and are deported (personal experience and discussion with returnees).²⁶ The number of migrant deaths on route to South Africa in particular is increasing shockingly. For instance, the BBC (2012) reported that in June 2012, ‘of 127 migrants who started their journey from Ethiopia to South Africa by truck, 42 died from asphyxiation after they arrived in Tanzania’.

²⁶ Dome *et al.* (2012:92) case study reported similar incidence of migration related deaths (on route and inside South Africa) in one of the study *woreda*. During my field, I have also attended both farewell parties and funerals related to migration to South Africa.

The study also shows there is a growing trend of out-migration to North Sudan and the Middle East and Gulf states. These are destinations mainly preferred by women who go to work as housemaids. In these cases, there are specialised and 'legally registered' agents operating in the capital, Addis Ababa, who organise such trips for young women who go to work for some time and come back with some income. North Sudan is easily accessible by road through northern Ethiopia and preferred by those who cannot afford to pay the migration fees required by agents. The sending households indicated that there are both push and pull factors that are forcing people, mainly the young, from the area. The main push described is economic factors that arise from lack of local employment opportunities and restricted movements domestically. The pull factors are diverse employment and cash-earning opportunities that exist in the receiving countries. Further, those who have made it to South Africa in the past have been able to create and accumulate good wealth in their home country and particularly in their place of birth through remittances and have successfully changed the economic conditions of their families and extended families. As a result, by looking at some of the success cases, young men are motivated to do the same. Despite it being a very difficult, risky and expensive response, there is a very strong and growing trend of out-migration from the study area to the destinations mentioned above (see Boxes 5.2 and 5.3).

Box 5.2: Case study: Household with four members migrated to South Africa

Mrs Chufamo is a married woman with eight children, five boys and three girls, and lives with her husband in Doyo-Gena district. She owns 1.25 ha of land. She explained why her children decided to migrate to South Africa. All her children have completed high school and one is a college graduate. They knew how little land each would get if they remained in their village. She said her first-born son is a diploma graduate, married with two children and had been looking for work in the area. He finally decided to migrate after knocking on many doors in search of a job in the area with government and private institutions. She said she did not help her children to go to South Africa because they already spent all their money in covering school fees and providing support while they studied. Two of their sons covered their travel expenses through the money they earned working as part-time hairdressers in Hosanna while they were at high school. Once they decided to migrate, they came to their parents and asked them to draw lots to decide which one of them should go first and asked for their blessing. The parents drew lots and the chance came out for the youngest, and he went when the travel cost was 12,000 Ethiopian birr some nine years ago. After he was settled, he sent some money to his brother to follow him, which is how they started helping each other, and as a result currently four sons are living in South Africa and one is living in Addis Ababa. She indicated three years ago she and her husband went to South Africa to attend the wedding of her son.

‘The migration to South Africa has given both advantages and disadvantages. Security is a problem once they arrive in South Africa. For instance, while I was there, thieves killed a friend of my son while he was working in his shop. In order to stop such desperate action of going to other places, government should create opportunities here like factories and other opportunities locally. I think our government should look into the situation and find a way to go there in a legal and recognised way without such suffering. Although they support us financially, it is a really difficult decision to send your children far away into uncertainty. However, that being said we are better off afterwards because our children are in South Africa as they send us money for everything we need. *Mini kursu, mini kollu affamimba* “we do not sell what we produced or other assets to cover our food needs”. Basically, now we are self-sufficient. Again, I would prefer if my children stay here and be at my funeral.’ She said ‘*Betobe ello kesano*’, meaning that according to Kambata culture, it is your elder child who chooses where you [parents] should be buried and takes care of you while you become old.

Box 5.3: Case study: Migration to South Africa from a poor household

Ato Mancho is a 45-year-old peasant, married with 12 children, three male and nine female. He owns a hectare of land and practises both agriculture and blacksmithing on a seasonal basis. He grows wheat, beans, maize, enset, eucalyptus trees and some 20 coffee trees (only for home consumption). Blacksmithing is a skill he inherited from his father passed down through different generations. During peak agricultural season and festivities, he earns up to 50 birr per day and shares this with two co-workers. He indicated that despite owning a hectare of farmland and producing many types of crop, the output is very low due to the decreasing productivity of the land. He said, 'We work hard and produce some, but we need to pay back these input loans. We are left only with crop residue for our cattle.'

His second son who is a high school graduate left for South Africa in 2008. When asked how he managed to send him, he explained that 'it was a long process ... some five years ago, I gave my son a plot of land so that he can grow Irish potato. He prepared the land very well and planted the potato and had a very good harvest. He sold the produce and gave the earnings to his best friend who was in the process of emigrating to South Africa. He continued planting potato for three consecutive seasons and was able to make up to 8,000 birr, which covered half of the cost for his trip. According to the personal arrangement he made with the friend he helped earlier, he received a payback to cover half of his trip cost. Once he managed to get the required amount, he started his journey by road and arrived in South Africa nine months later. His friend welcomed him and facilitated him to settle in and start a business. He told me he suffered a lot on the road and as result it took him almost four months to recover from his condition. Since he arrived in South Africa, he hasn't sent much remittance to us. However, he is covering the cost of *Meskel* [traditional festival held in September] every year, which is also a big help for us.'

The conventional understanding and debate around migration is that only those who can afford the costs of travel can take part in cross-boundary/international migration. Despite this argument, even people who are in the lower economic strata also take part in international migration by using their extended networks (see Box 5.3) and informal support systems. The various household case studies suggest that the ongoing rural out-migration has a wide-scale benefit for the livelihoods in the area of study. Despite being very expensive, a reasonable number of poor households are taking part in this process.

It should be noted that ongoing out-migration, particularly international migration from the enset-dominant livelihood zones of the Kambata highlands, has two general explanations. (1) Localised and seasonal migration of people in enset-dominant livelihood zones is not a new trend but rather is a continuation of a generations-long livelihood strategy. It is a strategy that is adopted by households as a means to diffuse pressure on farmland (demographic response) as Dessalegn (2007), Alemayehu (2001) and others claim, the income drawn from it is used to increase the agricultural income, ensure household food security and increase livelihood resilience against shocks. (2) Confronted with restricted movement and increased livelihood crises and food insecurity, people are using migration as a coping strategy. However, the increasing out-migration by young Kambata women to wealthy Middle East and Gulf states to work as housemaids is a very new trend. It is an intriguing development that young girls are out-migrating in an increasing numbers. In their recent study in one of the study *kebeles* (Aze-Dobo'a), Dome *et al.* (2012: 146) investigated the trajectory of increasing numbers of women migrating locally and internationally, noted it as 'a new trend' and something unthinkable some ten years ago, and attributed the causes to increased population, lack of local labour opportunities and access to information and increased access to education for girls.²⁷

Even though the underlying causes of migration are diverse and complex, the ongoing migration in the study area is a response against the restrictive policy that had been imposed on traditionally mobile people and an adaptive mechanism towards the inherently small land size. Further, lack of local employment opportunities outside the agriculture sector, increasing vulnerability to food insecurity and periodic famines due to various covariate and idiosyncratic shocks, inability of the enset-based livelihood system to sustain a growing population and lack of secure livelihood systems are push factors that are forcing people to resort to expensive and risky migration. Economic factors such as the existence of better job opportunities and economic gains (remittances, new cars, houses and other wealth) that are achieved by those who have migrated in the past, the emergence of actors who are involved in the migration business and improved access to information are seen as pull factors.

²⁷ This is part of Wellbeing in Developing Countries (WIDE) research project that has been ongoing since 1995 in selected rural villages in Ethiopia documenting long-term perspectives on development impacts. See more on www.wed-ethiopia.org.

5.6 From vulnerable livelihoods to vulnerability to *green famine*

As noted in Table 5.2, households with different types of livelihood categories have experienced different types of covariate and idiosyncratic risks and vulnerability factors over time in the study area. The recurrence of these vulnerability factors has resulted in a progressive loss of livelihood resources and entitlements over the last two decades and subsequently increased people's vulnerability to recurrent food insecurity and *green famine*. Thus, as noted in Figure 4.2 and Table 5.6 respectively, recently the occurrence of a single or combination of trigger factors such as irregular distribution and failure of *belg* rains, sudden price hike of food items or the outbreak of sweet potato disease and subsequent loss of production are pushing households to the edge and are causing serious food crises and localised famine situations (Woldeyesus 2008: 5). However, these risks are regular phenomena and features of the local smallholder and rain-fed agriculture production and livelihood system, which have occurred in the past. The majority of interviewed households and different actors indicated that in the past these shocks were not strong enough to push the majority of households to the edge of food insecurity and cause a famine. It should be noted that the progression and transition from being historically food secure and resilient to becoming increasingly vulnerable to food insecurity and *green famine* is not a rapid and sudden process. As noted in Chapter 4, the changing agricultural policy environment and political process of regionalisation since the early 1990s had a knock on effect on the livelihoods of households that are primarily dependent on mixed farming that is characterised by enset, cereal and livestock production supported by seasonal migration. Further, this dominant livelihood group was affected by covariate shocks that are related to unpredictable and uneven distribution of rainfall, drought, and incidence of enset bacterial wilt. *Green famine* is a cumulative effect of several vulnerability factors that have occurred in K-T zone over a long period of time. Thus, understanding the significance of these vulnerability factors that had been recurring for many years before the actual deterioration to acute food insecurity and *green famine* situation occurs helps to improve the conceptualisation of famine as a process and an outcome of extended periods of vulnerability factors over time, rather than sudden and unpredicted events. For instance, Hall-Matthews (2002: 10), examining the complex famine process and famine policy in Ahmednagar district of India in the 1870s, succinctly captured this aspect as:

The famine process implies an incremental series of small occurrences, triggered by various agents, which make the risk of starvation more likely. It is multifaceted; a thousand cuts coming from many directions and affecting different aspects of peasants' livelihoods and strategies.

It is widely evidenced that not all households of different types of livelihoods and wealth categories are vulnerable to similar types of shocks and are affected at the same level even in similar livelihood zones or social, economic and political contexts. The occurrence of similar covariate shocks (e.g. rain failures, drought, market price hike, conflict) and the level of affectedness significantly vary among different wealth categories and livelihoods groups. For instance, as the case study in Box 5.4 indicates, for households pursuing caste-based livelihood strategies, the occurrence of failure in demand for their products, limited access to production materials and lack of other income sources in combination with social and cultural marginalisation over time increased their vulnerability to food insecurity and *green famine*.

Box 5.4: Case study: Caste-based livelihood

Ato Fayiso is a 40-year-old peasant, married with eight children. His main livelihood is pottery. In addition to making pottery, he grows different crops on his 0.25 ha of land. Five of his children and his wife are involved in making pottery products. He draws income from PSNP transfer, sales of pottery products and pension. Pottery alone generates about 1,600 birr income annually. As a retired ex-military service personnel, wounded in combat, he receives 150 birr per month as a pension. Since his land is very small, the food produced covers household food needs for only about three to four months per year. He explained the challenges he now faces as follows.

During the Derg regime, there was communal land everywhere. However, over the last two decades, these lands have been divided and given to individual households. He used to access clay soil, grass and fuel woods from designated communal lands for free. Now, however, he is facing problems in getting these essential resources to pursue his livelihood activities. He said that currently he pays 10 birr to an owner of land with good-quality clay soils for a one-time collection of clay. During the 2008 hunger (*green famine*), his family suffered a great loss of income due to a drastic decrease of demand for his (see Table 5.3). The demand was so low that he even gave out produce on credit or in exchange for very small food items. He also highlighted that currently he is facing stiff competition from cheap plastic products imported from abroad, particularly from China. As a result the preference of customers is shifting to the cheaper products and demand for his clay products decreasing significantly. 'Life for potters has become an uphill struggle, and I don't see much hope in the future for significant improvements.'

Similarly, as indicated in Table 5.6, the size of the total population affected by the 2007–08 *green famine* and the required emergency relief in the seven *woredas* in K-T zone varied significantly. For instance, the lowland *woredas* of Tembaro and Hadero-Tunto and some of the lowland *kebeles* in Kacha-Bira and Kadida-Gamela were the hardest hit by *green famine*. One of the explanations for this is that these areas are more cereal and cash crop dominant (coffee and ginger) as well as sweet potato than the highland *woredas* which have larger enset coverage and are more diversified and subsistence-production oriented. In a similar manner, as noted during the fieldwork of this study, even within the three study *woredas*, those *kebeles* and villages located in the lowland areas and cereal and cash crop dependent were affected more severely than those in the highlands. For instance, Messena and Awaywee, two lowland *kebeles* in Kacha-Bira *woreda*, disproportionally experienced severe food crisis and mortality rates as evidenced by the personal visit of the Deputy Prime Minister and Minister of Health to these areas after the severity of the situation was reported by international humanitarian agencies on the ground. During their visit, they were shown many new graves that are believed to be of famine victims.²⁸

Further, an in-depth investigation of coping strategies adopted by households during the *green famine* reflected a closer linkage between the severity of coping strategies and different types of livelihood groups and wealth categories in the study areas (this is discussed in greater details in Chapter 6). In general, households who pursued caste-based occupations, labour-based occupations and trade-based occupations (selling of fuel woods and fresh grass) mainly from the poor and destitute economic and social wealth categories adopted one or more irreversible coping strategies such as consumption of unusual foods, begging for food, selling of young and immature enset trees, leasing out farm plots for extended period (see Box 4.2), engaging in activities that are culturally unacceptable (stealing enset, *kocho* and others) (See Figure 6.2 and Box 6.1). The case study presented in Box 5.5 reflects a type of coping strategy adopted by a vulnerable household whose main livelihood strategy depends on farming and casual labour during the 2007–08 *green famine* period.

²⁸ Personal communication with the K-T zone early warning and food security expert, February 2011.

Box 5.5: Case study: Vulnerable household

Yiimma is a 35-year-old peasant farmer who resides in Wagebatta *kebele* along with her husband and five children. The family's livelihood is based on farming and casual labour. Harvesting enset, cleaning house, collecting water and disposing of livestock manure are among the casual work that she does for better-off households. Similarly, her husband tills land, harvests and plasters mud for newly built houses. However, currently he is not able to do these as his health has deteriorated over time. As a result, all the household responsibility falls on Yiimma. She has 0.25 ha of land. However, she rented out half of this land to a better-off household for five years following the 2008 *green famine*. She said that she is not using the agriculture extension package (seed and fertilisers) for various reasons. Foremost, she fears defaulting and its consequences. Also she cannot afford to make the advance payment that is required to access the inputs. In addition, given the size of her land (with half already rented out), she does not see the need to invest more on the remaining small plot. She said that due to these factors she is not benefiting from the extension system.

The case study also reflects how vulnerability and poverty are intertwined and how the baseline vulnerability of a household had become a barrier to accessing and adopting the agricultural extension package that could have played a significant role in improving household food availability and access. As Pankhurst (2009: 9) noted, generally poor and vulnerable households are 'risk-averse', proposing possible reasons as 'off-track vulnerable households can even be made more insecure by taking loans, if they face shocks, particularly illness of household members and death of livestock bought through loans'.

In contrast, households from better-off and middle-wealth categories adopted a combination of one or more precautionary types of coping strategies indicated at the lower level of the sequence of coping strategy ladder. These coping strategies bear less effect on the overall asset base and well-being of adopting households (see Figure 6.2). The case study in Box 5.6 narrates how a household from a better-off household with a large coverage of eucalyptus trees on his farm has coped with acute food insecurity and *green famine*.

Box 5.6: Case study: Better-off household with a large eucalyptus tree coverage

Ato Larebo is a 69 years old farmer married with 12 children (6 male and 6 female) who resides in Aze-Dobo *kebele*. All the children are well educated and are employed in various organisations. His older son is a pastor and religious teacher based in America and often sends remittances home. He has 6 *timad* of land but also rents additional land from the poor households in the community and a nearby public school. He grows enset, fruits (banana, avocado, mango, lemon and orange), maize, beans, teff and coffee. His enset farm size has not changed over the last ten years and he is still doing routine farming practices. A quarter of his farm is allocated to eucalyptus. In the past, his main income derived from coffee, teff, sales of livestock, remittance, salary and concrete and sand production. However, recently, sales from eucalyptus have become an important source of income. As he revealed, in September 2011, he earned 100,000 ETB or the equivalent of 6,153 USD from eucalyptus sales. He indicated, 'this amount of money I have never earned from my land in my entire life'. He indicated his family was not affected severely by *green famine* in 2003 and 2007–08 compared to others in his village as he had a large number of mature enset and financial resources to access food. Particularly during the 2007–08 *green famine*, enset-based foods become a frequent source of food at his household. Further, he indicated he did not sell his productive assets to cope with a food crisis and to access food. Despite the price of food increasing sharply, he went to the nearest big market and purchased 6 quintals of maize and wheat at wholesale prices and utilised them in a prudent manner.

5.7 Conclusions

This chapter sought to show the types of household livelihood strategies in the enset-dominant livelihood zone in southern Ethiopia. It also attempted to introduce the roles played by the enset crop in household food security and identified factors affecting the resilience of this farming system and implications for increasing vulnerability to food crises and periodic *green famines*. This livelihood system used to be resilient and relatively hunger- and famine-free compared to other, cereal-based, livelihood systems. Enset used to be a 'secret weapon' and a shield that protected households against seasonal and periodic hunger and famine in the area. Currently, however, this livelihood cannot support the people and has reached a tipping point and is severely stressed due to a chain of recurrent shocks and stressors over time. Community and different actors at different levels have identified various livelihood risks and shocks. These livelihood risks and shocks stem from natural/climatic, demographic, socio-

economic and policy-oriented factors. Thus, the prevailing food crises and *green famine* are a result of long-term processes of multiple vulnerability factors that have occurred in K-T zone over a long period of time. In a similar vein, understanding the significance of these vulnerability factors that had been recurring for many years before the actual *green famine* situation occurs helps to improve the conceptualisation of famine as a process and an outcome of extended periods of vulnerability factors over time, rather than a sudden and unpredicted event.

Different livelihoods experience different types of risks and shocks and the importance and effect of these vulnerability factors on the livelihood system varies significantly. Communities identified that currently there are four wealth categories across three *woredas*. The livelihood analysis identified and situated different types of livelihoods across different wealth categories across the study area. The majority of households from better-off and middle wealth categories pursue more specialised and less diversified livelihood activities. Further, they produce more enset, cereal and cash crops (coffee and eucalyptus) than poor and destitute households. In contrast, the majority of households from the poor and destitute wealth categories are engaged in diverse livelihood activities such as seasonal migration, daily labouring, trade-based activities (selling fuel woods and grass) and caste-based occupations to make the ends meet.

Results of community FGDs indicated that there had been significant changes in the wealth groups over the last decades. They have claimed that there is a growing trend of more people becoming poor and sliding into destitution from the middle class over time. This growing number of poor and destitute people is an indicator of livelihood failure due to recurring shocks over time in the area. The production of main food crops has shown a decreasing trend while the overall productivity is failing to keep up with growing demand. In a similar manner, the price of inputs has increased progressively and negatively affects the middle-income and poor households. The significance of some valuable crops has changed over time and new crops have emerged as a result. For instance, the overall production and significance of eucalyptus and taro has increased among all wealth groups across all the research sites. On the other hand, the production of enset, sweet potato and cereals has decreased over time.

Different actors and the community at large have perceived and claimed that the amount and distribution of both the *belg* and *mehar* rains have changed significantly over time and identified this as a main culprit for the prevailing livelihood crises and resultant food insecurity

in the study area. Analysis of a longer-term rain pattern from 1980 to 2008 indicated that the average annual rainfall has shown a slightly decreasing trend in the last two decades (1990-1999 and 2000-2008). In general, the *belg* rains has shown more variability or unpredictability during the period observation compare to *mehar* rains and the later has shown consistently decreasing variability. Further, despite the overall variability of *belg* rains has shown a decreasing trend in 1990-1999, it has picked up slightly more in the last decade compared to the previous decade. Overall, despite a slight declining trend, the change in average annual rainfall and the two rainy seasons (*belg* and *mehar*) over the last 29 years is not as dramatic as is often presented.

Different types of shocks are affecting the livelihoods in the area. These livelihood shocks are multifaceted and interlinked and they have different dimensions such as natural (changing rainfall patterns), economic (deepening destitution and poverty), social (demographic pressure) and political (policy-oriented such as restrictive movements and lack of alternative local labour opportunities, less or no attention to traditional food sources). The sources of vulnerability for the households whose livelihoods are based on daily and seasonal labour are limited job opportunities, seasonality, stiff competition and higher demand for local jobs, occurrence of drought and increasing price of food items. For caste groups, restricted access to productive materials (for example, clay for potters), shortage and cost of materials (scrap metals, hides and skins) and changing product preferences of consumers are factors that significantly affect their livelihood system.

As livelihood crises deepen, households respond through different strategies such as diversification of agricultural production and adaptive strategies such as migration. In the enset-dominant livelihood zone, migration (both short-term and permanent) has been and still is a part of the regular livelihood strategy that supports the resilience of the system. However, due to the introduction of an ethnic-based administrative system, internal and seasonal migration have been severely affected and people are forced to stay in their own area or region. More recently this trend has started to change and currently migration is happening in two forms: domestic migration to larger urban centres and cross-national border (international), for example, to South Africa (mostly by young male household members), the Middle East and oil-rich Gulf States (preferred by young women). Both forms of migration are occurring partially as a response to the deteriorating livelihood system. Overall, both types of migration are playing an increasingly important role in strengthening the resilience of livelihood systems for many households in the study area.

The next chapter discusses the similarities and differences between the famines of 1984 and *green famine*. It also explores how the occurrence of *green famine* in enset-dominant livelihood zones can challenge the conventional narratives of the causes of famine.

CHAPTER 6

***Green famine* and the 1984 famine in Ethiopia: similarities, differences and measurement of famine**

The people who suffer famines are rarely, if ever, given the opportunity to define the event as they see fit and respond using their expertise (Alex de Waal, *Famine that Kills: Darfur, Sudan*, 1989: viii).

A famine on the scale of 1984, when Band Aid and Live Aid raised about \$150m in relief for Ethiopia, is still unlikely. Logistics and medical understanding have improved. Yet, sadly, some of the conditions that created that famine have not really changed ('Ethiopia: Will it ever be able to stave off starvation?' (*The Economist*, July 2008).

6.1 Introduction

This chapter critically examines the theoretical and causal similarities and differences that exist between the *green famine* of 2007–08, which occurred in the enset-dominant livelihood zone in southern Ethiopia, and the '*great famine*' of 1984 that affected many parts of Ethiopia. It identifies the types of coping strategies adopted by household during normal food crises and *green famine* period and explores their role and significance in famine analysis and classification. Further, it reviews and critiques how scientific and standardised anthropometric and mortality measurements of famine (as 'objective' indicators) have become dominant parameters in defining and categorising famine and explores alternative indicators and measurements. By proposing an alternative famine scale, the chapter investigates whether the *green famine* should be categorised as 'famine' or as a localised food crisis that affected a segment of the population in southern Ethiopia. It explores how the occurrence of *green famine* challenges the conventional discourse and understanding of the causes of hunger and famine in Ethiopia, as well as global famine measurements and scales.

6.2 Documented famines in Ethiopia: their causes and effects

As noted in Chapter 4, the causes of famines that struck Ethiopia have been attributed to seasonal rain failures/drought, disease outbreak (in both humans and livestock), population pressure and land shortage, subsistence economy characterized by subsistence agricultural

practices and other natural factors (Mesfin 1984; Pankhurst 1985; Von Braun 1991). In addition to this dominant view and explanation of why famines occur in Ethiopia, famine itself is seen as a one-off event that occurs due to food shortages in a given period of time resulting in excess mortality (Lautze *et al.* 2003: 19; Lautze and Maxwell 2007: 238).

Lautze *et al.* further explained that, as a result of such understanding, famine responses in Ethiopia have been heavily dominated by a 'food first bias', and government policies have also been geared towards addressing the issue of food shortages for a very long time. The history of famine in Ethiopia indicates that prior to the 1970s, famines have been mainly concentrated in the northern, central highlands and lowlands of the country often referred to as drought- and famine-prone areas, where famines have inflicted countless damage to livelihoods and lives of Ethiopians over time (Aklilu 2000: 49; Degefa 2005: 21; Lautze and Maxwell 2007: 223). As explained previously, the enset-dominant livelihood systems, in southern Ethiopia have been regarded as relatively 'food crises and famine-free' compared to the cereal-based livelihood zones of the country (Dessalegn 1996: 84). However, in the last two decades, this part of the country has become increasingly vulnerable to persistent food insecurity and *green* famines.

6.2.1 The 1984 famine and its causes

The 1984 famine in Ethiopia is categorically considered as the most severe famine that the country has suffered in its modern history since the famine period of 1888–92. Mesfin (1984: 34), based on the historical accounts of Richard Pankhurst, a prominent historian based in Ethiopia, described the famine of 1888–92 as 'the deadliest famine ever'. Despite the fact that the exact causes of this famine and its total mortality remain contested, Pankhurst (1972 cited in Mesfin 1984: 34) claims that it was triggered by a contagious rinderpest disease that was introduced by horses and mules belonging to Italians who were based in Massawa (the present-day port of Eritrea). The disease first transmitted to livestock in the surrounding area and rapidly spread across the whole country, killing about 90 per cent of the Ethiopian cattle that were a key pillar of agriculture production and source of food. The occurrence of severe drought exacerbated the situation and the subsequent famine claimed the lives of an estimated 'one-third of the population of Ethiopia' (Mesfin 1984: 32–34; Devereux 2001a: 117; Degefa 2005: 151).

The 1984 famine was an event that attracted global attention and resulted in an unprecedented international response (Clarke 1986: 3). As with other famines in Ethiopia, the exact figures of famine mortality are debatable. As noted in chapter 1, the UN and other sources estimated the death toll to one million while Africa Watch (1991: 172) and Dessalegn (1991: 108) estimated 590,000 and 400,000 respectively. The causes of famine were attributed to a severe and protracted drought, subsequent crop production failure, civil unrest (particularly protracted fighting between the central government and guerrilla fighters who stood against the Derg regime) and subsequent response failure by the central government (intentionally), poor economic development of the country (Webb and Von Braun 1994; Degefa 2005). Despite the wide geographical spread of the famine across the larger portion of the country, the severity of its effects were mainly concentrated on the northern, central and eastern highlands and lowlands (Mesfin 1984; Degefa 2005; Dessalegn 2007). Table 6.1 summarises some of the major famines and food crises²⁹ in Ethiopia since 1950, their geographic spread, perceived causes, estimated mortality and the classification of the crises.

²⁹ Here, the term food crisis refers to the expression most often used by the government during food shortages in country. However, it should be noted that the magnitude of a food crisis is not known as they all tend to be termed food crisis. Famines are defined and declared in retrospective studies.

Table 6.1: Major famines and food crises in Ethiopia since 1950

Period	Regions affected	Perceived causes/ triggers	Estimated mortality	Category of crises
1957–58	Tigray	Drought and locusts	250,000 people	Famine
1966	Wollo	Drought	50,000 people	Famine
1972–75	Wollo and Tigray	Drought	350,000 people	Famine
1978–79	Southern Ethiopia	<i>Belg</i> (short rain) failure	No data	Food crisis
1982	Northern Ethiopia	<i>Mehar</i> (long rain) delay	No data	Food crisis
1984–85	All regions but severe in the north, central and eastern parts (Wollo and Tigray)	Consecutive drought, armed conflict between the rebels and central government, deliberate response failure	Estimated 600,000-1 million people	Major famine
1990–92	SNNPR, Somali, Oromia and parts of Amhara and Tigray highlands	<i>Belg</i> and <i>mehar</i> failure and regional conflict	Estimated 4 million people*	Food crisis
1999–2000	SNNPR, Somali, Oromia and parts of Amhara and Tigray highlands	Drought, particularly the failure of short-season rains	6070 ³⁰	Serious food crises, near famine situation, moderate famine
2002–03	SNNPR, Somali, Oromia and traditionally famine prone areas of Tigray and Amhara regions	Poor performance of seasonal rains, Saudi Arabia imposed an import ban on livestock from Ethiopia, global coffee price decline	21,795 child deaths	Food crises (GoE)
2007–08	SNNPR, Somali, Oromia, traditionally famine-prone areas of Tigray and Amhara regions	Poor performance of <i>belg</i> and <i>mehar</i> rains, resultant poor cereal and root crop production, and food price increase	4.6 million people affected, but no data on mortality*	Food crises 'Near famine situation Famine <i>Green famine</i>

Note: * indicates estimated number of 'affected people' not mortality.

Sources: DPPC/UN-OCHA joint government and humanitarian partners humanitarian requirement documents from 2000, 2003, 2008, various UN-OCHA Ethiopia office reports and Devereux (2000b, 2001a: 118); Kaiser (2003); Salama *et al.*, (2001: 568).

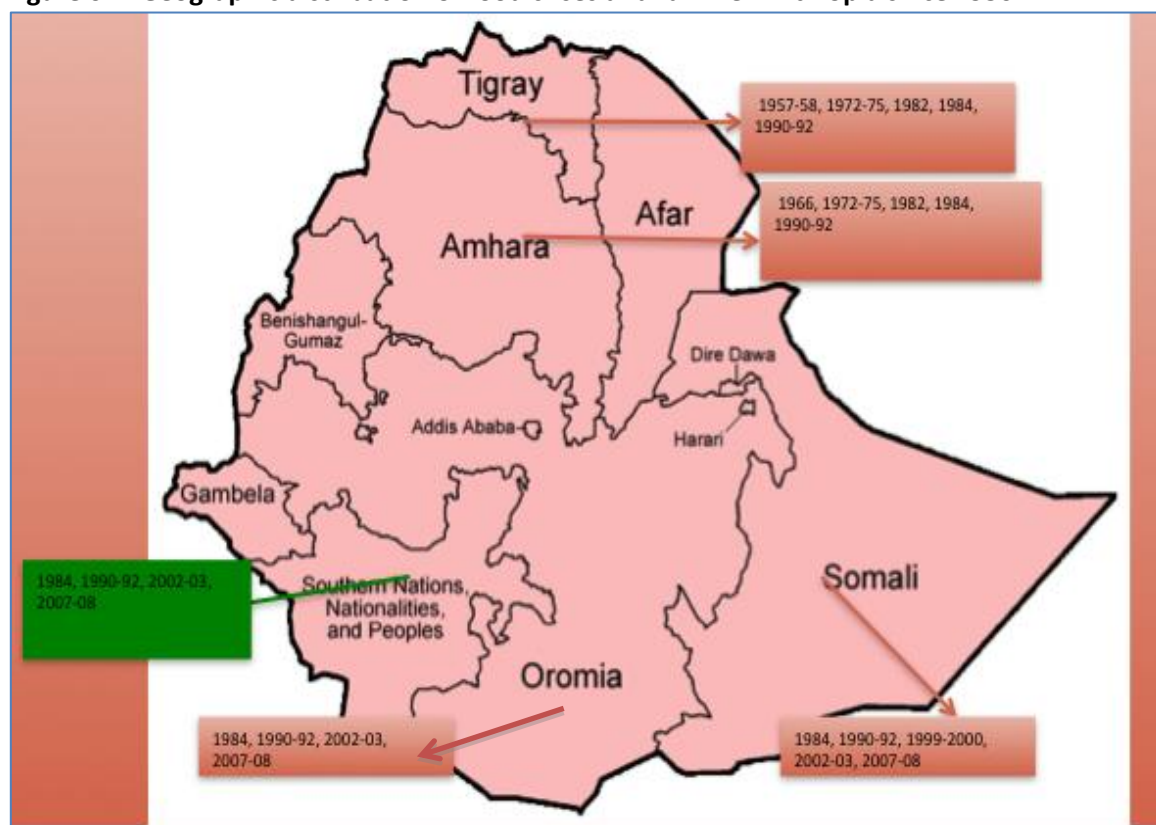
6.2.2 *Green famine* and its multiple causes

As with famines in general, the common explanation in Ethiopia of the causes of *green famine* is climate variation manifested through delay or failure of rains, often described as drought. However, as indicated in Chapter 4, *green famine* is caused by a combination of factors

³⁰ Salama *et al.*, (2001: 568) estimated the death toll of the famine of 2000 in Somali region at 98000 and in Gode zone at 19,900.

(political, policy-related, socio-economic, natural and demographic) that have occurred simultaneously and successively. Table 6.1 above shows that Ethiopia has suffered from recurrent food crises and famine conditions over time. The data also indicates that the geographic distribution of famine was concentrated in the northern, central highlands and lowlands (Lautze and Maxwell 2007: 223). Earlier famines in Ethiopia particularly prior to the 1970s have been solely confined to the northern parts of the country, which are historically prone to food crises and famine (Dessalegn 1991: 14). In a similar manner, the food crises that occurred over time have also been concentrated in these regions. However, after the 1970s, famines have started spreading towards other regions of the country Ogaden (Somali) and Hararghe (Oromia) regions (Sen 1981). Further, the post-millennium food crises and famines have shifted towards wider parts Oromia and SNNPR, which historically have been considered less vulnerable to food crises and famines in the past (Degefa 2005: 126; Lautze and Maxwell 2007: 230).

Figure 6.1: Geographic distribution of food crises and famine in Ethiopia since 1950



Source: DPPC/UNOCHA reports; Devereux (2000b, 2001a: 118); Kaiser (2003); Salama *et al.* (2001).

6.3 Overview of emergency food aid in selected regions of Ethiopia, 1995–2011

The humanitarian and emergency food assistance appeal documents from the Disaster Prevention and Preparedness Commission (DPPC) of the Government of Ethiopia from 1995–2011 indicate the scale of people becoming vulnerable to chronic and acute food insecurity, and the required emergency food aid in Ethiopia in general and in southern Ethiopia in particular. Table 6.2 presents the trend of a growing number of vulnerable people identified as needing emergency food over the past 17 years across the four biggest regions in the country. The data indicate that the total number and the percentage of the regional population who required emergency food aid showed a sudden increase in 2000, 2003 and 2008 across all four regions. The average percentage of population requiring emergency food aid in SNNPR post-millennium is not as great as in Amhara and Tigray regions. However, given the historical food crises and famine situation in the latter two regions, it is not a surprise that the situation is worse there. Further, since 1999, with the exception of 2007, compared to the other three regions, the number of vulnerable people requiring emergency food aid in southern Ethiopia has shown an increasing trend. Overall, however, the total number and the percentage of the regional population that required emergency food aid across all regions have shown a slowing trend since 2005. It should be noted that, since 2005, the Ethiopian government, in partnership with donors, has introduced a large-scale Productive Safety Net Programme (PSNP) countrywide, reaching over 8 million people per year in some years, and the latest figures indicate that in 2012 the number of PSNP beneficiaries has decreased to 7.5 million (Ellis and White 2012: 4). This programme will be discussed further in Chapter 7.

The humanitarian appeal documents of the Government of Ethiopia and development partners have also indicated that the reasons for the increasing food insecurity and the subsequent increase of emergency food aid needs were mainly due to the failure of seasonal rains in different regions of the country.

Table 6.2: Number and percentage of vulnerable people requiring emergency food aid in selected regions of Ethiopia, 1995–2011

Year	Regions							
	Amhara		Oromia		SNNPR		Tigray	
	No. of people requiring food aid	Percentage of regional population	No. of people requiring food aid	Percentage of regional population	No. of people requiring food aid	Percentage of regional population	No. of people requiring food aid	Percentage of regional population
1995	1,201,600	9	902,000	5	822,000	8	764,400	24
1996	868,000	6	395,400	2	361,400	3	751,200	23
1997	822,120	5	547,780	3	331,700	3	675,000	20
1998	2,022,200	13	709,614	3	N/A	0	1,201,000	34
1999	2,786,803	18	1,562,451	7	725,617	6	998,439	28
2000	3,569,820	22	1,902,824	9	1,410,008	11	1,717,756	47
2001	2,130,000	13	1,129,000	5	869,800	7	938,500	25
2002	1,724,800	10	1,051,1400	4	303,300	2	917,200	24
2003	3,958,500	22	4,150,100	17	1,586,500	12	2,131,900	53
2004	2,000,000	11	1,556,700	6	873,700	6	1,107,000	27
2005	114,610	1	500,004	2	325,998	2	391,844	9
2006	154,7000	1	733,780	3	35,910	0	0	0
2007	87,600	0	131,500	0	38,800	0	0	0
2008	814,572	4	1,521,590	5	1,485,396	9	601,435	13
2009	995,095	5	683,839	2	881,739	5	674,304	14
2010	994,800	5	1,088,903	4	852,020	5	641,949	14
2011	420,045	2	1,889,267	6	252,236	1	399373	8

Sources: DPPC/DPPA/DRMFSS and UNOCHA annual humanitarian appeals and reports 1995-2011.

6.4 Comparison between the 1984 famine and the *green famine* of 2007–08

This section maps the theoretical and causal similarities and differences between the 1984 famine and the *green famine* of 2007–08 in southern Ethiopia.

6.4.1 History of famine in the study area

Except for the famine of 1984, people in the study area had not experienced famine situations before. During the field research, local people, particularly the community elders, both men and women, were asked to recall the times when the area/their particular *woreda* was affected by a famine situation. During the community focus group discussions and numerous *ad hoc* consultations, the elders said that they experienced food crises and normal seasonal hunger over the course of years of different scales and magnitude. But no famine situation (which they would call *yewulle* or *udufunne*) was indicated (except 2003 and 2008). They said that localised hunger often happened due to seasonal rain failures or disease outbreaks on crops, but they managed such temporary crises without external support through the adoption of different types of reversible coping mechanisms. The community members recalled that the 1984 famine was their first experience of famine and further indicated that more recently they suffered famine situations in 2003 and 2007–08. However, it was said that the 2003 famine was slightly different and less severe than the 2008 famine. The response from a group of women in Ashira *kebele* shows how the 2007–08 *green famine* was different from others:

‘The most serious food crisis that affected this community in the last 15 years was the 2007–08 famine. This was the worst by any measure. It was more serious and caused more suffering compared to all other previous famines and it also made us less resilient. For instance when death occurred, families did not even announce the situation and performed the burial ritual secretly’ (FG-KB/AS-CEW/12/02/2011).

In Kambata culture, it is very important to organise an appropriate and elaborate funeral ritual when someone passes away; all the relatives are invited from near and far to attend the ceremony and the family of the deceased is responsible for preparing food and drink for everyone who attends the funeral. Further, the close relatives, particularly brothers-in-law and sisters-in-law, of the deceased are expected to bring a sack of maize, wheat or other types of cereal grain to the deceased family. This is a critically important and much appreciated cultural practice among the Kambata ethnic groups. However, as the overall food security situation was extremely poor during the *green famine* period in 2007–08, people could not

follow this important tradition. Failing to perform such important cultural ceremonies is regarded as shameful and culturally and socially unacceptable. In Kambata the failure to perform such ceremonies not only indicates the severity of the famine situation, but also is used by local people to distinguish general hunger and famine.

Table 6.3: Comparison of characteristics of the 1984 and 2007–08 famine situations in the study area as identified by community groups

1984 famine	2007–08 green famine
Triggered by drought	Triggered by drought and other interlinked vulnerability factors
The price of food was reasonable	Market dynamics, particularly the price hike, played a triggering role. 'There was less money in our pocket and there was no food at market. The price of food was unreachable.'
Social support available: 'One could call upon friends and relatives for food support/loan.'	A collapse of social support occurred. 'There was no one to call upon for food and support.'
'One could depend on enset for long times and if he/she doesn't have matured enset, he/she could access through borrowing from relatives and friends.'	'There was less and immature enset and that could not support household food needs. People became more greedy and self-centred.'
'It was only the poorest of the community with fewer livelihood assets (physical, social, financial, political etc.) who were affected severely.'	'It affected everybody'. ' <i>Hundannka dedek aafe gorru/yewulitta</i> ', literally a famine that affected everyone across the wealth groups
'Mortality was high for both people and livestock; however it was severe among the poorest of poor.'	'Less people and livestock death, but more people suffered from the experience.'
'It was a more visible and recognisable famine and it occurred across the nation. Government even moved those who were affected by force to the <i>seffera</i> (resettlement sites).'	'Silent famine. Arrived Slowly, happened in a deceiving way. It has gained momentum before it burst. It deceived the community not to look for escaping mechanism before it burst thus we called it a deceiving famine (<i>malach aaggo udufuunita</i>).' Women groups described it as ' <i>Huundanka mexxu asse gorru</i> ': a famine that has made all equal despite wealth levels and social differences
'Poor coordination and slow response ... more focus was given to the areas considered as the epicentre of famine in the north. Food was delivered but there were no emergency feeding centres.'	Very good coordination once the news came out through the international media and the response was well coordinated; as a result it was possible to avoid severe mortality. Emergency feeding centres were established to treat severely malnourished children
'It was a killing famine. Many people have died as a result of the famine situation and poor external support.'	'It was a swelling famine. Many children, pregnant and lactating mothers have shown a sign of swelling [oedema] on their legs and bellies.'
'The majority of people in the area were not so vulnerable and they had a better shock absorbing capacity.'	The majority of people were already at the edge due to persistent shocks that have had happened over time. ' <i>Lenkenkin fandeme</i> ': we were already shaken before it happened.

Source: Author's fieldwork, 2011.

6.5 The debate about famine and famine mortality: perceptions and accounts of affected people vs. external actors

As discussed in Chapter 4, there are still divergent views regarding what exactly qualifies a given food crisis as ‘famine’ and when exactly to adopt the term ‘famine’ thus different actors apply the term at different stages of food and humanitarian crises (Edkins 2000; Lautze *et al.* 2003: 101; Howe and Devereux 2004). For instance, donors view famine as an event that results in mass starvation and mortality (often recognising the crisis only after it has resulted in excess mortality through media and assessment reports), while governments often refrain from using the ‘F’ word altogether, even when the scale and magnitude of the crisis indicate otherwise. Experts and aid agencies look into ‘objectively and statistically measurable anthropometric indicators for malnutrition and use assessment reports consisting of acute malnutrition and mortality rates’ (Howe 2002: 21; de Waal 2007: 91). Hammond and Maxwell (2002:268) even went further in describing how the presence of higher mortality is considered as the strongest trigger factor to declare a food crisis and emergency as a famine as:

...whether an ‘emergency’ is broadly perceived by the international community to be a ‘famine’ depends not on the damage to livelihoods, the level of migration, or even the prevalence of malnutrition. It depends on the level of what is politely termed ‘excess mortality’.

But famine victims view it as a continuous process of ‘destitution and failure of coping strategies and failure of social support systems’ (de Waal 1989: 76; Deng 1999: 9). Howe (2002) argued that such lack of consensus and uncertainties pertaining to the term famine often leads to a delay in responses and actions by responsible agencies and actors, and subsequently this causes more suffering for the victims. But, the fundamental question remains, paraphrasing Chambers (1997), ‘whose’ definition counts or is appropriate? How can all actors find a common ground to talk the same language? Why is the victim’s perception given less weight than quantifiable indicators of famine? These questions will be analysed and discussed in detail later in this chapter.

In famine analysis and humanitarian responses, anthropometric and mortality results, are widely used as direct and proxy indicators to define the severity of the food crisis and malnutrition. However, they do not yield a true picture of the causes of malnutrition or mortality since these are not necessarily related to a lack of food per se but are attributable to a host of other contributing factors (Young and Jaspars 1995). Yet, there is an ongoing debate on whether famine can occur without significantly causing excess mortality or whether famine by definition always results in excess mortality (Howe 2002; Lautze *et al.* 2003).

As discussed in Chapter 4 and above, the Kambata community has its own way of perceiving, understanding and defining hunger and famine. Famine is seen as a more complex process that often lasts for months as the affected people continue to suffer silently and slowly. Like other rural communities in Africa, they see famine as a process that breaks down the informal social safety net of society and causes heavy strain on the coping capacity of their livelihood systems, bringing subsequent destitution. In their classification, there is a killing famine (literally *shanno gorru*) and a swelling famine (*yewulsanno gorru*). Accordingly, death (*rehuut*) arrives only at the final stage of the process and hence, they can experience famine without large-scale mortality (see De Waal 1989; Deng 1999:7-9).

A wide spectrum of respondents were interviewed to capture multiple perceptions about the issue of food crisis and to understand whether the 2007–08 crisis had reached a famine level or not. The answers varied widely. However, communities and famine-affected people who experienced the effects of the crisis first hand labelled it famine without necessarily experiencing excess mortality in their households. When asked, ‘Recall the years in your life time that this community was affected by famine. What do you recall about those years?’ the following responses were provided:

‘We faced famine in 1984. In the last 15 years, this community has suffered some notable food crises (*gorri dolla* – hunger years) and famines. The most prominent one was in 2007–08. During that time, many people suffered and some died due to famine. Food was in the markets, but the prices rose sharply and became unbearable, so we spent everything we have to buy food’ (FG_KB/ME-CEM/03/02/2011).

‘Except the 1984 and 2007–08 starvation and hunger, we have never faced serious years, as we are a people who always depend on onset. We haven’t fully recovered from the effects of the 2007–08 yet, including our livestock’ (FG_KB/ME-CEW/04/02/2011).

‘This community suffered from two major famines in the past three decades or so. The first was during the regime of Derg in 1984, and the last episode of famine was in 2008’ (FG-KB/AS-CEW/12/02/2011).

‘In 1984, 2003 and 2007–08 ... the crisis of 2007–08 was a serious famine (or *udufunitta*); however due to the coordinated and rapid medical and relief interventions from aid agencies and government, large scale death and migration was prevented’ (FG_KG/AD-CEW/24/02/2011).

'I have experienced a famine twice in my life. The 1984 famine was severe, but I had enset in my backyard and we relied on it for food. By then, I was also able to seek support from my brother and other close relatives in *degga* (highland) *kebeles* for wheat. However, the 2008 famine was worse because it broke our bridge (support system and enset and sweet potato). It has left very bad scars in my life, as I lost my child' (CS_KB/AS-02/17/02/2011).

The above comments from community members clearly indicate that they experienced a food crisis situation in 2003, and a famine situation in 1984 and in 2007–08. For the sufferers of famine it was not the number of deaths that have occurred due to a situation that classified a food crisis as a 'famine', but the overall experience of having nothing and being unable to be supported by their close relatives and patrons when they needed them most. It is the feeling of helplessness that counted significantly. The responses also indicate the difference between food crisis and famine. Despite its severity, during a food crisis the social support system still functions and people can claim their transfer entitlements, whereas during a famine these institutions have partially or completely collapsed. As one of the informants affected by *green famine* in 2007–08 reflected:

'It was during the middle of the famine that I woke up and knew that there was nothing at home that I could give to my children tomorrow or the coming days ahead. I was in a total state of confusion and contemplated to kill myself rather than seeing my children crying for something to eat while there is nothing I can give them at that moment' (FG_KB/AS-VCG/15/02/2011).

Famine is a situation when people are left with no options for dealing with it. It is also a psychological state of distress that people go through during the crisis situation. As Mesfin (1984: 9) noted, famine is inherently different from food insecurity and hunger. Famine is 'a socio-economic crisis with profound consequences for the economic and social fabric of a society'.

Despite famine victims and local people defining the experience of 2007–08 as a famine, the government did not declare it to be one. In a similar manner, despite the severity of the situation, donors also downplayed the severity of the crisis and declared it to be 'normal food shortage crisis' in the southern parts of Ethiopia during 2003 (Lautze *et al.* 2003) and 2008. Can a *green famine* be categorised as 'famine' as described both by the victims and non-affected people in the area or it is rather a localised food crisis as defined by outsiders? Whose definition counts? In order to understand and classify the food crisis or *green famine* in the K-T

zone of southern Ethiopia, this research uses different famine scales in combination with local indicators and information.

6.6 Famine measurements and scales

The concept of measuring and classifying food crisis and famines is not a new development in the global food security and research arena. Over the last three decades, ‘comprehensive and universally valid food insecurity/crisis indicators’ and measurements have been developed (Maxwell *et al.* 2008: 534). However, despite longstanding efforts, developing a famine scale and measurements that apply globally across different livelihood, economic, social, cultural and political contexts has remained a major challenge. Currently there are two famine scales and indicators that have been developed and are widely applied across different institutions and actors to define and classify food crises and emergency situations as famine or not.

6.6.1 Integrated Food Security Phase Classification (IPC)

The Integrated Food Security Phase Classification (IPC) scale is a comprehensive food security and famine analysis scale that was developed by the Food Security Analysis Unit (FSAU)³¹ of the United Nations Food and Agriculture Organization (FAO) in Somalia in 2004. Drawing mainly on the earlier food insecurity and famine classification systems and scales (e.g. Darcy and Hofmann’s (2003) food insecurity classification method, Howe and Devereux’s (2004) famine intensity and magnitude scales, USAID’s FEWS NET (2005) and MSF’s nutrition guidelines (2000), the IPC particularly aims at developing a classification system with indicators and thresholds that are ‘quantified, internationally accepted and comparable over space and time’ (IPC Global Partners 2008: 9). After its successful launch in Somalia, the IPC scale is being rolled out in many other African countries and recently it was used in the 2011 Greater Horn of Africa crisis, when it was applied to classify and declare the situation in Somalia as ‘famine’ (IPC Global Partners 2012; Checchi and Robinson 2013).

The IPC version 1.1 classifies the area/livelihood zone and the severity of corresponding acute food insecurity situation into five phases on scales 1 to 5 (IPC Global Partners 2008: 4). Phase 1

³¹ FSAU, now called FSNAU after merging with the Nutrition Analysis Unit in 2009, is a multi-donor-funded project managed and implemented by the FAO (Hillbruner and Moloney 2012: 1)

represents –generally food secure, 2 – moderate /borderline food insecure, 3 – acute food and livelihood crises, 4 – humanitarian emergency, and 5 – famine. The IPC scale uses the following criteria to define ‘phase 5’-famine:

- A minimum of 20 per cent of the total population of the area/country faces extreme food deficits and very limited ability to cope; and
- Representative malnutrition survey results indicate the prevalence of acute malnutrition (GAM) of above 30 per cent and Crude Mortality Rate (CMR) exceeds 2/10,000/day
- Further, IPC looks into the situations of rapidly increasing destitution, the prevalence of hunger-related diseases, large-scale displacement of affected people from their places in search of food and effectively complete loss of livelihood assets and collapse of informal social networks (*ibid.*: 4).

Since its inception, the IPC scale has been accepted by different stakeholders and institutions including FAO, WFP, USAID’s FEWS NET, JRC-EC, regional organisations and leading humanitarian organisations (OXFAM, Save the Children and ACF International) (IPC Global Partners 2012: 3). The arrival of the IPC on the scene of food security and famine classification has helped to improve the overall understanding of famine progression process and narrow a gap that exists in food insecurity and famine thresholds that are applied by different actors. Further, IPC classification scale looks into multiple causes and indicators of food insecurity and famine by introducing ‘the concept of convergence of evidences’ stemming from areas of food access and availability, nutrition, health, water, vulnerability, hazards, civil security, destitution and displacement, livelihoods situation in its phase classification (*ibid.*: 17).

As noted earlier, the association between famine and mortality is a contested and divisive area that continues affecting famine classification and response. Hence, there is no internationally accepted and agreed upon thresholds of ‘malnutrition and mortality rates that clearly define the onset of famine’ that can be applied in different livelihood, social, economical, political contexts (Howe and Devereux 2004: 359). Literature on thresholds of emergency and famine mortality reflects that there has not been a significant revision undertaken since the 1990s and the current famine mortality threshold (CMR >2 persons/10,000 people/day) widely adopted by the IPC, UN agencies and other actors is based on the estimates of the Toole and Waldman in 1990s who suggested a threshold of CMR of >1/10, 000/day for declaring an ‘emergency level’. The normal/baseline CMR for sub-Saharan Africa by then was 0.44/10,000/day, thus they considered the doubling of the baseline as emergency (Checchi and Roberts 2005: 7).

For instance, the United Nations Standing Committee on Nutrition defines the threshold of CMR 2/10,000/day 'a severe situation' (SCN 2004: 37) whereas the United Nations Refugee Nutrition Information System (RNIS) (2000) cited in (Howe and Devereux (2004: 359) defines a situation as 'emergency out of control' when the CMR reaches >2/10,000/day. In contrast, Howe and Devereux (2004: 362), in their famine intensity scale, suggested a threshold of CMR ≥ 1 but <5/10,000/day as 'famine conditions'. In contrast, Hakewill and Moren (1991: 24-28) suggested significantly higher thresholds of CMR of 5/ 10,000 per day than all the writers and institutions discussed above to declare a famine. Drawing on these various sources, the IPC attempted to establish 'standard and widely applicable' anthropometric and mortality cut-offs, for different stages of food insecurity and famine (Young and Jaspars 2009: 26).

Despite its contribution in food security and famine classification, the IPC scale has significant limitations and thus might not be the right measurement and appropriate scale to capture and reveal the prevailing food crisis and the severity of *green famine* in Ethiopia. These limitations include the following:

(1) Despite the IPC claims that nutrition indicators do not have an outright weight in classifying the crisis situation, it gives more weight to anthropometric and mortality indicators with no recognition of the victim's perception. However, as discussed earlier malnutrition is a 'trailing indicator of food insecurity', hence heavily focusing on it in classifying a situation recognises the crisis too late and potentially affects the response by concealing the slow progression of destitution and famine until the malnutrition rate reaches the accepted threshold (Howe and Devereux 2004: 360).

Further, conducting scientific and standardised nutrition surveys requires very elaborate logistic provisions and human and financial resources in place, which are often in short supply in the rural Ethiopian context. Even if some *ad hoc* nutrition survey reports exist, accessing them can be very difficult, and often it is impossible to get validation from the government authorities to publish and use the results. I have experienced this during my research fieldwork at different levels where the famine mortality figures were not made available and authorities were not willing to talk about any deaths related to famine. For instance, during the 2003 famine situation in Ethiopia, when the then head of DPPC was asked by an IRIN journalist (on 11 December 2003) about the number of deaths due to hunger, he said:

We are not trying to hide facts – but we do not have concrete information related to lives lost because of lack of food, of emergency health (assistance) or lack of water assistance. There are

people who have lost children or their lives, but we do not have figures for that (cited in Degefa 2005: 126).

In a similar situation a senior food security expert and emergency coordinator in the study area during the 2008 *green famine* situation, when asked about the mortality figures in the area during the fieldwork of this study, responded:

‘As an emergency coordinator, I have seen many children particularly the under five years of age, die in the emergency feeding centres established during the crisis period of 2008. I would say we were losing two to three children per day. I have photos and reports about the incidences. However, when I presented the report to the zone administration and food security task force, I was told to hand over both the photos and the report to them (zone administration) and never talk to the local and international media about it. So, I am not going to give you further details on this’ (KI_KT/Z-FSEW/20/02/2011).

This evidence clearly shows the existing political and statistical difficulties in relying on and using quantitative indicators for crisis and famine classification.

(2) IPC classifies the severity of a food crisis situation into five distinct phases and does not recognise famine until the crises reaches the final phase (see Table 6.9 later in this chapter). Such a classification has critical implications and consequences. First, having multiple phases and labelling system creates the potential for delay, providing an excuse for actors not to respond on time (Howe 2002). Second, waiting until these thresholds have been reached only increases the suffering of the victims while the situation is intensifying and affecting more lives and livelihoods.

(3) The IPC standard cut-off references for the famine phase for the prevalence of GAM (>30 per cent) and CMR (>2 persons/10,000/day) are excessively high and may not be applicable in the cases of slow-onset famine situations where the government and NGOs are readily available to take rapid action. Defining only these outcomes as a famine and acceptance of lower thresholds as *emergencies* promote the discourse of ‘normalisation of crisis’, which has become a challenge in famine management and response (Bradbury 2000).

In summary, due to the limitations mentioned above, the applicability of the IPC in different contexts and its use as a famine classification and management is very limited.

6.6.2 Howe and Devereux famine intensity and magnitude scales

Howe and Devereux (2004: 353) introduced their ‘famine intensity and magnitude scales’, which reviews the intensity and the magnitude of a given food crisis and help to identify and categorise it into different levels of famine. The *intensity* refers to ‘the severity of the crisis at a given location and point in time, whereas the *magnitude* looks into the aggregate impact of crisis’, which is normally assessed once the tide of famine has reduced or in retrospect. Howe and Devereux’s magnitude scale also has five categories but here designated by letters and the categorisation is based on the total mortality that occurred during the crisis:

Category A – minor famine with a mortality range of 0–999, Category B – moderate famine with a mortality rate of 1,000–9,999, Category C – major famine with mortality range from 10,000–99,999; Category D – great famine with mortality of 100,000–999,999 people, and the highest one is category E – catastrophic famine with an estimated mortality rate of 1,000,000 and above (Howe and Devereux 2004: 365).

In principle, this famine scale is similar to the IPC scale as it focuses on anthropometric and mortality indicators to analyse the famine situation and establishes the intensity and magnitude of the situation (see Table 6.9). However, this scale identifies and proposes giving more weight to ‘subjective’ indicators of food crisis, such as coping strategies adopted by people during the crisis, along with food security and livelihood descriptors such as social system and market situations (Rubin 2009: 283). It also suggests that in order to determine the intensity of a given food crisis, one should use a mix of both objective and subjective indicators rather than looking at the anthropometric indicators only. This is a great contribution and starting point to narrow the existing confusion about famine and famine measurement. The inclusion of these aspects helps to better understand the social dimension of famine effects.

Unlike the IPC, the intensity and magnitude scales were developed purely to measure and classify famines. However, like the IPC scale, they have their own limitations, as they heavily rely on anthropometric/mortality indicators to determine the intensity of the crisis and give little or no weight to the perception of famine victims in its analysis. Further, like the IPC, this scale also divides the phases of crises and famine into five categories, and, as discussed above, having so many phases negatively affects potential response and also reinforces ambiguities between food crisis and famine level. Despite Devereux and Howe’s famine magnitude scale proposing a *reduced threshold mortality range* to declare a situation as a famine, their intensity scale endorses *higher thresholds of anthropometric outcomes* than those used by other agencies (see Table 6.9).

In summary, the existing famine scales heavily rely on quantifiable indicators with less attention towards the experience and perceptions of the victims. In particular, the views of people suffering famines are rarely considered in famine classification. As de Waal (1989: 18) observed, these famine scales are influenced by a general understanding of famine as ‘a technical malfunction ... looking on externally quantifiable change of state among population such as malnutrition rates, mortality ... rather than a *social breakdown*’ (emphasis added). The conventional famine measurements that rely heavily on malnutrition outcomes and mortality rates during the crisis situation do not explain the full extent of the situation. Given its complexity and multidimensionality, some writers (e.g. S. Maxwell 1996: 160; Carr 2006: 18) have advocated the advancement of postmodernist thought in food security analysis and measurements.

6.7 Nutritional indicators of *green famine*

Despite there being no commonly agreed thresholds among the circles of international nutrition experts, the results of nutritional surveys and assessments are widely considered as ‘objective indicators’ of the state of food insecurity and provide a comparable and universally acceptable famine measurement (Howe and Devereux 2004: 359; Young and Jaspars 2006: 12). As a result they have become a central parameter in famine analysis, study and response over time (De Waal 1989). Acquiring any consistent and high-quality data is a chronic problem in Ethiopia and it is even more complicated when it comes to data related to health and nutrition in food crisis and famine situations. However, despite such complex challenges, in the context of Ethiopia, health and nutrition survey results have remained critical and the ‘strongest trigger to arrive on a decision whether it is a food crisis or a famine and response for the government and donors’ (Anderson and Choularton 2004: 13). As noted earlier, during the fieldwork, I have attempted to access available emergency assessments and mortality reports from the *woreda*, zone and regional levels but the officials refused to provide due to the political sensitivity of the issue. Further, accessing emergency nutrition assessment reports undertaken by NGOs in the study area has proven very difficult. For instance, during the beginning of the 2008 *green famine*, Doctors without Borders (MSF) conducted a rapid nutrition assessment in Kacha-Bira district, one of the hardest-hit areas. However, the regional and central government banned the circulation of the report and its results, and issued a stark

warning to the agency.³² Similarly, as some international media reported during the famine, ‘the government has banned photographs of the starving and has told field workers not to give information to foreign journalists’ (*Economist* 2008).

Table 6.4: Selected nutrition survey results in K-T zone, 2003–08

Survey area	Date	GAM (z-scores, 95% CI)	SAM (z-scores, 95% CI)	Oedema %	Mortality /10,000/day	
					CMR	Under 5
Kadida-Gamela	Dec. 2003***	8.3% (6.6%–10.4%)	1.1% (0.6%–2.2%)	N/A	0.39	0.73
	May 2006**	8.5% (6.7%–10.4%)	1.3% (0.6%–2.1%)	0.8%	0.31	0.89
	Jun. 2008*	10.7% (8.4%–13.1%)	2.3% (1.3%–3.3%)	N/A	0.48	0.54
Tembaro	Jun. 2003**	13% (10.0%–16.4%)	1.7% (0.4%–2.6%)	0.4%	0.25	0.4
	Mar. 2004**	10% (7.5%–13.3%)	1.8% (0.9%–3.7%)	N/A	0.8	3.05

Note: *Survey undertaken by RENCUS/Samaritan's Purse ** by World Vision Ethiopia and *** by Save the Children-US (SC-USA)

N/A data are not available.

GAM: below <80% of the mean or <-2SD; SAM: below <70% of the mean or <-3SD.

Data source: ENCU survey database 2011a.

The results of surveys undertaken by various NGOs operating in Kadida-Gamela indicate the prevalence of the global and severe acute malnutrition rates showing an upward trend over a five-year period. In contrast to GAM and SAM rates, the trend of the crude and the under-five mortality rates show a mixed outcome and thus no clear trend emerged. The CMR rate decreased slightly in 2006 and picked up again in 2008 while the under-five mortality rate increased slightly in 2006 and showed a slowing trend in 2008. Even in less conservative estimate of malnutrition and mortality, these figures indicate that the nutrition situation had deteriorated and reached close to the emergency threshold set by the WHO. The WHO declares a nutrition emergency when the prevalence of GAM is >15 per cent, CMR >1/10,000/day and U5MR >2/10,000/day. The causes for the exceptionally high mortality rate for the under-fives in 2004 in Tembaro are not explained in the survey report. The possible

³² Personal communication with UNOCHA emergency team, May 2011.

explanations could be the timing of the survey (seasonality), which coincided with the annual hunger gap and perhaps households had not fully recovered from the 2003 *green famine*. Further, given it is a malaria prone area this might also have played a role in the high mortality.

In addition to the nutrition surveys, World Vision Ethiopia (WVE) conducted rapid assessments/nutrition screenings among the under-five children in three districts in K-T zone in 2008 and 2009 (see Table 6.5). The rapid assessment among children aged 6–59 months in December 2008 using Mid-Upper Arm Circumference (MUAC) measurement in Kadida-Gamela district shows the prevalence of proxy GAM and SAM rates of 28.9 per cent and 0.5 per cent respectively. Similar rapid assessment/screenings conducted in March 2009 in Kacha-Bira indicated an estimated GAM rate of 17.6 per cent and SAM of 1.5 per cent and in Tembaro district the prevalence of GAM and SAM rates of 24.9 per cent and 2.4 per cent respectively (Sisay and Gedion 2011: 53). Here, it should be noted that despite the fact that they are widely used in emergency settings, rapid assessments/screenings are not conducted according to international nutrition survey protocols and their accuracy is often questioned by nutrition experts on the grounds that they do not provide point estimates of GAM/SAM prevalence nor do they establish the crude and under-five mortality rates. However, such rapid screening and assessments during the peak of an emergency can give a reasonable estimate of malnutrition among certain age groups of children and indicate a severely deteriorating food insecurity and nutrition situation. As stated by Young and Jaspars (2006: 15), ‘the results of screening do not provide a reliable population estimate of acute malnutrition, but they do allow an assessment of the potential risk of acute malnutrition’.

Table 6.5: Summary of nutrition screening results in selected districts in K-T zone during and after the *green famine* periods

Name of ADP/district	ADP total population	Total 6–59 months	GAM	SAM	When data collected	Data source
Kacha-Bira	142,221	19,643	17.6%	1.5%	Mar. 2009	Rapid nutrition assessment
Tembaro Omo/sheleko	204,571	34,771	24.9%	2.35%	Mar. 2009	Rapid nutrition assessment
Kadida-Gamela Durame	171,968	29,235	28.9%	0.5%	Dec. 2008	EOS mass screening

Note: ADP = World Vision Area-based Development Programme; EOS = extended outreach strategy.

Source: Sisay and Gedion 2011: 53.

6.8 Trends in admissions to therapeutic and supplementary feeding centres

Since its establishment in 2000 under the DRMFSS, the Emergency Nutrition Coordination Unit (ENCU) has undertaken various tasks such as coordination of emergency nutrition assessment and quality assurance, collection and analysis of the data on admission trends of new severe acute malnutrition cases to the emergency feeding centres, collection and collation of reports and results of nutrition surveys conducted throughout the country and nutrition information database (Anderson and Choularton 2004; Manyama *et al.* 2011: 32). Table 6.6 shows trends in admission of malnourished children to the Therapeutic Feeding Programme (TFP)³³ centers in the study area since 2008 and associated death rates.

Although these figures (Table 6.6) are officially published, validated and obtained from government agencies, care should be exercised for analytical purposes. There is a general trend of underreporting from government agencies about malnutrition and mortality rates associated with hunger and famine. This has historically been a significant process and dates back to the Imperial times in the 1960s and 1970s (see also Dessalegn 1991: 101-102 for the 1974 famine). During the 1966 Wollo famine local administrators and governors would often present good news and reports to the emperor despite the large number of peasants facing starvation. As Mesfin (1984: 107) succinctly described:

³³ A malnutrition treatment program that combines both in-patient (TFU) and out-patient (OTP) therapeutic feeding for severely malnourished children. It runs by the Ministry of Health of Ethiopia and INGOs in different regions of the country (see more Chamois 2011: 38).

Officials of the government were preoccupied more with competition for the favour of the Emperor rather than with carrying on their administrative functions. So, it was difficult for [them] to transmit information that might displease the Emperor. In their desire not to displease the Emperor, the Ministers often presented the problem of famine with extreme caution and understatement.

Table 6.6: Trends in admission of malnourished children to the Therapeutic Feeding Programme centres in three districts in K-T zone, 2008–10

District	Years	Total annual admission	Total cured	Total deaths
Kacha-Bira	2008	4,187	1,549	57
	2009	514	370	N/A
	2010	229	106	3
Tembaro	2008	4,119	1,496	33
	2009	1,679	1,157	0
	2010	568	550	0
Kadida-Gamela	2008	764	631	8
	2009	512	465	0
	2010	875	834	0

Source: ENCU TFP database 2011b.

It was astonishing to witness almost the same attitude in the twenty-first century among government officials at different levels after all the lessons were learned about early response and ability to defer deterioration and prevent famine. Unless the crisis is very critical and media outlets capture the situation, government officials are hesitant to report the actual situation particularly in the current decentralised, ethnically based regional system where reporting such situations does not look good for the leaders of those regions.³⁴ As noted above, establishing mortality outcomes during famine situations could prove challenging, particularly in a slow-onset famine situation like *green famine*, which silently and slowly affects and claims lives before it reaches the news.

Famines that have occurred in the recent past (millennium and post-millennium), such as the Ethiopia famine in Somali region in 2000 (Salama *et al.* 2001), the Malawi famine of 2002 (Devereux and Tiba 2007), Ethiopia *green famine* in SNNPR in 2003 (Kaiser 2003) and the Niger famine in 2005 (Reza *et al.* 2008; Rubin 2009), show recorded mortality rates below the pre-millennium famine mortality rates. The factors attributed to a lower mortality rate in the case of the post-millennium famines are the significant improvements in emergency response

³⁴ Personal communication with regional WFP regional team, July 2011.

mechanisms (logistics, communications, early warning systems, human resources, pre-positioned strategic food reserves in country), technological advancement in malnutrition treatment and availability of ready to use therapeutic foods (RUTF), essential drugs, and existence of local and international NGOs at post and readily available to respond.

Overall, in the case of most recent large-scale food crises and famines that have occurred in Africa, starvation deaths and excess mortality were lower as compared to the pre-millennium famines (see Table 6.7). However, in the Somalia famine of 2011, the mortality rates were considerably higher than in the other three post-millennium famines. A contributing factor to this was the limited humanitarian access to severely affected areas because of the ongoing conflict and violence between Al Shabab, the Islamist insurgent movement, and national and external security forces (Haan *et al.* 2012: 78).

Table 6.7: Comparison of estimated mortality of selected pre- and post-millennium famines

Pre- millennium famines		Post-millennium famines	
Country affected and year	Estimated mortality	Country affected and year	Estimated mortality
Ethiopia 1984	600,000–1,000,000	Ethiopia (2000)	98,000
Nigeria (Biafra) (1968–70)	1,000,000	Ethiopia (2003)	21,795 ³⁵
Rwanda (1943–44)	300,000	Malawi (2002)	46,000–85,000
Somalia (1991–93)	400, 000	Somalia (2011)	244,000–273,000

Sources: For Nigeria, Rwanda and Somalia 1991–93 (Devereux 2001a), Ethiopia 1984 (Dessalegn 1991 and Kumar 1990), Ethiopia 2000 (Salama *et al.* 2001), Ethiopia 2003 (Kaiser 2003), Malawi 2002 (Devereux and Tiba 2007), Somalia 2011 (Checchi and Robinson 2013).

6.9 Household coping strategies as indicators of the severity of famine

Generally, there are two competing schools of thought on the potential role of coping strategies as indicators of the severity of food crisis and famine. Advocates of coping strategies (Corbett 1988; Walker 1989; Devereux 1993a; Cuny 1999; D. Maxwell 1996: 300; Coates *et al.* 2006) argue that they can help to capture social aspects of famine and ‘vulnerability that are very important in understanding food security’ and famine, but are often not captured by famine analysis and study. Thus these authors push for the greater inclusion and recognition of coping strategies in famine classification, measurement and response.

³⁵ The 2003 crisis was not declared as a famine by the Ethiopian government despite the severity of the crisis indicates otherwise. See Andersen and Choularton (2004: 12) and Kaiser (2003: 7).

Maxwell *et al.* (1999: 411) advocated that the severity and frequency of household coping strategies could be the best 'alternative indicator to the conventional indicators'³⁶ in measuring the state of household food security, and, further, offer an insight into identifying sources of livelihood vulnerability'. In their recent work on the reduced coping strategy index (rCSI), Maxwell *et al.* (2008), based on 14 studies in ten different countries in Africa investigating common coping strategies applied in the face of a food crises, reached the following conclusions regarding the potential applicability of CSI across different contexts: 'cross-contextual comparison using the CSI as an indicator is indeed possible, and the results should adequately correlate with other food security indicators' (*ibid.*: 538).

In contrast, the counter school (Davies 1993; Swift 1993) argues that coping strategies are late outcomes/trailing indicators of a food crisis, and tend to change according to the type and magnitude of stress, and thus cannot be used to gauge the severity of a situation. Further, Swift raised reservations arguing that household coping strategies could not be good predictors of impending food crisis and potential famines due to their inherent complexity and contingent nature (Swift 1993: 14). On a similar note, Davies (1993:67) argues that coping strategies are not similar across different livelihood groups and the type of strategy considered as 'unusual' by one group can be 'normal' by others hence this limits its applicability.

Corbett (1988) identified and categorised the types of coping strategies in the order that households employed them when facing food crisis and famine into three stages: (1) insurance (adaptive), (2) disposal of productive assets, and (3) destitution and mass migration. Further, she argued that the different stages of coping strategies adopted by households not only help to understand the severity of the crisis but also help to indicate the onset of a famine situation in a given locality and livelihood zone. She described this as follows:

Such 'distress sales' [irreversible coping strategy] may signal that households have exhausted the range of possible actions open to them for gaining access to food at a smaller opportunity cost. Once a large number of households reaches this second stage in their coping strategies, famine conditions in the sense of severe economic disruption, may be said to have set in' (*ibid.*: 1107).

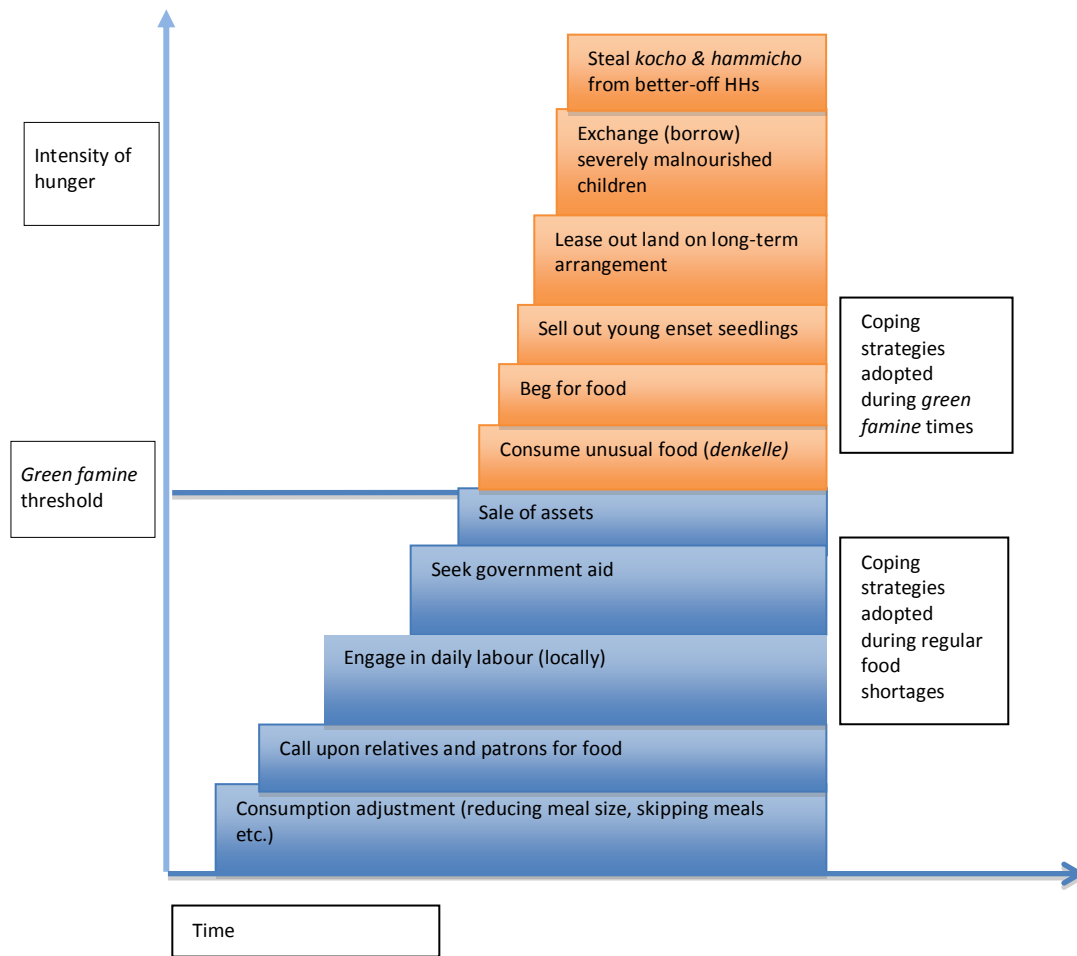
³⁶ The 'conventional' household food security indicators are established by measuring direct and proxy indicators such as food consumption level (2,100 kcal/person/day), dietary diversity and malnutrition status and poverty level (assets and income) of an individual/household. (For more on this, see D. Maxwell 1996; Maxwell *et al.* 1999: 412; 2008: 534.)

Curtis also suggested that households change the techniques or types of coping strategies as the situation and severity level of the food crisis progresses to the next level, arguing that 'households evince fairly specific coping tactics that respond to the three different stages of famine; pre-crisis, progression and zenith of a famine' (Curtis 1993: 6). Similarly, Watts (1983: 434) argued that 'households do not respond arbitrarily to a food crisis for which they are in some sense conceptually prepared; rather they do so serially, with respect to the intensity of what one might call famine signals'.

Apart from the seminal work of Corbett (1988), Watts (1983) and Curtis (1993), Walker 1989, available empirical evidence is very scant on the role and contribution of the types of livelihood specific household coping strategies adopted by affected households as a measurement and indicator of the severity and magnitude of a given food crisis and famine in a given locality.

In this study, communities and *green famine* affected households were asked to identify the differences in coping strategies that have been deployed during a period of 'regular food shortages' and during extreme situations such as the *green famine*. Regular food shortages in this context are treated as less prominent incidences of seasonal food shortages at the household and/or community levels. Figure 6.2 summarises locally adopted coping strategies during regular food shortages and *green famine* periods in the study area. As can be observed, the coping strategies undertaken by households can broadly be divided into two categories: precautionary and risk minimising strategies, and survival strategies. The types of coping strategies employed during the regular food shortage periods are more precautionary and are aimed at minimising risk whereas those employed during the *green famine* period are the 'last resort' decisions undertaken in an attempt to ensure survival. As indicated above, households do not easily arrive at decisions to employ these last resort or survival strategies as they not only affect the current situation but also would undermine the feasibility of future livelihoods and potentially incur a very high economic and social costs. Thus, households try to refrain from taking such drastic measures.

Figure 6.2: Stages of coping strategies



Source: Author's fieldwork, 2011.

Resilient and non-affected households mainly adopted precautionary strategies, while the 'survival strategies' were undertaken by the most vulnerable and famine-affected households. This could be attributed to the fact that resilient and non-affected households have a relatively larger asset base that serves as a cushion against shocks and resultant food crisis, compared to the vulnerable households who have a much weaker asset base and hence coping capacity. Further, the former also have a stronger informal social network system – their extended network of relatives and patrons – that can be relied on in the face of food crisis.

Despite progress made in recognising the role of multiple indicators of food security and famine, the role and significance of famine victims' perception and locally defined coping strategies are still not well recognised and incorporated in famine definition, measurement and classification.

As indicated above, existing famine scales tend to focus on and give more weight to the 'objective indicators' of standard nutrition surveys and assessments estimating a point prevalence of malnutrition and the number of fatalities (crude and under-five mortality rates), rather than the social sides of famine that are often manifested through the responses and coping strategies that are undertaken by the affected households. Anderson and Choularton (2004: 42) correctly captured how FEWS NET opted for 'pre-famine condition' rather than 'famine' during 2003 as:

In practice FEWS NET in Ethiopia was reporting all three types of indicators [vulnerability, imminent crisis and famine]. However, without the anthropometric data that is required by formal definitions of famine, including USAID's, FEWS NET could not make the determination that the situation was a famine.

Similarly, in 2011, the UN and other actors by using the IPC scale upgraded and declared the food crisis in Somalia as a famine only after 'objective and standardised thresholds' had been reached. On 20 July 2011, the UN Resident and Humanitarian Coordinator for Somalia declared the situation in Somalia as a famine, citing the following thresholds as justification: 'Famine is declared when acute malnutrition rates among children exceed 30 per cent; more than 2 people per 10,000 die per day; and people are not able to access food and other basic necessities' (UNOCHA 2011c).

Based on the experience of the recent famine situation in Somalia and previous famines globally, one could safely argue that most food crises that have been upgraded and declared

as famine were solely based on the excess mortality and malnutrition rates that were reported in assessment reports, on television and in newspapers, but not on the local events that lead to the situation. This means, in the absence of such 'objective and standard' nutrition and mortality data indicating the prevalence of acute malnutrition and excess mortality, a food crisis cannot be categorised as a famine based on the response and coping strategies undertaken by famine-affected households.

This study argues that despite their weaknesses as discussed above, localised and livelihood specific coping strategies, particularly irreversible coping strategies, are more relevant and can offer a clear indication about the onset of famine (time) and the severity of famine (scale). Thus, they can help to categorise a situation and whether it has evolved from a food crisis to a famine level. This is because localised and livelihood specific coping strategies are more overt in nature, and easily identified by famine victims who have experienced it. Further, as argued by the advocates of coping strategies, the identification and assessment of community/household-defined and localised coping strategies both in normal and crisis times require less resources and level of expertise and can be undertaken in a short span of time (Maxwell D 1996: 300). As discussed already, households do not easily resort to adopting irreversible coping strategies in case of food shortages and therefore this should be taken seriously in the famine categorisation process. A senior food security expert in K-T zone pointed out that in addition to formal early warning indicators such as market prices, rainfall distribution and crop production, the food security office also uses some coping strategies to predict the food security situation and to differentiate it from common seasonal hunger. He explained as follows:

If the coping strategies fail to fully respond to the food crisis situation, households start adopting abnormal/unusual coping strategies such as selling their productive assets including their farming tools, excessively leasing out land (informally), wandering at public gathering places and market areas with empty baskets/sacks in their hands hoping for begging. Thus, if we notice such unusual responses, we assume that there is a pretty bad situation in the area' (KI_KT/Z-FSEW/20/02/2011).

Thus, as argued by Davies (1993: 67), famine measurements such as poverty and rural development indicators should adopt the principle of 'optimal ignorance' (as advanced by Chambers 1981) that captures minimum yet important indicators. Further, the measurements should focus more on listening to the experience of the sufferers.

In summary, households undertake various coping strategies in the face of food shortages and famine situations. Coping strategies are employed at certain periods of time and they have limits and thresholds to sustain households and to contain a situation. When the severity and magnitude of the food crisis surpasses the capacity of a coping strategy, households adopt one or more irreversible coping strategies and this indicates that the threshold line has already been crossed and a famine process has already begun. If this stage is acknowledged as famine process, it helps to avert livelihood collapse, destitution and unnecessary suffering.

6.10 Measuring *green famine*: Is it a food crisis or a famine?

In this section, an attempt will be made to determine whether the '*green famine*' of 2007–08 would indeed qualify to be described as a 'famine' or whether it was localised food insecurity crisis.

Howe and Devereux's famine intensity scale measures the intensity of a given food crisis through two sets of criteria: anthropometric/mortality and livelihood/food security indicators in the area. As discussed above, the availability of statistically representative data on famine mortality and standardised nutrition surveys during the 2008 *green famine* and in retrospect in the study area is very limited. However, there is a wide array of strong but not statistically representative evidence about the severity of the situation in 2007–08 such as rapid nutrition assessments, the number of people who required emergency food aid and trends in admission rates of malnourished children to the therapeutic feeding centres. Further, subjective indicators such as livelihood specific coping strategies adopted during the 2007–08 *green famine* and the perception and definition of the affected people also reveal the severity of the famine in the area. Table 6.8 summarises subjective indicators and thresholds that qualify the 2007–08 *green famine* as minor famine.

Table 6.8: Subjective indicators of *green famine*, 2007–08

Nutrition and health outcomes indicators	Social support breakdown Indicators	Coping strategies breakdown indicators	Community perceptions indicators
<p>'Yewulsano gorru', a swelling famine</p> <p>'Many children have shown swollen face and limbs' (FG_KB/AS-CEM/12/02/2011)</p> <p>'Because malnutrition was so serious MSF and WVE have established emergency feeding/treatment centres in severely affected <i>kebeles</i> and <i>woredas</i>' (KI_KB/W-FSEW/2011)</p>	<p>'We had no-one to call upon' (FG_KB/ME-CEM/10/02/2011)</p> <p>'We have stopped attending funerals unless it a very close relative and resides in a short distance from us' (FG_KD/AD/CEM/24/02/2011)</p> <p>'We have abandoned paying a contribution to someone who has lost his livestock as every little money we have goes for purchasing food' (FG_KB/AS-CEM/12/02/2011)</p> <p>'Many people have dropped out from local funeral association as they could not afford to pay' (FG_KB/ME_VCG/11/02/2011)</p> <p>'Before, we used to invite our immediate neighbours for a coffee everyday and this is our unique culture. During the famine period we have completely stopped this because you cannot afford to provide snacks/grain with food for your guests' (FG_DG/WG-CEW/26/03/2011)</p>	<p>'Many people have leased their farmland to access cash. This has not been the case during the 1984 famine' (FG_KG/VCG-TG/02/03/2011)</p> <p>'Theft has become widespread. Stealing of <i>kocho</i> was very common and was done by men, which is extremely shameful in our culture. In our <i>kebele</i>, we have heard that two people were killed at night while they were attempting to uproot and steal enset' (FGD_KB-ME/RCG/10/02/2011)</p> <p>'I survived by selling immature enset at Shinshicho market' (CS_KB/AS-CS-01-17/02/2011)</p> <p>'During the winter 2008, <i>denkelle</i> (wild grass) with tea, made from coffee leaves has become our only available food. Before, we used to feed <i>denkelle</i> to our cattle' (FG_KB/ME_VCG/11/02/2011)</p>	<p>'The 2007-08 food crisis was the worst by any measures. It is more serious and caused more suffering compared to all other previous famines and it also made us less resilient' (FG_KB/AS-CEW/12/02/2011)</p> <p>'<i>Illachi, illanchichi kerseha gorru</i> translated ('it is a famine that has separated us from our children and relatives') FG_KB/ME-VCG/11/02/2011)</p> <p>'It affected everybody' '<i>hundannka dedek aafe gorru/yewulitta</i>' (literally 'a famine that affected everyone across the wealth group') (FG_KG/AD/CEW/28/02/2011)</p> <p>'The 2008 famine was even worse than the 1984. Many people would have died if there was no wider support from government and NGOs' (FG_DG/DI-CEM/25/03/2011)</p> <p>'Behaviours and actions considered severely shameful in our tradition and culture have become less shameful and more common. We have witnessed many people putting a portion of food/mostly grain snacks in their pockets to take home when served as a group during funeral ceremonies of better-off people. Such actions were not happened even during the 1984 famine' (FG_KB/ME-CEM/03/02/2011)</p>

Source: Author's fieldwork, 2011.

Table 6.8 summarises subjective indicators of the severity and impacts of the *green famine* of 2007–08 as presented by the community members and people who experienced it. As indicated in Figure 6.2 and Table 6.8, during the 2008 food crisis, households adopted unusual and extreme coping strategies compared to strategies they usually adopt in the course of regular seasonal food shortages. These include engaging in activities such as stealing *kocho* from better-off households, consuming immature *enset* and leasing out farmland that is much needed to grow food for the household for extended periods. As discussed in Chapter 4, the estimated average land size per household in the study area (in 2011) was 0.35 ha compared to 1 ha at national level. Needless to say, land is the scarcest resource in the study area and leasing out a portion of it for extended periods highlights the severity of the situation households experienced. Further, as explained by famine-affected households, during the *green famine* period, when every available option to deal with the situation failed, some households adopted extreme measures (see Box 6.1).

Box 6.1: Examples of extreme coping strategies adopted during the 2007–08 *green famine*

During the *green famine* period, extreme measures were undertaken. For instance, a household with a moderately or severely malnourished child could automatically become eligible to receive emergency relief particularly from humanitarian agencies who newly arrived and opened emergency treatment centres in different locations. However, those households who do not have eligible children or no children at all would ‘borrow or swap’ a malnourished child’ from their relatives or neighbours and would take it to the next emergency centre, get registered and receive support. The arrangement would be that the support received would be shared equally between the two families. The participants explained that this strategy was ‘successful’ in getting access to food than waiting for government’s’ emergency food aid due to: (1) The humanitarian agencies cannot effectively verify whether the child belongs to the person who is bringing it to the centre or not; they are simply worried about the state of the child, hence as long as it is in a bad situation, it will be supported; (2) There is no formal identity card for people in the area so one could go to the next emergency centre in another *kebele* and access the same support again. However, the participants also revealed the very painful experience a few people had in the process of temporarily ‘lending’ children: some of the children died from exhaustion, as they had to be taken further distances on foot in difficult circumstances.

Households do not adopt certain coping strategies easily unless the food crisis is beyond their control. The extreme measure reported in Box 6.1 highlights the severity the situation. In Kambata society children are seen as a means of ‘continuity of family, kinship and clan’ (Belachew 2001: 216). Similarly, it is an extremely disgraceful act in Kambata culture for male members of the household to steal *kocho* or *hammicho* for which only women traditionally undertake the processing. An excerpt from a community focus group discussion illuminates this further.

‘In the past, during regular and extreme food shortages, people used to call upon their relatives and receive food, particularly *kocho*. However, during the 2008 famine such supports failed. As a result many people who had nothing to taste [eat] at their home resorted to theft and stealing. We know and have heard that many people in our *kebele* and neighbouring areas have died as a result of this situation’ (FGD_KB-ME/RCG/10/02/2011).

Thus, when these coping strategies are used widely they suggest the situation is grave and, moreover, the existence of famine conditions.

As discussed above, respondents also indicated that the magnitude of the 2008 famine was wider and greater compared to the 1984 famine. The latter affected only the poorest section of the community and those who had been affected survived through support from their relatives and patrons. However, the 2008 famine affected everyone; as the respondents said: ‘it [the famine of 2008] made everyone equal and as a result there was no one to call upon’. Further, during the 2008 *green famine* time, the availability of enset for both affected and non-affected households reduced significantly and as such even those who had some could no longer support their relatives. As discussed in chapter 4, the situation broke down the social support system of the community and as a result many poor and destitute households have been hit hard.

The findings of subjective indicators (coping strategies and victims’ perceptions) clearly show that, from the perspective and experience of insiders and victims, the situation in 2007–08 exceeded a ‘normal food crisis’ and can be categorised as a famine. We now look at the ‘objective’ indicators that support the subjective indicators of the severity of *green famine* in the study area.

As has already been indicated in Table 6.4, the levels of malnutrition in the study area did not reach the emergency threshold set by the UN. However, the rapid nutrition screening results (Table 6.5) in Kadida-Gamela in 2008 and Kacha-Bira and Tembaro districts in 2009 among children

6–59 months of age indicated that the malnutrition estimates were much higher than recorded in 2008 in Kadida-Gamela. If this single indicator was taken, the level of malnutrition surpassed the emergency threshold set by the UN WHO, which considers the prevalence of GAM 15 per cent as emergency level. However, as discussed above, solely depending on screening results has its own caveats, as ‘the results often do not provide a reliable population estimate of acute malnutrition prevalence’ (Young and Jaspars 2006: 15). Despite such shortcomings, if they are supplemented with other subjective indicators the result indicates that the *green famine* of 2008 was more than just a food crisis that affected a large portion of the people in southern Ethiopia. In the absence of elaborate nutrition surveys in all three districts, providing indications on oedema prevalence and other indicators, famine victims and community members indicated that many children and pregnant and lactating women had experienced swelling, particularly in their belly and feet. Due to these characteristics, the communities have given it the name of a swelling famine. Another direct indicator of the severity of the situation of 2008 was the number of malnourished children admitted to the emergency feeding centres in three districts as indicated in Table 6.6.

Data obtained from the UNOCHA field assessment in the study area indicates that the percentage of the population who required emergency aid during the *green famine* period surpassed the threshold of a minimum of 20 per cent of the total population of the area facing extreme food deficits and very limited ability to cope that was set by the IPC scale (IPC Global Partners 2012: 32). Table 5.6 (in Chapter 5) disaggregates the number of people affected during the 2007–08 *green famine*: 32, 31 and 25 per cent of people survived through the emergency relief in Kacha-Bira, Kadida-Gamela and Doyo-Gena *woredas*. These numbers are in addition to 12, 14 and 5 per cent of people who were being supported through the PSNP in the three study *woredas*.

As already discussed in Chapter 4, the prices of basic food commodities during the *green famine* increased sharply, in some cases recording increases of 326 per cent compared to the prices during the same period the year before, reflecting the severity of the situation in the area. The change in price was nearly double the national average. As Minot (2010) and Birru *et al.* (2009) (both cited in Hadley *et al.* 2012: 2412), noted during the 2008 food crisis in Ethiopia, ‘food price increases were particularly high, ranging from 83 percent to 184 percent’ across different cereal markets, one of ‘the strongest acceleration[s] of food price inflation [in any country] during recent years’. As the community elders indicated above, the price was unreachable particularly for

households in the middle- and poor-income categories and this in turn had a serious impact on nutrition, health, social system and overall well-being of the people, in both the short and long term.

6.10.1 Proposing an alternative famine scale

I have critically reviewed the strengths and weaknesses of the FAO IPC and Howe and Devereux famine intensity and magnitude scales above. As already discussed, despite these two scales ‘recognising’ the role of coping strategies adopted by households in the face of food crisis as indicators of famine situation, they do not give them ‘the same weight’ in categorisation. Despite their limitations, the anthropometric and mortality indicators have remained leading and higher weighted indicators. Nevertheless, these scales fail to recognise and include the role of victims’ experiences and definitions of famine. Understanding and defining famine based on ‘objective’ indicators has been a long-held view and reflects still influences the decisions and responses against famine.

6.10.2 Unique attributes of the proposed famine scale and its contribution to famine conceptualisation and classification

The proposed famine scale (Handino famine scale) draws mainly on the IPC and Howe and Devereux famine scales, particularly on the ‘objective indicators and thresholds’. However, it has different levels of objective thresholds from those two scales and inherent differences as presented below.

(1) Reduced thresholds for anthropometric and mortality rates

As noted earlier, the objective thresholds that are designated to declare and classify a food crisis as a famine by both the IPC and Howe and Devereux famine scales are unreasonably high. As can be seen in Table 6.9, both propose the prevalence of GAM rate as more than 30 per cent or 20 per cent respectively as a threshold for ‘famine condition’. Further, Howe and Devereux’s intensity scale proposes reduced thresholds of CMR for both phases of ‘famine and severe famine’ conditions as ≥ 1 but $< 5/10,000/\text{day}$ and ≥ 5 but $< 15/10,000/\text{day}$ respectively. Although these thresholds are lower than the IPC’s ‘famine/humanitarian catastrophe’ phase and other UN agencies’ thresholds (e.g. WHO, RNIS), they are still relatively high to be used as benchmarks, particularly in the cases of slow-onset famine situations. As discussed above, although they are

considered as 'objective indicators' of famine, the causal relationship between famine, malnutrition and mortality remains highly contested as different factors influence and determine their occurrence. De Waal (1989) indicated that starvation was not the only cause of mortality during the 1989 famine in Darfur; rather, it was due various factors such as unhygienic and over-crowded living conditions, poor health services provision and subsequent diseases (see also Young and Jaspars 1995).

In addition, the death toll and malnutrition rates of recent famines have been significantly less than in famines of earlier days. The lower mortality is attributed to advancement in health and nutrition treatment, communications and logistics improvements, improved early warning systems and the presence of well-established humanitarian agencies operating on the ground or readily available upon the declaration of famine. Thus, the Handino famine scale adopts reduced thresholds for both malnutrition and mortality rates to classify a food crisis as famine. The thresholds for GAM and CMR rates for a minor famine are set as $>10\%$ but $<20\%$ and ≥ 1 but $<4/10,000/\text{day}$, respectively (see Table 6.9).

(2) The Handino scale classification begins with a 'famine process'

Unlike the IPC and Howe and Devereux famine intensity scales, the Handino scale is strictly developed to measure and classify famines and it recognises the early stage of food/livelihood crisis as a famine process. Further, the Handino famine scale prioritises subjective indicators of famine and begins by identifying subjective indicators and thresholds of food crisis and famine before the objective indicators and thresholds for famine classification.

(3) Subjective indicators of famine have the same weight as objective indicators

The Handino scale captures the perception and experience of the victims in the famine classification process. As noted in Chapter 3 and elsewhere the concept of food insecurity measurement has progressed significantly since the 1980s and currently subjective indicators that reflect the perception and experience of households are successfully incorporated in the measurement of food insecurity (D. Maxwell 1996; Coates *et al.* 2006). Similar to food insecurity measurements and classifications, the Handino famine scale incorporates the perception of people in its analysis and classification. Despite reflecting the true experience, knowledge and perception of famine victims and local communities, subjective indicators are simply included

without being given *any weight* in famine measurements and classification in existing famine scales. For instance, Howe and Devereux's intensity scale (2004: 361) suggested anthropometric and mortality indicators as 'sufficient on their own', and the subjective indicators as 'suggestive but not confirmatory'. Similar to this, as noted earlier, the UN declared famine in Somalia in 2011 only after 'objective thresholds' were met. The Handino scale introduces 'subjective famine indicators and thresholds' that can be applicable across different famines (Table 6.9). On the Handino famine scale, no single indicator is given an outright weight in the classification of food crisis and famine; both objective and subjective indicators are equally important.

(4) Famine prevention-focused tool

The Handino famine scale is developed primarily as a classification tool with a 'preventative role'. The use of reduced thresholds of objective indicators and an inclusion of famine victims and local perceptions in the Handino scale would imply that a situation could be classified as a 'famine' earlier. This would mean opening the gates to emergency support and response sooner than might otherwise be the case. In other words, the Handino scale helps to trigger an early response, preventing unnecessary suffering, livelihood deterioration and asset depletion. As discussed earlier, for the first time in history, the IPC scale was used in Somalia in 2011 to declare a food crisis as a famine and this was considered as a success for the IPC. Indeed, the IPC worked well at least in predicting the impending famine situation (early warning role) and helped in advancing our knowledge of how the food crisis has evolved and progressed to a famine level. It also played a role in bringing a wider consensus on the issue of famine and helped to trigger a global response. However, it should not be considered a 'success' because declaring a famine after livelihoods have collapsed, after hundreds of thousands of children suffered from severe malnutrition, and after the death of an estimated 244,000–273,000 people (Checchi and Robinson 2013) is not a success at all, but rather a distressing failure to recognise famine and respond earlier. It is a failure because the IPC's unreasonably higher mortality and nutrition thresholds consider it 'normal' to allow the death and suffering of such a large number of people. As discussed earlier, famine is a preventable tragedy that should not be allowed to happen, particularly at this point in the history of mankind.

(5) The Handino scale is simple to use and helps to reduce bureaucratic and political challenges

Existing famine scales have multiple phases and the 'higher weighted and confirmatory indicators' (malnutrition and mortality rates) are complex to collect and analyse and are prone to underestimation by politicians and other actors. Subjective indicators of famine are easy to collect, require less time to do the analyses and yet they paint a more precise picture about the situation on the ground (Maxwell *et al.* 2008). The Handino scale has only three phases, is less complex and is designed to address these political/bureaucratic challenges that can impede the classification of famine events earlier (see Table 6.9).

Table 6.9: Comparison of indicators and thresholds of the IPC, Howe and Devereux and Handino famine scales

	Howe and Devereux famine intensity scale		IPC scale version 1.1		Handino famine scale	
Phase	Objective indicators and thresholds	Subjective thresholds and indicators	Objective indicators and thresholds	Subjective thresholds and indicators	Subjective thresholds and indicators	Objective indicators and thresholds
(1) Food crisis conditions (2) Acute food and livelihood crisis (3) Famine process	CMR \geq 0.5 but $<$ 1/10,000/day and or Wasting $>$ 10 but $<$ 20% and/or prevalence of oedema	Social system significantly stressed but remains largely cohesive; dramatic rise in price of food and other basic items; adaptive mechanisms start to fail; increase in irreversible coping strategies	CMR 0.5-1 / 10,000 / day, U5MR 1-2 / 10,000 / day GAM 10-15 %	Crisis strategies, CSI $>$ reference, increasing	5% of households indicated they have deployed irreversible coping strategies. 10% of households indicated they have faced serious food shortage and hunger	CMR $<$ 0.5/10000 /day GAM \leq 10% SAM $<$ 2%
(1) Famine conditions (2) Humanitarian emergency (3) Minor /localised famine	CMR \geq 1 but $<$ 5/10,000/day and/or Wasting \geq 20% but $<$ 40% and/or prevalence of oedema	Clear signs of social breakdown appear; markets begin to close or collapse; coping strategies are exhausted and survival strategies are adopted; affected population identify food as the dominant problem in the onset of the crisis	CMR 1-2 / 10,000 / day, U5MR $>$ 2 / 10,000 / day GAM $>$ 15 %	'Distress strategies', CSI significantly $>$ than reference	10–20% of households face extreme food shortage. 10% of households have indicated they have deployed irreversible strategies and informal social support system has failed. Both community elders and affected people define the situation as famine during rapid assessment	CMR \geq 1 $<$ 4/10,000/day GAM $>$ 10% but $<$ 20% SAM 2–5%
(1) Severe famine conditions (2) Famine/ Humanitarian catastrophe (3) Major famine	CMR $>$ 5=but $<$ 15/10,000/day and/or Wasting \geq 40% and or prevalence of oedema	Widespread social breakdown; markets are closed or inaccessible to affected population; survival strategies are widespread; affected population identify food as the dominant problem in the onset of the crisis	CMR $>$ 2 / 10,000 / day GAM $>$ 30 %		20–30% of households face extreme food shortage. 20% or more households have indicated deploying irreversible and last resort coping strategies. Both community elders and affected households define the situation as severe famine during rapid assessment	CMR \geq 4 but $<$ 10/10,000/day GAM $>$ 20% SAM $>$ 5%
(1) Extreme famine condition	CMR \geq 15/10,000/day	Complete social breakdown; wide-spread mortality;				

	Howe and Devereux famine intensity scale		IPC scale version 1.1		Handino famine scale	
Phase	Objective indicators and thresholds	Subjective thresholds and indicators	Objective indicators and thresholds	Subjective thresholds and indicators	Subjective thresholds and indicators	Objective indicators and thresholds
		affected population identify food as the dominant problem in the onset of the crisis				

Note: (1) refers to the names of phases designated in Howe and Devereux famine intensity scales, (2) in IPC and (3) in Handino famine scale respectively.

Source: Author's construction based on FAO's IPC version 1.1 (IPC 2008: 4) and Howe and Devereux famine scale (2004: 362).

6.10.3 How to combine objective and subjective thresholds to classify and measure a famine

As noted above, the Handino famine scale does not claim to be fundamentally different from the IPC and Howe and Devereux famine scales. However, it identifies the weaknesses and limitations observed on these scales, and proposes different set of indicators and thresholds. As can be seen in Table 6.9, in order to classify a given food crisis as a famine, the Handino scale recognises the weight of both objective and subjective indicators. However, as discussed earlier, objective indicators (malnutrition and mortality) often do not manifest at the same time and consequently may not reach threshold levels at the same time. In addition, given their nature as ‘trailing indicators’ they only occur after the situation gets worse. This causes some difficulties in aligning them with the subjective thresholds. However, it is possible to capture and gauge local perceptions and coping strategies concurrently. The severity of coping strategies and local perceptions can be captured through participatory assessments applying different rigorous qualitative techniques such as ranking and proportional piling the types of coping strategies applied before and during the crisis both at the community and household levels (see Chapter 2). Alternatively, quantitative techniques such as ‘reduced CSI’ can be applied (see Maxwell *et al.* 2008, 2013). Once locally defined coping strategies are collected and ranked according to their severity and the community elders and affected people define the situation as a famine, these will be compared with the objective indicators. Here, it should be noted that, as discussed earlier, due to various factors the objective indicators and thresholds might not correspond with the assessment of subjective indicators.

In the event that the subjective thresholds suggest *a minor famine* while the objective thresholds suggest *a famine process*, the finding of the subjective thresholds should be accepted to classify a famine as they reflect the actual experience, perceptions and views of the victims. Further, objective indicators are driven by and are outcomes of the subjective indicators. When households define a situation as hunger or famine, it means that the decision is made on the available resources at disposal and thinking ahead of the main event. In a similar vein, in ideal conditions, the Handino famine scale gives equal weight to both objective and subjective indicators and thresholds to classify a famine. However, in the absence of representative objective indicators and thresholds during a food crisis, subjective indicators and thresholds can be used. The absence of objective indicators should not deter an early response. As noted above, the primary objective of

the Handino scale is prevention of famine by declaring earlier without necessary experiencing excess mortality and malnutrition. If the Handino famine scale had been applied, the *green famine* of 2007-08 would have been declared earlier and classified as a minor famine (see Table 6.10).

Table 6.10: Category of *green famine*, 2007–08

Phase	Subjective indicators	Subjective thresholds	Objective indicators	Objective thresholds
Famine process	<p>Livelihood specific irreversible coping strategies are deployed.</p> <p>Community members expressed their concern about the deteriorating food insecurity and hunger.</p>	<p>5% of households indicated they have deployed irreversible coping strategies.</p> <p>10% of households indicated they have faced serious food shortage and hunger</p>	<p>CMR</p> <p>GAM</p> <p>SAM</p>	<p><0.5/10000/day</p> <p>=<10%</p> <p><2%</p>
Minor/localised famine	<p>Livelihood-specific Irreversible coping strategies are deployed. A collapse of social support system observed. Price of staple food items reported unaffordable for the majority of households and markets begin to close or collapse.</p>	<p>10–20% of households face extreme food shortage. 10% of households have indicated they have deployed irreversible strategies and informal social support system has failed.</p> <p>Both community elders and affected people defined the situation as ‘famine’ during rapid assessment.</p>	<p>CMR</p> <p>GAM</p> <p>SAM</p>	<p>>=1</p> <p><4/10,000/day</p> <p>>10% but <20%</p> <p>2–5%</p>
<i>Green famine 2007-08</i>	<p>‘We had no one to call upon.’</p> <p>‘Many people have leased their farmland to access cash. This has not been the case during the 1984 famine.’</p> <p>‘I survived by selling immature onset at Shinshicho market.’</p> <p>‘Theft has become widespread. Stealing of <i>kocho</i> was very common and was done by men, which is extremely shameful in our culture.’</p>	<p>‘The 2008 famine was even worse than the 1984. Many people would have died if there was no wider support from government and NGOs’</p> <p>‘This food crisis [famine] was the worst by any measures. It is more serious and caused more suffering compared to all other previous famines and it also made us less resilient.’</p> <p><i>‘Illachi, illansachhi kerseha gorru’</i> (‘it is a famine that has separated us from our children and relatives’)</p>	<p>CMR</p> <p>GAM</p> <p>SAM</p>	<p>0.48*</p> <p>28.9%*</p> <p>2.3%**</p>

* Rapid screening result; ** Standard nutrition surveillance result

Source: Handino famine scale, 2013.

As can be seen, under the objective indicators the prevalence of CMR and SAM are below the thresholds for a famine situation. There are different explanations for this. As previous studies have shown, the causes of malnutrition are multifaceted. As Lautze *et al.* (2003: 135) argued, the relationship between malnutrition and mortality is not direct and thus, ‘malnutrition and mortality do not necessarily increase in tandem’. Further, rapid response and availability of health and treatment services could also lower the risk of mortality. This also highlights the inherent limitations of nutrition outcomes as indicators of famine. As de Waal (1989: 31) reported, citing the Relief and Rehabilitation Commission of Ethiopia: ‘In 1974 famine in the Ogaden region the investigators found high levels of excess mortality but near-normal levels of nutrition and decided that there was no currently famine.’

6.10.4 Limitations and operational challenges of the Handino scale

As noted earlier, the Handino scale recognises the famine process earlier and subsequently declares a famine before it inflicts severe damage on lives and livelihoods of the people. This is one of the fundamental differences between the Handino scale and the other two scales. However, this could also serve as its limitation and hence cause resistance from different actors who are responsible for famine prevention and response, particularly local and national governments, donors and humanitarian agencies. This is because to date, famines are conventionally declared and measured once the ‘objective indicators’ are manifest and thresholds are met. Thus, declaring famine based on ‘subjective indicators’ is perceived as not rigorous, unscientific, and exaggerating the situation by conflating famine with chronic food insecurity. If famines were declared based on reduced objective thresholds and subjective indicators, it would mean the number of famines particularly in Africa, would rise significantly. Another potential operational challenge is to how to capture local perceptions and the weight of locally defined coping strategies that are globally applicable as the latter tend to vary in different contexts and incorporate with objective indicators. However, despite these challenges, the cost and benefit of recognising famine as a process just like famine victims and declaring earlier based on local perceptions and reduced thresholds outweighs the benefits of recognising famine as event that causes higher malnutrition and mortality. Recognising and declaring famine earlier could also increase the media profile of a crisis and that in turn helps to increase the awareness and resources from external sources. Further, it ‘enforces political contract against famine between the state and its citizens’ by inducing pressure on policy-makers and politicians and increasing

accountability and responsibility of international actors to prevent the occurrence of famine as it has higher political costs than localised food crisis or emergency (Howe and Devereux 2004; Lautze *et al.* 2009: 33). As noted earlier, although it poses some methodological challenges, a significant progress is already achieved in recognising the relevance of the ‘voice and perception of the poor’ and incorporating them in poverty assessments (Chambers 1997; Pradhan and Ravallion 1998: 367) and food security measurements (D. Maxwell 1996; Maxwell *et al.* 2008, 2013). Thus, experiences and lessons could be learned from these practices globally and applied in specific contexts.

6.11 How will the occurrence of *green famine* force us to rethink the causes of famine?

Famines in sub-Saharan Africa are often associated with drought and are geographically concentrated in more arid and drought-prone countries and regions. In the case of Ethiopia particularly this thinking has held a strong position, as the major famines happened in the highlands of the Amhara, Tigray, low rainfall and pastoral areas of Somali and Oromia regions. Lautze and Maxwell (2007: 231) neatly captured this dominant narrative as follows: ‘There is a widely accepted popular narrative that major disasters (food crisis) in Ethiopia only happen about once a decade and the disasters are due to drought situations’. However, as noted earlier in this thesis, drought is not and cannot be a sufficient explanation for famine. There are always additional vulnerability factors working in tandem with drought, which has already progressively weakened the resilience of livelihood systems. These factors are multidimensional and stem from social, natural, economic and policy/political elements.

In a similar way, an expatriate key informant who had worked in food security and rural development for more than two decades in Ethiopia explained:

‘There is a dominant perception and understanding in Ethiopia from policy-makers to politicians and community at large that drought=hunger=famine. As a result of this popular perception, there is a failure to look into other factors that are contributing towards food insecurity and the dynamics of livelihood vulnerability in onset-dependent areas. As a result, there is a failure to recognise the entire dynamic and hence a failure to respond on time and put the right policy response in place’ (KI_UK/Ln-25/11/2011).

However, the present day food crises and famine, particularly the *green famine*, occur in enset–cereal based livelihood zones of southern Ethiopia that usually receive a better rainfall distribution and have a comparatively lush agro-ecology. In Ethiopia famine is generally understood as a product of drought, and hence policy-makers have failed and early warning systems have not picked up the underlying vulnerability dynamics at play in the enset-livelihood zone (Lautze *et al.* 2003). Despite the outward appearance of relative ecological fecundity, there is a grim reality of poverty and destitution on the inside, with a growing part of the farming population no longer able to cope.

The occurrence of *green famine* dispels the long-held assumption of drought as the exclusive cause of food insecurity and famine in Ethiopia. *Green famine* is caused by a web of complex factors that have occurred successively and simultaneously. As discussed earlier, the key vulnerability factors that are causing people become vulnerable over time include restrictive policies and lack of alternative employment opportunities, increasing agriculture input prices, poorly designed and implemented agricultural policies, outbreak of enset bacterial wilt and subsequent production dwindling, persistent rain failures, decreasing livestock ownership and land size due to a growing population pressure. As a result, the majority of livelihoods in the study area have witnessed a progressive erosion of assets and have consequently become chronically food insecure. Thus, the occurrence reconfirms the importance of livelihood vulnerability and how a single shock such as drought can easily push vulnerable livelihoods over the edge. As Herdt (2004, cited in Baro and Deubel 2006: 526) argued, ‘a population suffering from chronic food insecurity is more vulnerable to full-blown famine, and small fluctuations can lead to emergencies’. Based on the current state of livelihoods and food insecurity, it can be safely argued that the enset–cereal based livelihood system in the study area is severely damaged due to intertwined natural, economic, political and policy-related factors. Some socio-economic groups have already experienced a livelihood failure and hence are experiencing a famine situation when they face a single shock. Thus, unless structural sources of vulnerabilities are addressed, the occurrence of *green famine* in the study area is ‘a ticking time bomb’ in Walker’s terminology (Hampson 2008).

6.12 Conclusions

Famines have occurred in Ethiopia over a long period. However, the geography, the causes, the

magnitude and the scale of the different famines vary significantly. Historically, cereal-dependent areas of the northern and central highlands and pastoral areas of eastern lowlands of the country have suffered more than the enset-based livelihoods in the south. The causes of famines were largely associated with severe drought, outbreak of crop and livestock diseases, civil unrest, poor policy interventions and accountability and response failures. The enset-dominant livelihood zones are becoming increasingly vulnerable to food insecurity and shocks over the past two decades and subsequently the study area has experienced severe food crisis and localised famine situations in 2003 and 2007–08. Despite the occurrence of famine situations, both incidents were only referred to as food crisis and not recognised as famine. Among other factors, political economy has played a role in failing to recognise it as a famine because it happened in a less powerful, ethnically divided part of the country. Recognising and declaring famine in Ethiopia can imply a regime change. As Lautze *et al.* (2009: 13) noted ‘famine became central to Ethiopian politics, a historical fact of which subsequent officials and politicians have remained intensely aware’.

Famine is a contested issue and there is still an ongoing debate on what exactly entails famine and when a food crisis situation can be categorised as a famine situation. There is a stark difference between the views of insiders (famine victims) and outsiders (Devereux 1993a; De Waal 1989: 10; Baro and Deubel 2006: 525). In the effort of searching for a universally accepted famine definition and benchmarks, the fundamental question remains unanswered: ‘whose definition counts?’ The term famine has different meanings and implications for different actors involved in the fight against famine. However, famine victims perceive, understand and define famine situations without high mortality levels being evident. The Kambata perceive and define famine as a process that causes social support systems to breakdown and economic destitution and further damage, if no external intervention is in place. Further, they indicate that mortality is not necessarily a precondition for famine and they differentiate between famine that can cause swelling (oedema) and famine that kills. According to local people and famine victims, the 1984 famine was a killing famine and the 2008 famine was a swelling famine.

In contemporary famine understanding and classification, ‘objective’ indicators (anthropometric and mortality outcomes) have become dominant parameters. Despite being very important indicators, subjective indicators, particularly coping strategies adopted by households during food crisis and their own perceptions and definitions, have not been fully recognised in famine definition and classification. Like food security, famine is ‘a multidimensional phenomenon and

hence famine measurements require examination of a combination of related indicators' (Frankenberger and Coyle 1993, cited in Baro and Deubel 2006: 526). The existing famine scales (IPC and Howe and Devereux scales) have limitations as both give more weight to objective indicators with little or no room for subjective indicators in their famine definition and measurement. The Handino famine scale seeks to address these limitations by giving equal weight to subjective indicators in measuring and classifying famine. Further, the Handino Scale treats objective and subjective indicators equally. Understanding famine from the victims' perspective (famine as a process) will have important implications for designing appropriate policies and responses to fight against famine. Until famine is understood and defined in a similar way to the victims' understanding (as process, destitution and social breakdown), it will continue to recur and inflict unnecessary human suffering.

Unless the magnitude of the crisis is too severe and is beyond their coping capacity, households do not adopt irreversible coping strategies that will have ramifications on the long-term viability of their livelihood. Thus, it is very important to consider that locally defined culturally and livelihood-specific coping strategies weigh more and are treated as credible indicators alongside other 'objective and scientific' indicators. Using localised and livelihood-specific coping strategies along with objective and statistical measurements and thresholds could be the best method to examine and determine the severity and magnitude of the food crisis and famine situation in a given area. By applying the Handino famine scale, the *green famine* of 2007-8 was a minor/localised famine.

The occurrence of *green famine* in a historically green and lush agro-ecological and livelihood zone dispels the straightforward association of famine with drought. It suggests the need for improved understanding of the types of livelihood strategies and sources of livelihood vulnerability in determining how famines develop slowly over time, with clear implications for the design of effective policies and responses.

The next chapter introduces different policy responses undertaken by the government to address the issue of food insecurity and famine in Ethiopia. It investigates how these policy interventions are addressing and reducing livelihood vulnerability to food insecurity and *green famine* in the study area.

CHAPTER 7

Examining food security policies and programmes in protecting livelihoods and reducing vulnerability to *green famine* in southern Ethiopia

The food security programme is designed to address problems of shortfalls in food production, vulnerability to falls in consumption and incomes and consequent hunger that the country has faced repeatedly, through adaptation of development alternatives to bring about lasting solution. The effort to reduce vulnerability is central to the five years plan strategy (2005–2010) (FDRE 2006: 93).³⁷

7.1 Introduction

This chapter briefly provides an overview of different rural and agricultural development and food security policies undertaken by different regimes in Ethiopia. It particularly, examines the role and contribution of the current government's food security policies, strategies and programmes in addressing and reducing household vulnerability to food insecurity, hunger and *green famine* in K-T zone. It specifically reviews three selected food security programmes and interventions that have been implemented in three different time spans over the course of the last two decades: the Agricultural Extension Service Programmes (AESP), the Productive Safety Net Programme (PSNP), and the Other Food Security Programmes (OFSP). By looking at these programmes the chapter attempts to shed light on the debate about multiple sources of livelihood vulnerability to food insecurity, especially in Ethiopia. It also briefly examines the institutional arrangement of these policies and draws lessons for future food security policy formulation.

7.2 An overview of rural and agricultural development and food security policies

The overall policy environment of Ethiopia is very dynamic and as a result, strategies and policies of rural and agricultural development and food security have been in constant flux since 1950s.

³⁷ The objectives of the national food security programme of Ethiopia as stated in the second round poverty reduction strategy paper.

Historical accounts reflect that the problem of food insecurity in Ethiopia has been and still is associated with food shortages at the national and household levels. As Samuel (2006: 4) argued, there is a strongly held view among policy-making circles and development practitioners that the problem of food insecurity in Ethiopia originates from poor performance of the agricultural sector, and the remedy for this problem is to transform and improve the agricultural sector through the provision of 'modern technology comprising improved seeds, fertilisers and technical support' to smallholder farmers. Thus, it is reasoned that a transformation of this sector will eventually result in food security at the national and household levels. For instance, Keeley and Scoones (2000: 95) noted how the policy narrative of 1980s agricultural extension package programme in Ethiopia drew on green revolution narratives in Asia:

The narrative associated with this policy stance is very familiar, drawing on the arguments used in support of the Green Revolution in Asia. Growing populations and declining per capita food production, it is argued, will result in major food gaps, which must be filled by boosting aggregate food grain production. Off-the-shelf modern technologies are available, it is stated, which could achieve this, if only they were properly extended to the farming population.

As discussed in Chapter 3, globally this thinking on food insecurity (as an outcome of food shortages) was a predominant discourse in the 1970s and as a result this has also shaped and influenced the food security policies in Ethiopia and elsewhere. Influenced by this thinking, most of the rural development and food security policies pursued in the past and today are focused on increasing agricultural productivity and subsequent food availability at national, regional and household levels. For instance, during the reign of Emperor Haile Selassie (1930–74), Ethiopia faced successive food insecurity and famines mainly in the northern part of the country but the famine also spread to Hararghe. The most severe famines were in Tigray in 1958, in Wag-Lasta (Wollo) in 1966, in Wollo in 1973 and in Hararghe 1974 (Mesfin 1984; Sen 1981: 86). Confronted with famines and growing chronic food insecurity, the Imperial regime set up successive development plans divided into five-year periods. The First Five Year Plan (FFYP) was implemented from 1957 to 1962, the Second Five Year Plan (SFYP) from 1963 to 1968, and the Third Five Year Plan (TFYP) from 1968 to 1973 (Degefa 2005: 129).

As Dessalegn (2009: 50) noted, despite the imperial regime's aims to improve the agricultural sector of the country and rural vulnerability to food insecurity and famine, during the FFYP the policy actions were minimal except for 'some support to cash crops (coffee) and livestock

production'. However, during the SFYP, *modernisation* of the agriculture sector became a major policy discourse and a priority. In this modernisation plan, peasant agriculture was overlooked and large-scale commercial agriculture was seen as a means for economic development and stimulant for the peasant agriculture. The facilitation of this modernisation was meant to be implemented through 'demonstration and dissemination' (*ibid.*: 50). However, the policies and programmes failed to achieve their objectives for various reasons. As Dessalegn (2007: 33) and Berhanu *et al.* (2006: 10) noted, the programmes were designed in a 'one-size-fits-all approach and focused only on better-off farmers and promoted cereals and cash crops at the expense of indigenous food crops'.

In 1974, a military government led by Mengistu Hailemariam took political power abolishing the feudal landlord system and introducing radical land reform in early 1975. The land reform gave unprecedented power and control to the state. It transferred all land from the feudal landlords to the state, providing only 'usufruct rights to peasants and prohibiting land sales, mortgage and transfers'³⁸. The reform also provided access to land for thousands of tenants and peasants who used to work for and pay taxes to their landlords (Dessalegn 2007: 34; Ayele 2008: 125). During its early years the Derg regime continued with the same agricultural development policies inherited from its predecessor (the Minimum Package Project) (Berhanu *et al.* 2006: 11). But later it introduced 'a Soviet-style socialist type of state-controlled agriculture system by setting up peasant associations, services and producer cooperatives in which the state was in charge of input supply, marketing and price control' (Keeley and Scoones 2000: 94; Dessalegn 2007: 34). However, the Derg's development plan and policies could not successfully address chronic food insecurity and famine. In 1984, Ethiopia faced one of the worst famines in its modern history. The socialist type of collective agriculture and extractive grain quota systems negatively affected the food security situation of smallholders. The resettlement programme caused severe loss of lives, damaged livelihoods and led to environmental degradation (Wolde-Selassie 2002). As Dessalegn (2007: 38) noted, between 1984 and 1986, 'out of a total of 600,000 people being resettled an

³⁸ The current land tenure policy of Ethiopia is similar to the Derg regime, as the land remains the state property, except the current system (since 1997) allows short-term lease, limited transfer and offers holders right through land certification process (For more, see Degefa 2005; Dessalegn 2007; Ayele 2008).

estimated 33,000 settlers lost their lives due to disease, hunger and exhaustion and thousands of families were broken up'. The occurrence of famine and general public discontent towards government policies worked in favour of the rebel groups who were fighting the Derg regime for more than 15 years by giving them a momentum in late 1980s that subsequently led to the collapse of the Derg in 1991.

7.3 Food security and agriculture policies under the EPRDF

After the fall of the military regime in 1991, the EPRDF-led administration pledged to ensure food security and eradicate famine as its priority agenda. Given the historical roles that famines have played in the change of regimes (the Imperial and the Derg) in Ethiopia, it is not a surprise to see the new regime starting its administration by making food security a priority policy. Despite strong policy attention towards reduction of food insecurity and prevention of famine by introducing different interventions (see Table 7.1), recent empirical evidence suggests that areas and communities that used to be relatively resilient and food secure are becoming more and more vulnerable to seasonal shocks and stresses and subsequent food crisis and famine (Lautze *et al.* 2003; Degefa 2005: 126). For instance, since 2011 Ethiopia has been among the top recipients of United States government food assistance in the world, and currently over 12 million people depend upon some food assistance in order to meet their basic needs (Feed the Future 2011: 9).

This chapter attempts to understand how the three selected policy responses, strategies and programmes hereafter referred as 'food security programmes' throughout undertaken by the current administration are addressing and reducing the issue of household livelihood vulnerability to food insecurity in the enset-dominant livelihood zones of southern Ethiopia. I choose these three programmes based on the following factors:

- (1) As can be seen in Table 7.1, some of the policies and programmes were formulated recently and they are still ongoing. Further, I have been actively involved in the implementation of the AESP at grassroots level as a development agent (DA) and thus I wanted to reflect on its implementation and impact and the overall process.
- (2) Some of the food security programmes, for example, the Complementary Community Investments (CCI), are operational only in limited regions (particularly in pastoral and

semi-pastoral lowlands) of the country and thus were not available in the study area to examine their impact.

- (3) From 2010 to 2013, as part of my PhD fieldwork and as an independent consultant, I was part of the impact assessment team of IDS/IFPRI, undertaking a nationwide study on the impact of the government's food security programme focusing on PSNP, OFSP/ Household Asset Building Programme (HABP) and CCI. As part of this study I spent considerable time in the study area and in other parts of the country. Thus, I will use this experience and the findings of this impact evaluation study to triangulate with my own study in order to capture the experience of beneficiaries, the community at large and different actors on the ground.

Table 7.1: Selected food security policy programmes under the EPRDF

Year	Policy/Strategy/Programme	Objective
1994/95 ongoing	Participatory Demonstration and Training Extension System (PADETES)	Transform and increase agricultural productivity
1996–2002	Federal Food Security Strategy (FFSS)	Increase food availability Ensure access to food Strengthen emergency response capabilities
2002–ongoing	Revised/updated Food Security Strategy	Improve food availability and access to food and reduce vulnerability to shocks
2003–ongoing	Voluntary Resettlement Programme (VRP)	Increase access to improved and productive land and water
2005–14	Productive Safety Net Programme (PSNP)	Prevent asset depletion at the household level, create assets at the community level and stimulate markets
2005–10	Other Food Security Programmes (OFSP)	Diversify and increase household assets
2010–14	Household Asset Building Programme (HABP) ³⁹	Diversify and increase household income and assets
2010	Complementary Community Investment (CCI)	Create community-level assets through improving infrastructure and services

Sources: FDRE 1996, 2002b, 2003, 2006, and 2009.

In the wake of the 2000 famine in Somali region⁴⁰ and the 2002–03 'severe food crises' across the nation that pushed the number of people requiring emergency food assistance up to 14 million,

³⁹ Initially this programme was designed for a five-year period from 2005 to 2010. Now the PSNP is in its second phase (2010–14) and the name of OFSP has been changed to HABP incorporating some additional elements in the programme.

the Ethiopian government sought to reform its food security policy and approach (Pankhurst 2009: 2). As part of this process, in 2003 the Government of Ethiopia initiated a broader and multi-sectoral consultation process known as the New Coalition for Food Security, a working group of experts representing different national ministries, INGOs and donors (Degefa 2005: 150). The key conclusion of the process was that the underlying causes of persisting chronic food insecurity and resultant hunger in Ethiopia have less to do with seasonal shocks such as drought but rather relate to pervasive and widespread poverty. The implication was that food insecurity is chronic in nature and hence predictable. Thus, food insecurity and hunger could be better addressed through multi-annual, predictable and integrated interventions and resource transfers than through *ad hoc* emergency responses that often arrive after household livelihoods have already been damaged. The outcome of the process was agreement on the need to design a new National Food Security Programme (NFSP) consisting of the PSNP, a Voluntary Resettlement Programme and Other Food Security Programmes (FDRE 2003; Degefa 2005: 150; Frankenberger *et al.* 2007: 1; Pankhurst 2009: 2).

In parallel to the PSNP, OFSP, VRP and CCI, the Government of Ethiopia has undertaken various complementary and integrated food security interventions across the nation. These include the regular agriculture extension package programme, water harvesting and small irrigation scheme development, watershed management, market linkage and others (FDRE 2009). The following section introduces and discusses the three programmes under investigation.

7.3.1 Agricultural Extension Service Programme

Like other food security and rural development policies and strategies, agricultural extension service policies in Ethiopia have changed considerably over time. The change in regime in 1991 brought agricultural development to centre stage of the government's macro-economic development policy and consequently the government introduced a new national development strategy called Agriculture Development-Led Industrialisation (ADLI) in 1992 (Degefa 2005: 58; Amdissa 2006). This policy aimed to bring 'rapid and sustained economic growth, guarantee

⁴⁰ See Salama *et al.* 2001; Hammond and Maxwell 2002.

maximum benefits to the majority of the people, minimise dependency on foreign aid, and promote the development of a market-oriented economy in Ethiopia' (FDRE 2003: 14). Thus, improving the agricultural extension service was regarded as a prerequisite for improving the overall agricultural sector in general and for the success of the national development policy as such. Subsequently, in 1995 the government adopted a new agricultural extension system called Participatory Demonstration and Training Extension System (PADETES) as a national extension system. The PADETES system was designed to achieve rapid agricultural productivity through an increased application of chemical fertilisers, pesticides and herbicides and the introduction of improved seeds by smallholder farmers. The specific goals of PADETES were to improve incomes via increasing productivity, ensuring self-sufficiency in food production, establishing farmer organisations, increasing production of export crops, conserving natural resources and increasing women's participation in development (MOA 1994; Davis *et al.* 2010: 8).

The extension programme started on a pilot scale based on the experience of the Sasakawa-Global (SG)-2000 programme targeting a small number of farmers in some regions of the country (Belay 2003: 4). However, a rapid increase of productivity per hectare, particularly of cereal crops, influenced the Government of Ethiopia, donors and other actors to increase the expansion of the programme and subsequently the Ministry of Agriculture rolled out the extension service programme on a large scale in highland areas, providing different packages of cereal crops along with fertiliser and later including livestock, high-value crops, post-harvest technologies and agro-forestry (Keeley and Scoones 2000: 96; Belay 2003:65; Berhanu *et al.* 2006: 12). There was a sharp increase in the number of farmers adopting the extension packages. For instance, Spielman (2008: 2) reported that in 2004–2005 the extension package reached 'about 40 percent of the roughly 10 million farmers in Ethiopia'. As a result of such a rapid adoption of technologies, particularly in the use of chemical fertilisers, improved seeds, insecticides and herbicides, food production per capita increased from around 119 kg in 1994–95 to 162 kg in 2000–01 (SG 2000, 2002 cited in Ashworth 2005: 7). However, despite its quick success in achieving increased agricultural productivity at the national level, the actual impact at the household level, particularly among the poor and vulnerable, is widely contested and the implementation process was marred by controversies and various challenges as explored further below. For instance, studies indicated that due to weather-related risks, poor market access, price volatility for their produce and other related shocks, many poor and vulnerable recipients of the extension packages (seeds and fertilisers) failed to repay

their loans and subsequently fell into the trap of debt. Despite the production and market failure, the local authorities put pressure on the recipients by exerting excessive forces, imprisonment and as a result many ended up losing their valuable assets to repay their debt (Robinson 2003: 14; Belay 2003: 72; Samuel 2006: 18; Pankhurst 2009: 9).

7.3.2 Institutional set-up of the agricultural extension programme and input delivery system

As noted above, agricultural inputs (fertilisers and seeds) are critical elements of the PADETES. Since 1995, the AESP expanded tremendously and underwent different phases of restructuring. In the current decentralised political administrative system, the federal Ministry of Agriculture and Rural Development (MoARD) 'establishes the overall national extension policy, providing financial support for the extension system and supporting the regions with training and other capacity-strengthening activities'. Regional Bureaus of Agriculture and Rural Development (BoARDs) is responsible for distribution of the packages in the region, coordination and liaison with the Zone and *Woreda* level Bureaus of Agriculture on overall implementation and evaluation of the programme. Further, each regional BoARD has a pool of experts in different areas and provides advisory services and administrative backup support to the lower-level administrative offices (FDRE 2006; Davis *et al.* 2010: 12–16).

In a similar manner, the *Woreda* Office of Agriculture and Rural Development (WOARD) is responsible for the overall implementation of the extension programme through its team of experts and DAs in their respective *kebeles*. In the current structure, three DAs are allocated per *kebele* with three distinct training backgrounds in crop, livestock and natural resource management and 'each DA is expected to train and monitor 120 farmers per year in his/her field of specialisation' (Davis *et al.* 2010:10). The DAs are the interface between the government and peasant farmers and their role is critically important in shaping the overall success or failure of the extension programme. Further, in order to facilitate the demonstration and training aspect, the Government has set up a farmers training centres (FTCs) at every *kebele*, increasing the total number up to 18,000 centres across the country (Spielman 2008: 6).

From 1984 until 1993, fertiliser importation and delivery was singlehandedly controlled a state parastatal. However, the 1993 fertiliser policy reform paved the way for private sector entry into

fertiliser import and distribution. The introduction and adoption of PADETES in 1995 also resulted in another policy change on fertiliser distribution. Subsequently, in 1995 the government permitted the creation of four mega regional holding companies⁴¹ that were 'strongly affiliated with the government (central party); by 1996 these four companies accounted for 67 per cent of all fertilisers distributed in the country and were awarded virtually all the programme's fertiliser supply contracts' (NFIA 2001; Stepanek 1999, cited in Jayne *et al.* 2003: 300; Robinson 2003: 15).

7.3.3 Community perspective on agricultural extension programme

As stated above, the AESP sought to transform the agricultural sector in Ethiopia by increasing the productivity of small-scale agriculture by providing different agricultural inputs and technical packages to peasant farmers across the country. In order to gain a better understanding and capture local perceptions of the programme impacts in K-T zone, 12 community focus group discussions were held with participants consisting of resilient and vulnerable households. As already noted in chapters 2 and 4, the participants in the research were divided into resilient and vulnerable groups by a combination of administrative criteria used by local authorities and local indicators identified by the community members during the fieldwork. The focus group discussion results reveal a mixed picture about the overall impact of the programme and the perceptions vary considerably among the two community groups.

The overwhelming majority of vulnerable households reported that the impact of the agriculture extension system in improving their livelihood and food security situation is limited. Focus group participants from vulnerable groups were asked: 'What role do you think the agriculture extension package programme played in your household food security?' The majority responded there was very little or no impact at all, giving reasons such as:

⁴¹ Wondo trading PLC in SNNPR, Dinsho in Oromia, Guuna in Tigray and Ambassal in Amhara regions.

‘It is helping those who are using the inputs and packages. It is helping those ‘model and champion’⁴² farmers, but not us. The main reason is the input price. The price of fertilisers is out of reach for us and is becoming more and more expensive every year. The price of improved seeds has also risen, almost at the same amount as fertiliser’ (FG_KB/ME-VCG/11/02/2011).

‘To begin with, if you do not have enough land and oxen, and you are not in a position to buy the extension packages and inputs, you [the poor and vulnerable] are automatically bypassed by the DAs. You know there is a severe shortage of land here and most people like us have often leased out our plots to a better off household. The other reason is that we fear the debt that comes with the package because we have had very bad experiences in the past like in 2000, 2003, and hence we do not want to go back to that experience again’ (FG_DG/DI-VCG/29/03/2011).

A similar pattern was observed concerning the input price increase across all the localities covered in this research. As noted above, in 1996, the government introduced a policy reform that allowed ‘private’ companies to import and distribute fertiliser, and in 1997 it abandoned subsidies because of ‘pressure from the donors and World Bank’ (Jayne *et al.* 2003: 300; Samuel 2006: 18). The change in the role of distribution of inputs from state to semi-private holdings and removal of subsidies made access to inputs difficult for many poor and middle-wealth category households as these parastatals demanded advance payment of 50–75 per cent of the cost of fertilisers and 100 per cent of the cost of seeds from farmers who wished to receive them. Similar to a claim made by a focus group from Messafe *kebele*, other studies have also indicated that due to the high price of fertilisers, farmers are applying less fertiliser than recommended by the DAs. For instance, Samuel (2006) noted that farmers do not apply the recommended rates of fertiliser and improved seeds and often use only half the recommended amounts.

Similar questions were posed to resilient households across all three districts and the responses were starkly different from their poor and vulnerable counterparts. The overall perception about the impact of the agricultural extension system on the livelihoods of resilient households was

⁴² In the current extension service system, farmers are categorised and given different names based on their performance and adoption of different technologies. Model and champion farmers are mainly those who own relatively large plots of farmlands, are early adopters of packages and are economically better off.

positive. Given their economic background (often they are better off), the findings are not surprising. These households have bigger farm plots, draught oxen and could afford to purchase agricultural inputs, particularly chemical fertilisers and improved seeds that are critical for better performance and yield increment. Further, unlike vulnerable households, resilient households have benefited from the extension education and technical support provided by DAs under the ongoing extension service package programme. As noted by the respondents:

‘We are benefiting from the extension service package program. We are able to access improved seeds of maize and teff and also livestock package including artificial insemination service of improved breeds and technical support from the DAs. We have also seen a significant increase of market price for our produce. However, we have a concern with rapidly increasing prices of input and that is frightening for the future’ (FG_KG/TG-RCG/01/03/2011).

‘We are receiving different technical advice and support from the DAs on soil and water conservation, livestock health, fodder production and management, seedlings of improved fruit trees, compost preparation techniques, fertilisers and seeds. We are benefiting from all these aspects of the extension services except the worry of rain condition that is often becoming very unpredictable’ (FG_KB/ME-RCG/10/02/2011).

The data from the *woreda* and zone bureau of agriculture and rural development offices in the study area show that the fertiliser price has risen sharply over time, reflecting the concerns raised by the community groups above (see Table 7.2).

Table 7.2: Trends in fertiliser price in the study area, 2004–12

District	Type of fertiliser	Yearly price (in birr) of fertiliser/100 kg								
		2004	2005	2006	2007	2008	2009	2010	2011	2012
Kadida-Gamela	DAP	348.17	375.69	380.4	383.06	1,300	752	717	1,109	1,554
	Urea	259.27	340.30	327.20	327.85	960	551.47	610	854	1,274
Kacha-Bira	DAP	351	379.23	381.30	383.06	1,300	758.21	722	1,110	1,564
	Urea	262.43	348	328.10	328	960	558	615	855	1,283
Doyo-Gena	DAP	N/A	N/A	N/A	N/A	1,300	752.35	716	1,095	1,566
	Urea	N/A	N/A	N/A	N/A	960	552.03	609	841	1,285

Source: K-T zone, Bureau of Agriculture and Rural Development 2011b

A quick glance at the figures in Table 7.2 clearly indicates and supports the discontent of peasant farmers on sharply increasing fertiliser prices in the area. For instance, the price of 100 kg DAP (Diammonium phosphate) fertiliser has shown increases of 346 per cent and 345 per cent respectively in Kadida-Gamela and Kacha-Bira districts between 2004 and 2012. In the same vein, the price of urea has shown a 391 per cent and 389 per cent increase over the same period of time in these districts.

Based on the responses provided by both resilient and vulnerable households on the impact of agriculture extension service, the following conclusions can be drawn. (1) The agricultural extension service is designed as a one-size-fits-all approach without carefully considering the economic and livelihood situation of the poor and vulnerable groups. (2) The increasing fertiliser price has become a major challenge for the poor and vulnerable households to access fertiliser and improve their food production. (3) Poor inputs distribution and debt collection process has created a general sense of fear about the packages, particularly for the poor and vulnerable households. Overall, these and other related factors mentioned above have severely affected the outcome of the extension service programme that is meant to help the vulnerable and poor households to improve their food production and reduce their vulnerability to food insecurity by improving their production-based entitlements.

7.3.4 DAs' perspectives

As stated earlier, the DAs are a pillar in the success or failure of the government's rural development and food security strategies. Semi-structured interviews were held with 11 DAs across the study area. In general, the outcomes of the assessment are mixed. Ten DAs indicated that the current agricultural extension programme does not benefit vulnerable and poor community members. The reasons for this include the unaffordability of input prices. Nevertheless, it is benefiting those who are economically better off and can afford to purchase the inputs and apply them as recommended. As noted by a veteran DA who worked for 12 years in three different *kebeles* in the study area district:

'Vulnerable groups are not benefiting from the extension service because they cannot afford the costs of inputs. As a result, we don't give much attention and effort to reach out to these groups and teach them about different available package services. We tend to spend more with those who can afford to receive the inputs and implement accordingly' (KI_SA/KEB-DA /12/03/2011).

Other elements that were thought to hamper extension services included administrative/political and context-based factors and related policies, as discussed below.

7.3.4.1 Political factors

The primary task of the DAs is to identify the agricultural challenges that peasant farmers are confronted with and to provide technical support to deal with these. Further, they are responsible for introducing and promoting different packages developed at the agricultural research centres. However, it was observed that the DAs are spending more time in dealing with political and party-related issues than in discharging their professional duties. This was reported as a main concern among the majority of the DAs. One DA commented:

‘Since the last four years, I have become a member of the *Kebele* Food Security Task Force (KFSTF) that oversees the targeting and implementing of the PSNP. The workload increases particularly during the time of wealth registration of PSNP beneficiaries for a graduation where we have quite a number of complaints arising from participants. We as a *kebele* have a given quota from the *woreda* to graduate a certain number of beneficiaries in a given year and this puts a lot of pressure on us. We also get heavily involved in party campaigns during local and national election periods.’ (KI_SA/KEB-DA/15/03/2011).

Another DA echoed these concerns:

‘We are pressured to convince as many farmers as possible to take fertilisers, improved seeds and different packages. Our bosses appraise our performance based on the number of farmers we are able to convince and target to take loans/packages. If you do well in this, there is a prize at local and regional levels and you will be awarded a title of “Developmental DA” and receive incentives. Even your chance of getting a scholarship to pursue your degree in summer programmes depend on the number of farmers you have enrolled in the package programme. As a result, we tend to focus on convincing more participants, especially going after those farmers who are economically better off and willing to adopt different packages and are able to repay their loan’ (KI_SA/KEB-DA/28/01/2011).

The above findings are in line with previous studies undertaken in other parts of the country, which found that DAs’ time is stretched by their responsibility to perform a range of other non-extension activities: ‘This includes the distribution of fertilizer, the collection of credit and taxes,

and other government activities that do not typically fall under the mandate of extension’ (Belay 2003: 78; Davis *et al.* 2010: 11).⁴³

7.3.4.2 Context-based challenges

The government’s policy document states that the agricultural extension system of PADETES was designed in a way to incorporate local contexts and the demands of farmers in developing tailored packages (FDRE 2002a: 10). However, a closer look at the actual implementation and the types of packages available indicates a contrasting picture. Cereal and cash crops are the dominant elements of the package programme and are often developed at central research stations, but they are often not suitable for different agro-ecological zones in the country (Belay 2003; EEA/EEPRI 2006). In spite of the agro-ecological and livelihood diversity of Ethiopia, it can be argued that the packages are designed with a one-size-fits-all approach. DAs interviewed during fieldwork voiced a similar view. For instance, a DA highlighted that the current extension package does not include non-cereal local food crops that play a significant role in household food security:

‘The extension package predominately focuses on cereals and cash crops such as coffee and others. But, there are no enset, sweet potato and taro packages. Given their support to household food security in our area, these crops should have been included in the package along with cereals’ (KI_SA/KEB-DA/25/01/2011).

The absence of an enset package and the focus instead on cereals production within extension services has had significant implications for household food security in K-T zone. As a result of such strong attention and subsequent support to cereals, many households who were traditionally dependent on enset temporarily switched to cereals production. However, this switching process made farmers more vulnerable to further food insecurity as the cereals easily succumbed to various production risks such as seasonal drought and lack of fertilisers. As discussed in Chapter 5,

⁴³ Distribution of fertilisers is not the task and responsibility of the DAs. The DA provides advice on the importance of different fertilisers and packages to, application procedures and follows up. He/she registers those who are willing to adopt the packages and transfers the list to the *kebele* and *woreda* authorities. Collection of down payment, distribution and debt collection are undertaken by the *kebele* administration in collaboration with the *woreda* cooperative and agriculture team (personal experience).

many peasants in K-T zone have revealed that switching from enset to cereal caused them to pay a heavy price in terms of food security.

7.3.4.3 Policy factors

As noted earlier, the fertiliser subsidy, importation and distribution policy was reformed in the early and mid 1990s and the majority of responsibilities related to inputs supply were transferred to private holding companies that are affiliated to the central government. At the same time the new extension service was introduced in 1995. As part of government's wider campaign to encourage the uptake of the new extension service programme, fertilisers and seeds were offered to farmers on a credit basis and 25% advance payment particularly during the early years of the new extension service (from 1996 until 2000) (see, e.g. Belay 2003: 66; Samuel 2006: 18). As a result, many farmers including those who had very little land and were vulnerable ended up receiving the packages. However, during these periods farmers faced seasonal droughts and poor production and it became a major challenge for many households to repay input loans. As a result many households disposed of their critical assets to make the repayment. This situation created further distrust between peasant farmers and the government. A senior DA who has worked in the area for a long period indicated that this is one of the reasons why currently many farmers are not adopting packages:

'The input credit system did not work as it was hoped for. Many households have received inputs on credit basis and failed to pay back. Some poor households received the inputs and sold it right away at the market to meet their immediate needs. However, later loan collection became a major obstacle and as a result many households ended up in debt. Now, many households fear to take inputs or any other packages that involve credit. For instance, we have a poultry package which is affordable and could benefit those who are very poor households with small plots of farmland but they are not buying into it' (KI_SA/KEB-DA/25/01/2011).

Currently the cooperative unions and private firms are actively involved in fertiliser and seeds distribution for farmers. Although this system appears more efficient, DAs have raised issues that are challenging this approach as well. A DA noted:

'The packages arrive late, in poor quality or are incomplete. Last year [2010] farmers requested a short maturing maize that is more drought resistant. However, we have delivered a tall variety with long maturation period and very susceptible to stock borers. We have reported these issues often to

the *woreda* offices of agriculture, however these conditions have not been resolved' (KI_SA/KEB-DA/27/01/2011).

These policy/politics-related factors have seriously affected the effectiveness and impact of the agriculture extension service in Ethiopia in general and in the study area in particular. Other studies undertaken across the country (see, e.g. Degefa 2005: 302; EEA/EEPRI 2006) have revealed similar results to this study, showing that the extension services have played a limited role in increasing food security and reducing hunger of vulnerable and poor households.

7.3.5 Vulnerable and poor households' perspectives on extension services

A majority of focus group respondents indicated that the extension package programme in place has become part of the problem and caused significant challenges for their households' efforts in building resilient livelihoods. As a result many households are not adopting the extension package programme and hence are not benefiting from it for various reasons. Similar findings were reported by other studies in the region. For instance, Ayele (2008) has identified that in the neighbouring Wolita zone, many peasant households have stopped adopting the extension package, fearing the risk of default. Similarly, Spielman (2008:6) citing Bongor *et al.* 2004 and EEA/EEPRI 2006 reported 'Although many farmers seem to have adopted the packages promoted by the extension system, up to a third of the farmers who have tried a package have discontinued its use'. In a similar manner, a study undertaken across different regions of the country by an IFPRI team in 2010 revealed that the high cost of fertiliser is a serious barrier hindering farmers from fully adopting the extension packages available. The study further outlined other factors:

Other major constraints that affect extension indirectly are the high cost of inputs, a lack of inputs, late delivery of inputs, weak seed systems, transportation problems with the input system, monopolies on input markets, and a lack of communication and information sharing within the extension line departments from the federal to the *kebele* levels (Davis *et al.* 2010: 12).

The case study presented below in Box 7.1 narrates the main challenges facing households in adopting of the extension packages particularly fertilizers and improved seeds in the study area.

Box 7.1: Case study: The experience of an early adopter of extension package

Ato Arficho is a 55-year-old peasant residing in Messafe *kebele*. Some ten years back, he had a hectare of land and used to grow maize, wheat, teff, beans and other crops. In 2008, he rented out a quarter of his land for five years to his neighbour because he and his family faced severe food shortages. He indicated he was one of the first people who received the extension package when it started. However, since 2005, he stopped using the extension package programme due defaulting in the past. In 2006, he was forced to part with his ox to repay the loan of inputs he received. Further, he indicated that as the price of the packages is increasing sharply and the credit arrangement has changed the majority of peasants in his village no longer receive these, commenting: 'no one wants to burn his finger again', rainfall situation is becoming more and more unpredictable and the risk of production failure recurs often. In 2007, he stopped producing cereals except maize for green consumption and focused on growing khat (*Catha edulis*), which does not require fertiliser or as much rainfall as cereals. There is a good market demand for khat. He hopes that once his khat production establishes well his life will improve.

The household case study in boxes 7.1 and similar studies show that the high cost of inputs has become a major barrier to accessing the input packages. The participant in Case study 7.1 illustrates that due to the failure of production he became indebted and was forced to sell his critical asset to repay the debt. The fear of defaulting is a critical factor in explaining why many households no longer take up extension packages. Increasing input prices and payment arrangement have become barriers, as well, pushing households to pursue other options. As Swift and Hamilton (2001: 88) noted, diversification as a livelihood strategy (such as that demonstrated by the household case studies featured above) is 'a response to the failure of previous livelihood strategy'.

7.3.6 Views from extension experts and academics

Agricultural extension experts and academics share similar views and perspectives to those of the communities, DAs and individual households regarding the impact of the agricultural extension programme in reducing livelihood vulnerability. The majority of respondents indicated that, from a policy perspective, the ongoing extension approach is sound and based on the experiences of

previous extension approaches undertaken in Ethiopia. Further, the intention of the programme to increase productivity is the right step forward. However, the majority of respondents also signalled limitations to existing extension approaches. A senior food security and rural development expert who worked for a long period in the onset-dominant livelihood zone of southern Ethiopia argued that the ongoing agriculture extension system is not appropriate in the context of onset-dominant livelihood systems in that area.

‘Land shortage is a predominant factor and with the growing population, the size of land is shrinking at an alarming pace. As a result, the majority of households own very fragmented and extremely small size individual plots, literally too small to produce enough food to support their households. Thus, it is not sensible to promote a cereal-dominant extension service that requires large plots, good soil condition and regular water availability. Further, other risks [natural, social, economic, policy-and market-oriented] are affecting the agricultural production in these areas over time. Because of these inherent risks, many households are becoming heavily indebted since the start of the extension programme and subsequently becoming more and more vulnerable to future shocks’ (KI_HA/UN-WFP/03/05/2011).

Extension services are ill-suited to the social and agro-ecological context of the heavily populated onset-based livelihood zones. The quality of inputs, particularly of seeds, is questioned too. As noted earlier, since the restructuring of the agricultural inputs supply system, private firms and traders are in charge of the distributing inputs. More recently, local cooperatives and a small number of private traders and seed multipliers have become involved. As an informant at the regional BoARD indicated, this process has been plagued by a series of challenges:

‘Private seed multipliers and traders are often more concerned about their profit and maximum return of their investment rather than the quality of inputs they deliver. We have had serious issues with the adulteration of seeds with poor quality ones. Further, they often fail to deliver the input on time and this caused many challenges in the past. Given that agriculture is a time-sensitive practice, farmers cannot afford to lose important times they plant’ (KI_HA/RG-ARD/16/06/2011).

In principle, the presence of three DAs per *kebele* helps to reach the peasants and convey the extension messages. However, some studies have questioned the quality of the training that the DAs have received and their overall practical knowledge and experience. Ashworth (2005: 4) noted that ‘despite their three years formal training, many lack fundamental qualities such as listening

and learning from a very practical and rich indigenous knowledge that farmers possess, and incorporating that with formal and technical knowledge’.

A senior rural development expert at Hawassa University indicated that the nature of the extension programme implementation has contributed to its failure to address household vulnerability to food insecurity:

‘The extension system in Ethiopia in general and in enset-dominant areas in particular has been implemented as a sort of “political campaign”. The implementing actors at different levels were given certain quota to meet. As a result many poor households, including those who have not enough land, have ended up receiving the inputs. As a result of such a hasty approach many poor farmers have been trapped in a cycle of debt and forced to sell their last resort of assets to repay the loan’ (KI_HA/HU-AC-2/05/05/2011).

Another senior researcher and expert on agricultural extension at the same institute put forward a similar but slightly different critique:

‘The packages were designed on one-size-fits-all approach with very poor/limited understanding about the diverse agro-ecological variation, farming system and livelihood dynamics. As a result, the implementers at the local level [*Woreda* level agricultural extension staff, the DAs, *Kebele* administrators and other actors] view and understood that by just providing improved seeds and fertilisers to all farmers, the issue of food security could be resolved in a short span of time’ (KI_HA/HU-AC-1/17/05/2011).

He went further in elaborating that, in an ideal situation, the agricultural extension system should be menu-based, demand-driven and based on a knowledge-intensive process, rather than just delivering input packages and technical support. The extension system should also focus on two-way communication. In his study and field-level observations about the current extension system in Ethiopia, Ashworth (2005: 18–19) explained:

The current extension system essentially focuses on technology transfer. It conveys technical messages and packages to farmers, either individually or as groups. It tends to be a highly structured, top-down, prescriptive approach to technology transfer. The paradigm rests on the belief that outsiders (planners, extension, researchers) know the priority problems encountered by farmers and communities and are able to prescribe the appropriate solutions.

In line with the above observations, a senior rural development researcher at Hawassa University has shared his views on the impact of the ongoing agricultural extension programme in improving the food security of the poor and vulnerable groups:

‘The ongoing agricultural extension package model is similar to that of the *green revolution* approach, that focused on farm intensification and yield increment through provision of packages such as improved seeds, fertilisers, herbicides and irrigation facilities. However, in our case [Ethiopia] the package is not complete, as it doesn’t include the irrigation/water aspect, except the ill-advised water harvesting technologies that have occurred for a brief period. Thus, in a country like Ethiopia that is drought prone, the extension system that depends heavily on the availability of good rainfall condition is short-sighted and doomed to fail’ (KI_HA/HU-AC-3/10/05/2011).

Senior researchers at the Institute of Development Research (IDR), Addis Ababa University and the Forum for Social Studies (FSS) have provided similar perspectives. They pointed out that the current agricultural extension system fails to help reduce food insecurity and, indeed has made some more vulnerable.

Overall, the above findings highlight that the agricultural extension system that has been underway since 1994–95 has recorded a modest success in increasing agricultural productivity at the aggregate level, particularly for households with larger land plots and those who could afford the price of fertilisers and improved seeds. However, it falls short in supporting and improving the agricultural production and subsequent food security of the poor and vulnerable. Rather, it has become part of the problem and is aggravating household vulnerability to food insecurity. In particular, due to a poorly designed and implemented agriculture input provision system, many poor and vulnerable households became indebted and were forced to sell their assets to repay loans. As discussed in Chapter 4, progressive loss of critical assets left many poor and vulnerable households on the precipice. Thus, the extension programme is not protecting household from future shocks and *green famine*.

7.4 Productive Safety Net Programme (PSNP)

In January 2005, the government of Ethiopia introduced the PSNP in collaboration with its development partners. The programme started by targeting 4.8 million people who were classified as ‘chronically food insecure’ in 287 *woredas* in mainly in farming communities (Pankhurst 2009: 3)⁴⁴. However, in 2012, the number of beneficiaries reached 7.5 million people across 300 *woredas*. The overarching programme objectives are smoothing household food consumption, prevention of asset depletion at household level, and creation of assets at both household and community levels. In doing so, the programme envisaged strengthening household and community resilience to further shocks (FDRE 2006: 96; Devereux *et al.* 2008: 2; Ellis and White 2012: 4). The programme was designed to achieve these objectives over a five-year period, that is, by 2010. However, after a series of impact assessment studies and reviews the programme was extended into a second phase lasting until 2014.

As discussed in Chapter 6, given the long history of famine and seasonal hunger, humanitarian emergency support was a dominant response in Ethiopia for many decades. The reasoning underlying the promotion of PSNP as a new approach was that the predictability of the transfers (‘A safety net delayed is a safety net denied’) and minimising beneficiaries dependence would more effectively address the vulnerability of those who were food insecure (FDRE 2004:1). The programme has two components. Public works beneficiaries are households that have an able-bodied household member who can participate in community-level public works activities for five days per month for up to six months. The second component is direct support, which delivers unconditional transfers to poor households that do not have an able-bodied household member, and they receive their transfers free of charge (FDRE 2004: 4–6). As noted earlier, the transfers should be ‘timely and predictable so that households do not need to resort to harmful and irreversible coping strategies’ to meet their immediate food and non-food needs (Bishop and Hilhorst 2010: 189). The following section presents the perceptions and views of the PSNP

⁴⁴ The PSNP was rolled out in pastoralist and semi-pastoralist *woredas* of Afar and Somali region in 2010. However, in the lowlands of the Oromia *woredas*, it started at the same time as in other highland regions. Though it started at the same time, it is important to note that the implementation modality here significantly varies from the farming/highland areas (see Guush *et al.* 2011 for further details).

beneficiaries, non-beneficiaries and different actors on the impacts of the program, particularly in addressing household vulnerability to food insecurity and *green famine*.

7.4.1 Community perceptions

All three districts included in this study are currently designated as chronically food insecure and thus are covered by PSNP. Focus group discussions were undertaken with community members consisting of vulnerable and resilient households separately, enquiring about the role and contribution of the PSNP in household food security. A majority of resilient households offered a mostly positive assessment of the impact of the PSNP thus far. They indicated that ten years ago there were destitute groups in their community. However, currently these groups have decreased significantly and not visible as they were before. The reason mentioned for the decrease of destitute groups is the inclusion of these households in the PSNP, many of which are thought to have received support for 6 months of the year since 2005. A separate FGD across all six *kebeles* was undertaken with vulnerable households of whom the majority are receiving PSNP support. The FGD was facilitated to understand specific roles and contributions of the PSNP in their livelihoods. Overall, the responses are diverse but mainly positive (see Table 7.3).

Table 7.3: Reported impacts of the PSNP (ranked according to number of times mentioned during the FGD)

Overall rank	Impacts
First	Covered our food/cash need for six months
Second	Helped to send our children to school
Second	Improved our living conditions (housing)
Fourth	Improved our social status
Fifth	Helped us to create more assets
Sixth	Helped us to avoid destitution

Source: Author's fieldwork, 2011.

As can be seen in Table 7.3, the most cited impact of the PSNP is helping households to cover the food gap that they would normally face during the lean periods. In cases where the beneficiaries received their transfers in cash, this helped them to access food and enabled them to send their children to school. Overall, the results indicated that by covering their food shortages, the PSNP reduced the risk of vulnerable households from sliding into destitution and acute food shortages that exposes them further to *green famine*. Further, these findings also highlight that despite some challenges and limitations, the PSNP has played a modest role of both 'entitlement

protection' and 'promotion' by smoothing households' consumption and by 'preventing the loss of assets due to distress sales' to access food (Devereux 2001b; Devereux *et al.* 2008: 16). Further, the respondents indicated that the PSNP has helped them to construct new housing and subsequently improve their social and living conditions. Interestingly, participants also indicated that they were able to acquire new clothes with the PSNP cash transfers, which has helped them to restore their social status in their community. A PSNP participant in Messafe *kebele* revealed:

'Our situation has improved. Before the PSNP, we used to dress in very old and dirty clothes. As a result, we were ashamed to go to public gatherings, important social obligations and even to church. Now, thanks to the PSNP support, all my family members have new clothes and we keep them clean as we could afford to buy laundry soap' (FG_KB/ME-VCG/11/02/2011).

However, in contrast to these positive impacts, a significant number of households have also indicated that the PSNP is not helping them to fully address their vulnerability to food insecurity. When asked: 'Since you became a PSNP beneficiary, have you still been facing food shortages?' they gave the following responses:

'The amount of food is not enough to cover the food needs of our household. For instance, I am receiving a transfer for five members but I have a total of eight members, and the amount of food that is given is hardly covering the food need for my family. We just stretch it to cover our needs' (FG_KB/ME-VCG/11/02/2011).

'The amount of food is not enough to cover our food need. We are living in a community where most people are poor and we have to share whatever we have received. So, the PSNP transfer either should be increased or more people should be supported' (FG_KG/TG-VCG/02/03/2011).

'It is good that the PSNP transfer has been helping us a lot to cover our food need, but it is not enough to increase our assets. The transfer amount should be increased if the government wants to see us changed' (FG_KG/AD-VCG/25/02/2011).

In addition, almost all of the vulnerable households' respondents indicated that the potential impact of the PSNP is severely challenged by the delay of transfers, with the majority of respondents indicating that delay has been a recurring problem since the programme began. As noted above, predictability and timeliness of transfers to the beneficiaries are central elements of the PSNP in addressing the vulnerability of households. However, due to the delay of transfers the

programme's effectiveness in addressing livelihood vulnerability is significantly limited. The following quotes from respondents reflect this.

'We are not able to improve and bring changes in our living conditions with PSNP support. This is mainly because the transfer often arrives late. Since most of us do not produce enough food from our own and save it for hunger periods, we need to go for cash loans from our neighbours when the transfer is delayed. Thus, when the transfer comes the money goes straight to the lenders.'
(FG_DG/DI-VCG/29/03/2011).

'Though it is improving over the last two years, our PSNP transfer does not come on time. When it is delayed, we don't wait and starve. We go for local creditors who often charge us too much in return, and purchase food. Those of us who have few assets, sell them and access food. Had the transfer come on time, we could have kept our assets for the future' (FG_KG/AD-VCG/25/02/2011).

'Transfer delay is the main concern. We often receive two–three months after the actual time. For us, a delayed transfer means putting your money in a pocket that has a big hole. If you put your money in a pocket that has a hole, you know that you are going to lose it' (FG_KB/ME-VCG/11/02/2011).

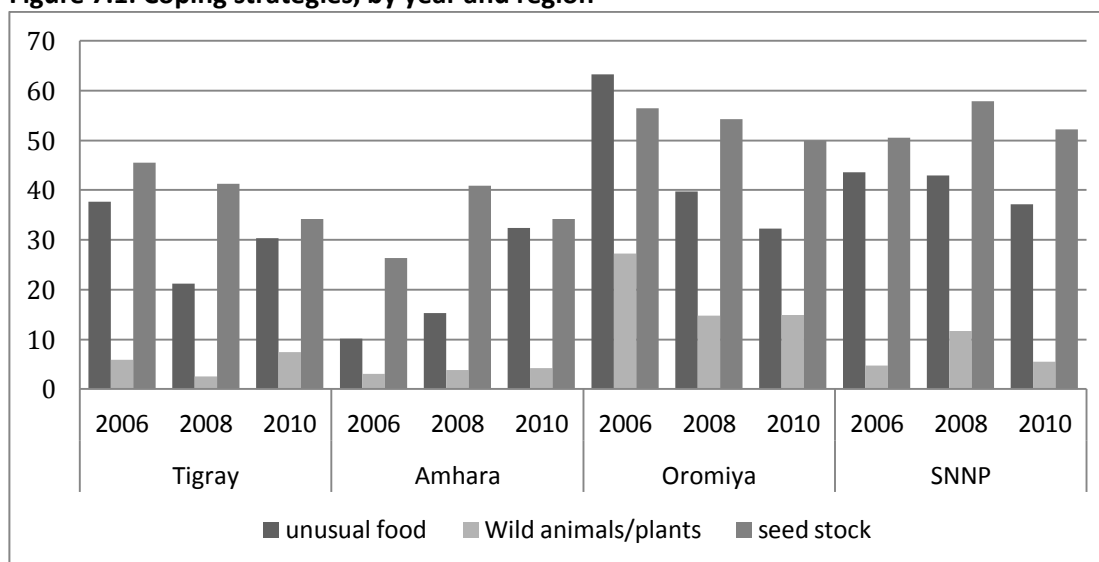
Overall, the community members indicated the positive impact of the PSNP. However, the majority voice concerns and problems with the timeliness of the transfers, which is jeopardising the positive outcomes of the programme. These findings are similar to other studies that are undertaken at the national level examining the perception of PSNP beneficiaries about timeliness and preferences of transfers (e.g. how often they wanted to be paid). For instance, a 2008 study indicated that 'the PSNP transfers (food and cash) are dependable (paid for all six months) but not predictable (not paid on time). Further, the study indicated that almost three beneficiaries in four (71.3 per cent) reported that they had encountered delays in PSNP payments in 2007' (Devereux *et al.* 2008: 43). These findings are backed up by a more recent evaluation by Guush *et al.* 2011, which found that there were significant delays in PSNP transfers (see Table 7.4).

Table 7.4: Beneficiaries' perceptions regarding the timeliness of payments (percent)

Region	2008	2010				
	(% saying yes)	Strongly agree %	Agree %	Disagree %	Strongly disagree %	Did not state %
Tigray	17	8	27	34	22	8
Amhara	40	9	35	38	16	1
Amhara-HVFB	52	32	36	24	8	1
Oromia	15	5	9	41	37	9
SNNPR	53	27	27	28	16	1

Source: Guush *et al.* 2011: 78.

As can be seen In Table 7.4, although there have been modest improvements in Tigray and Amhara regions in 2010 compared to 2008, transfer delay has remained a significant challenge in SNNPR and Oromia regions. In Oromia, the situation has even got worse whereas Amhara-High Value Food Basket (HVFB) *woredas* have improved significantly. The HVFB *woredas* case should be treated differently as these are selected areas where the PSNP is supported by USAID and implemented by NGOs unlike *woredas* under pure government implementation. Similarly, the qualitative results have also reflected strikingly similar results to the quantitative study. 'Out of 30 FGDs across Tigray, Amhara, Oromia and SNNP regions, 24 stated that payments were made irregularly and often they did not know when to expect payment from one month to the next' (Guush *et al.* 2011: 78). The above quotes by the PSNP beneficiaries highlight how they have coped with the transfer delays. As respondents indicated, when transfers were delayed, they were forced to adopt irreversible coping strategies to contend with food shortages. The severity of the knock-on effect of the transfer delay is higher particularly for the poor and vulnerable community groups as it increases their susceptibility to food insecurity and *green famine* by reducing their capacity against shocks. Guush *et al.* (2011) found that when faced with food shortages, PSNP-beneficiary households adopted irreversible coping strategies such as consuming seed stocks, unusual foods and wild animals and plants (Figure 7.1). The consumption of seeds is a strong indicator of the severity of the situation across all regions. The regionally disaggregated results show that in Oromia and SNNPR a considerable proportion of households reported having eaten their seed stocks in all years compared to Tigray and Amhara regions (*ibid.*: 36–37).

Figure 7.1: Coping strategies, by year and region

Source: Guush *et al.* (2011: 39).

7.4.2 Household perceptions

Individual case studies were undertaken with vulnerable households who are current beneficiaries of the programme, to gain a deeper understanding about the role that the PSNP has played in improving household food security and addressing vulnerability to shocks. In-depth case studies have illustrated the complex process and impacts of transfer delays on recipient households. Case studies in boxes 7.2 and 7.3 narrate the experience of PSNP beneficiary households with the transfers and packages they have received through the programme.

Box 7.2: Case study: PSNP beneficiary household performing better

Ato Mekango is a 55-year-old peasant farmer who lives in Wagebetta *kebele* with his family, consisting of his wife and seven children. All the children reside with him and four of them support the family with different activities. His main livelihood is agriculture. He owns one hectare of land and grows enset, wheat, maize, potato, cabbage and other annual food crops depending on the availability of resources and rainfall condition. Some 10–15 years back, he was considered to be a middle-level wealth household in his locality, as he used to own a pair of oxen, three milking cows, three calves, a donkey and some chickens. Further, he used to produce enough food to cover the food needs of his family. However, over the last ten years, his asset-holdings progressively decreased as he sold his assets to cover the needs of his growing family. Overall, life has become an uphill struggle for him. Considering his situation the community selected him to be a PSNP beneficiary in 2005. He has been receiving PSNP support for a total of seven people. In addition to the food and cash transfer, he also received a credit package of 1,500 birr and bought a bull. Currently, he is able plough his farm plot by pairing up his bull with others in the community. From the cash transfer he was also able to save 250 birr and purchased a goat. He fattened and sold it at a Christmas market for 600 birr and purchased a poorly cared for ox. After fattening the ox for two years he sold it for 8,000 birr. Further, he was able to buy four chickens and is now earning regular income from selling eggs in the local market and also consumes them with his family. He indicated that since he became a PSNP beneficiary, he is not worried about where and how he could cover the food needs during lean seasons. At the moment, he said his living condition is in a better situation. However, he fears that the *kebele* administration and the DA might soon ask him to graduate from the programme without establishing enough assets and building better resilience. He indicated that in order to have more secure living conditions, he would like to access more loans from the government and would like to engage in fattening livestock.

Box 7.3: Case study: A vulnerable household striving to build a resilient livelihood

Ato Kalbiso is in his early 50s and is a former resettlement returnee currently residing in Ashira *kebele* with his wife and four children. After the 1984 famine Ato Kalbiso was selected by the local authorities against his will to take part in resettlement programme and was taken to the north-western part of the country along with his five children. Upon arriving he faced a very difficult start. His entire family suffered from malaria and other diseases and as a result he lost four of his children. After a very challenging time, he was able to establish a stable livelihood working on two hectares of land he was provided with. He used to have five milking cows, a pair of draught oxen, a donkey, seven goats, ten chickens and some beehives. He used to produce 20 quintals of grain and he had surplus food for his family. Further, his wife was able to have three more children. However, after the collapse of the *Derg* regime in 1991, the situation turned bad. Host communities became very hostile towards the settlers and tensions become daily episodes of life, and as a result people started moving away.

Upon his return to his *kebele* of origin, his close relatives provided him with a 0.25 ha plot to establish a house. Given the size of his land, he was not able to produce enough food for his family, and thus he started working as daily a labourer for better-off households in the area and a nearby town. In 2005 he became a PSNP beneficiary. However, in 2008 things turned bad again and he could not get local employment and make his living due to the *green famine*. Thus the PSNP has become the sole source of food and cash for the family. As the situation become very severe, even households who used to support him came to him to seek food that he received from the PSNP. He said he had to share half of his food with his relatives and friends, and he and his family would only have a single meal a day. Currently, he receives for five members and life has become normal. His eldest daughter is supporting with income she gets from working as a daily labourer. He has a plan to start saving some of the cash he receives, but he has been unable to do so thus far as the transfer often comes late and he receives loans from local lenders to cover immediate needs. Since he became a PSNP beneficiary, he has been able to send his children to school and even local lenders are willing to give him a credit considering his regular income from the PSNP. He revealed that since he does not have other assets he could use as collateral, nobody would give him a loan if it were not for his PSNP status. Further, he indicated that his social status has also improved as he was able build new housing and has a radio.

The two life stories narrated in boxes 7.2 and 7.3 capture well how the PSNP has played different roles in the lives and livelihoods of vulnerable households in the area of study. In the case of the first household (Box 7.2), the PSNP not only helped in covering the food gaps, but also helped in creating more assets and building a resilient livelihood system. In a similar manner, in the case of the second household (Box 7.3) the story also underlines the dynamics of vulnerability that is brought about by the regime change and how that pushed a resilient household to become vulnerable and food insecure. Further, it underlines how the PSNP played an additional role beyond consumption smoothing. The PSNP helped to enhance the well-being of a household through improving the living conditions and acting as a reliable protection/insurance during an extreme situation like the *green famine* of 2008. A continues and regular income from the PSNP transfer also improved his status in the community.

However, the life story of a household that is making considerable progress in building resilient livelihood system through the support of PSNP and OFSP also underlines the contested issue of ‘graduation’ from PSNP. As noted earlier, the PSNP envisages that the beneficiaries would graduate (leave the programme) when they are able to accumulate a certain amount of wealth and meet a graduation benchmark that is set by the different regional governments during household asset registration. SNNPR’s graduation benchmark is 2,998 birr per capita.⁴⁵ However, the overwhelming majority of households discussed here indicated that the whole graduation process is unclear, unfair and too early before they are able to create even half the assets that are necessary to support their families in the face of shocks. The following comments reflect this:

‘PSNP really helped us to overcome the problems in many regards. The important aspect of the PSNP is its continuity and regularity. But recently, the DA had visited our homes and registered the assets we have and informed us to be prepared to graduate. This is very worrying for us because we have not made much progress in accumulating assets. The assets we have are not enough to cover the food gap that PSNP is covering to us’ (FG_KB/ME-VCG/11/02/2011).

⁴⁵ The regional benchmark for Tigray is 5,600 birr per capita, Amhara, 4,200 birr per capita, and Oromia, 19,187 birr per household.

‘This year we are told to graduate at least 20 PSNP participants. However, for me this is not realistic and I don't think we have this number of people to leave the programme. It is a good idea to encourage people to make efforts to develop a saving culture’ (KI_SA/KEB-DA /12/03/2011).

Interviews with the local authorities in the study area also revealed that they have a plan to graduate all public work beneficiaries at the end of 2014, when the current phase of the PSNP ends. As noted by the head of *woreda* food security and early warning in Kacha-Bira:

‘Initially we planned to graduate the majority of PSNP beneficiaries in five years’ time [2005–10]. However, due to the drought of 2008 and other challenges we face in 2011, we could not materialise the plan. Now, we have a new plan that is to graduate all the PSNP public works beneficiaries by 2014. This is the plan we have agreed with the zone and region administration’ (KI_KB/WO-FSEW/05/01/2001).

A study by Sandford *et al.* (2010) at the national level indicated a similar outlook on graduation to that expressed by the beneficiaries and the DAs above. The response by the local authority is a classic example of the quota-driven and unrealistic pursuit of graduation that the authorities are undertaking and planning across different regions of the country without proper understanding of the process of food security and livelihood resilience. Achieving food security and building a resilient livelihood system are inherently more complex and longer-term processes than simply reaching the graduation benchmark in a short span of time. In the same vein, graduation should not be treated narrowly as just reaching a certain cut-off point applicable across the region; rather, it should be identified and decided based on local and community indicators. To measure the level of resilience that indicates how long a beneficiary household has been able to withstand the shock and maintain its livelihood requires the inclusion of a time factor.

7.4.3 DAs’ perspectives

Given their close attachment to communities at the local level, development agents have first-hand knowledge about the overall implementation of the programme and the impacts it has had on the lives of the programme beneficiaries. Out of eleven development agents interviewed, nine said that the PSNP has helped protect destitute and vulnerable households from seasonal and unanticipated shocks. They echoed the views of the community that primarily the PSNP has

helped to close a chronic food gap that most of the beneficiary households face during the lean season, as the following comments show:

‘It helped those very poor and destitute households to stay where they are and not go down the hill of poverty and hunger. It also played a role in increasing social recognition and school attendance’ (KI_SA/KEB-DA/26/02/2011).

‘It reduced the food gap they used to face in the past and helped a few households to create assets. However, the payments are often delayed and this is a huge challenge’ (KI_SA/KEB/-DA/27/02/2011).

‘We are seeing very positive changes in regards to the PSNP. For instance there are many poor households who have successfully returned their leased land to themselves and there are also some who are able to send their children to school after being supported by the PSNP’ (KI_SA/KEB-DA/28/03/2011).

However, the DAs also noted that delays in the transfers and other administrative issues have hampered the impacts of the programme, confirming the outlook of focus groups.

In contrast to the majority view, two DAs said that the PSNP is not supporting poor and vulnerable households to build a resilient livelihood. They argued that the PSNP is the same as the food-for-work projects that were undertaken in the past, yet did not bring a significant change in the lives of vulnerable households. The following quotes reflect this:

‘Although the PSNP is much better compared to other emergency support, its impact depends on the individual beneficiaries. Some households have made good progress in diversifying and increasing their assets, but the majority of the beneficiaries have developed a “dependency” culture and are still at the same place since the start of the programme. Therefore, the impact of the PSNP at individual level is both negative and positive’ (KI_SA/KEB-DA/30/01/2011).

‘I think the PSNP has been rolled out without proper planning and mental preparation for both beneficiaries and implementers and this is causing a serious challenge for the impact of the programme. For instance, we gave a package credit for some of the PSNP beneficiaries, which they should be paying back on a rolling basis. However, most of the recipients have used it for different purposes and failed to repay. Now, the *woreda* asked us to deduct the loan from their monthly

transfer and as a result these households are getting a very small portion of their actual entitlement. Because of such deductions, the PSNP is not effectively helping the recipient households to improve their food insecurity' (KI_SA/KEB-DA/28/03/2011).

These findings, particularly the positive role that the PSNP played in smoothing consumption and helping in the creation of assets in some cases, are similar to other assessments and appraisals that have been undertaken in various parts of the country. Similarly, the full impact of the PSNP has been limited due to various factors such as delays in transfers to the beneficiaries and the changing prices of food and the occurrence of seasonal droughts and subsequent failures of production (Devereux *et al.* 2008; Ellis and White 2012; Guush *et al.* 2013). The findings also highlight that due to the delays in transfers and their non-arrival when needed badly, the PSNP is failing to protect the livelihoods of those households who are already living on the edge and to protect chronically food-insecure people from further shocks. As a response to the transfer delays, these households resort to irreversible coping strategies such as consumption of seed stocks, leasing out land from an area that is already very small for extended periods, which in turn is making them more vulnerable to future shocks and stress and thus undermining the programme's objective of minimising their vulnerability.

7.5 Other Food Security Programmes (OFSP)

The OFSP is designed to complement the PSNP, and its primary targets are the public work participants of the PSNP. It provides a range of complementary household packages (in kind and cash forms) to vulnerable households in the programme. The primary role of these packages is to diversify and increase the assets of PSNP beneficiaries and subsequently facilitate their graduation from the PSNP (Slater *et al.* 2006: 13). The most popular types of packages delivered across all the regions are livestock rearing, fattening of oxen, sheep/goat dairy production, petty trade, beekeeping, vegetable production, donkey carts, small-scale irrigation and many others (Devereux *et al.* 2008; Guush *et al.* 2013). These packages vary from region to region and from household to household. For instance, the 2013 evaluation survey identified the most popular activities (packages) proposed in business plans in SNNPR include cattle fattening (21 per cent), irrigation and water harvesting (16 per cent), soil and water conservation (15 per cent) and input (seeds and fertilisers) 15 per cent, with poultry 1 per cent and all others 48 per cent (Guush *et al.* 2013: 160).

Interviews with DAs indicated that they have provided various types of packages to PSNP beneficiaries over the five years period. They have further indicated that those few households who have received the OFSP packages are able to build their assets and diversify their income. However, different factors have affected the wider impacts of the OFSP packages. Interviews with the *woreda*-level food security actors across in all three districts revealed that the OFSP package coverage was very limited, reaching few PSNP beneficiaries. As noted by a *woreda* food security coordinator during the discussion:

‘We did not receive enough OFSP resources from the regional level to provide to the PSNP beneficiaries. This put us under serious pressure from the PSNP beneficiaries and we had faced difficulties to prioritise and deliver the resources. We identified a few beneficiaries who we deemed were proactive and could use the resources and be a model for others’ (KI_KB/WO-FSC/05/01/2001).

This shows that lack of resources has been a major challenge in the OFSP. Due to limited resources, the *woreda* actors were forced to spread the available packages among a few beneficiaries and prioritise only those who were considered better performing and delivering results, bypassing those who are the majority of the poor. As a result, the majority were left out of the programme and consequently did not benefit from this programme component.

A key informant interview with the DAs further revealed challenges faced by the OFSP programme in their *kebeles*. Out of eleven DAs interviewed, seven indicated that the size of the OFSP package is too small to make a significant contribution in helping the recipients to increase their assets. Further, they have highlighted that in most cases the packages were standardised and were not tailored to the interests and needs of the beneficiaries, as the following comments reveal:

‘We have been told to promote and distribute modern beehives while the majority of the beneficiaries in our *kebele* wanted to have donkey carts and an ox-package’ (KI_SA/KEB-DA/27/02/2011).

‘During the first round, we gave 1,600 birr per beneficiary. This amount is very small if a beneficiary household wanted to do small business or other income generating activities such as to run a tea shop or local food store’ (KI_SA/KEB-DA/30/01/2011).

In addition to the limitations of size and standardisation of the packages, other administrative issues have hampered the impact of the programme. The packages are delivered to the beneficiaries as a revolving credit system where the recipients are expected to return the seed money after some years. However, many households who have received the packages have failed to repay the loans. As a result, the loan recollection responsibility has fallen into the hands of *woreda* and *kebele* officials and the DAs. Many recipient households were pushed to repay their loans by selling whatever meagre assets they possessed. For those who do not have assets to sell and pay back, the *woreda* and *kebele* administrators have used different mechanisms to collect the debts. For instance, a DA in one of the districts indicated that he has deducted the loan from a beneficiary's monthly PSNP transfer.

The other challenges affecting the outcomes of the OFSP are the level of risks that are associated with the livelihood strategies that the beneficiaries are involved in. Most OFSP beneficiaries have been involved in on-farm activities where there are inherent and multiple risks such as the outbreak of disease (animal and crop), market, rain failures and others. Due to these risks many households have lost their investment over time and yet are forced to pay back the loans they have received. This situation has put many households into the trap of debt and food insecurity. As a result, the packages have become a source of vulnerability rather than supporting households' livelihood resilience against the shocks.

Similarly, DAs have indicated that there was a mismatch between what the beneficiaries wanted and the packages that were available both in terms of size and types. In some cases beneficiaries received packages they had not asked for and as a result they did not make the best use of them. Yet, they were forced to pay back the value of the packages that they received and that the debt created by the OFSP became a shock in itself, which required asset depletion to cope with. Overall, the impact of the OFSP, similar to other food security programmes and interventions put in place to reduce the livelihood vulnerability to food insecurity, has shown a mixed result due to these various factors. As a result, it can be argued the food security programmes particularly the extension packages and the OFSP are not protecting households from the risk of *green famine*.

7.5.1 Household perspectives

Households who have received both PSNP and livelihood packages/credit have indicated that they were able to increase their assets. Access to credit has enabled them to engage in different livelihood activities and earn extra income in addition to that derived from their main source of livelihood. However, many respondents indicated that the packages were not tailored to specific household needs and interests. As a community focus group participant put it:

‘In our *kebele*, the majority of PSNP beneficiaries have received a livestock package, even those who have very small plots of land and no access to pasture and feed. How will these people get good pasture and other sources of feed to fatten their animals? I don’t understand why everyone should receive the same package while everyone has a different livelihood situation’ (FG_KB/AS-RCG/16/02/2011).

In contrast, few OFSP beneficiary households indicated that livelihood packages have helped them to earn extra income and thus, strengthen their resilience (see Box 7.4).

Box 7.4: Case study: A household that received a donkey cart as an OFSP package

Mankore is a 35-year-old PSNP beneficiary. He lives with his wife and three children aged two, five and nine in Ashira *kebele*. He has 0.25 ha of land where he grows some enset trees and vegetables. His wife takes care of the children and also works as a daily labourer for better-off households in the locality. Every morning, he gets up and travels an hour to the nearby town to work as a daily labourer. With the money he earns, he buys food for his family. Sometimes he comes back empty-handed. He lived in such uncertain conditions for a long time. However, in 2005, things changed when he became a PSNP beneficiary on the grounds of poor economic/asset levels. He receives a transfer for four family members.

In 2007, he received a household package credit worth 1,600 birr and bought a donkey cart. He rented a donkey for 10 birr per day from a better-off household. With his donkey cart, he provides a service for people who need to transport grain, fuel wood and different items from rural areas to the nearest town and back. He also provides a 'local ambulance' service carrying sick people on the donkey cart to the public clinic in Shinshicho town and charges 40 birr for a round trip. He makes up to 200 birr a week and contributes 50 birr a week for *equb* (informal saving/credit system). He indicated that, because of the regular income from the transport business and food transfer for six months from the PSNP, he does not need to consume his enset from his own farm and is keeping it as security for the future. In 2011, he collected 3000 birr from the *equb* and has returned the loan package. He has three big plans for the future: first, he wants to buy a donkey and an additional cart in a year's time (2012); he plans to work together with his younger brother. Second, with the money he earns, he wants his wife to start up a petty trade in her *kebele*. He will support his wife by bringing goods from town by using his donkey cart. And third, he wants to construct a corrugated iron roof house for his family.

7.6 Conclusions

This chapter examines the contribution of government food security interventions in reducing household vulnerability to food insecurity, hunger and *green famine* in K-T zone. Overall, the food security policies and programmes undertaken by the Ethiopian government to address livelihood vulnerability to food insecurity, hunger and famine are making some progress. However, they fall

short in promoting the livelihoods of the poor and vulnerable households and protecting against *green famine* in the study area due to the various factors identified in this chapter.

Improving the agricultural productivity at the household and national levels through the provision of improved seeds and fertilisers is an important step towards improving and ensuring food availability and subsequent food security. This has been a tried and tested approach in many countries. As Devereux (2001b: 268) noted, the introduction of 'hybrid maize smallholders in Malawi, and Green Revolution in India and other Asian countries have played a critical role in achieving the roles of both production increase and food security'. However, putting too much emphasis on the increasing productivity and availability of food fails to take into consideration the multi-dimensional nature of food security. Food security goes beyond increased food production and availability at the household and national levels and addressing only one aspect of an entitlement to food cannot go further in ensuring food security and reducing vulnerability to *green famine*.

As discussed in chapters 2 and 5, the enset-dominant livelihood zone in K-T zone has different livelihood characteristics from the cereal-dominant zone. In this livelihood zone, root and tuber crops such as enset, sweet potato, potato and taro play a significant role for household food security. The ongoing extension service is dominated by cereal and cash crops and does not include enset and sweet potato in its package. Further, in addition to its inappropriateness, it is poorly designed and implemented and favours a few rich peasant farmers with bigger farm plots over the poor and vulnerable. Due to these factors, the extension service is increasing the susceptibility of households to future shocks and food insecurity and is not protecting households particularly the poor and vulnerable from the risk of *green famine*.

The government should revamp its input delivery and pricing mechanisms and reconsider subsidising it so that those poor and vulnerable households who are supposed to be the main beneficiaries of the programme have better access. Given the nature of risks associated with small-scale agriculture, the impacts of seasonality should be given strong attention and introducing certain insurance/guarantee systems (Pankhurst 2009: 11) might be an option to mitigate and reduce different risks such as production failure, market volatility, outbreaks of animal and crop diseases, and policy-related and other risks. Improving agricultural productivity at

household level should work in tandem with other interventions that help to reduce household vulnerability by protecting different sets of entitlements.

The AESP should also take on board non-cereal crops such as enset, taro, sweet potato and others, which have a proven potential of relieving millions from hunger. Further, the government should consider policies outside agriculture that would address vulnerability and promote non-farm livelihoods.

Despite the failure to achieve its key goal (the graduation target), the PSNP has helped in reducing livelihood vulnerability and enhancing the resilience against shocks that could have pushed those vulnerable households over the edge (protection role). It has also helped in improving their well-being by enhancing their social status in the community. With the availability of regular transfers and resources (secured transfer entitlements), the possibility of vulnerable households facing acute food insecurity and resultant *green famines* has reduced. The OFSP that comprises different livelihood packages supposed to play an entitlement promotion role (Devereux 2001b) by helping the PSNP beneficiaries to create assets and build their resilience against shocks. However, its coverage was very limited and the packages were not suitable to a unique livelihood zone in K-T zone. In very limited cases where the PSNP was integrated with OFSP, it helped households to bounce back from shocks. In the terminology of Frankenberger *et al.* (2012, cited in Vaitla *et al.* 2012: 5), PSNP played both a relatively 'flat trajectory (bounce back) and downward trajectory (recover, but worse off than before').

However, like other food security programmes and interventions in Ethiopia, the greater impact of the PSNP was hindered by various factors. Delay of transfer of resources was one of the main obstacles that have negatively affected the outcomes of the PSNP (entitlement protection role) in the terminology of Devereux 2001b. The knock-on effect of the resource transfer delay is severe on particularly vulnerable and poor households as they often adopt irreversible coping strategies such as selling assets, which are often too small to resolve the situation. In turn, the consequence of adopting such coping strategies has serious implications on the capacity and resilience of the livelihood against shocks in the future and unless, this issue is properly addressed, government's effort to reduce food insecurity, hunger and *green famine* in the study area could be futile. As discussed in chapters 4 and 5, over the past two decades, the resilience of livelihoods in the study

area has been in decline and consequently there is growing food insecurity and *green famine*. However, due to insufficient coverage and other reasons identified, the PSNP and OFSP are not fully addressing these situations. Thus, the government should consider expansion of the programmes by refocusing on entitlement protection and enhancing livelihood resilience of poor and destitute groups in K-T zone.

The policy of 'graduation' based on the size of assets that the beneficiaries have accumulated during their stay in the programme lacks the central aspect of achieving food security and building and maintaining livelihood resilience against shocks. Some households might achieve and reach the graduation threshold under normal conditions (without experiencing different covariate and idiosyncratic shocks). However, if they face shocks and fall back to their original situation, it can be considered as a failure. Thus, graduation should be context-based and seen as achieving resilience against shocks over time.

CHAPTER 8

Conclusions and implications for future research

8.1 Summary and conclusions

This study set out to investigate and understand the underlying causes of famine in general and of *green famine* in particular, in the enset-dominant livelihood zones of Kambata land in southern Ethiopia that are historically considered more resilient and less vulnerable to hunger and famine than other parts of Ethiopia. The study also aimed at capturing perceptions of people at different levels, about the causes of *green famine*, and sources and trends in vulnerability of rural livelihoods. It examined the local dynamics of food insecurity, how households are coping with the recurrent shocks and how government policies and programmes are addressing these issues. This study employed multi-site, rigorous qualitative research techniques to capture the experiences and perceptions of different actors at different levels regarding the causes of *green famine* in the study area.

Rural households in K-T zone engage in diverse livelihood activities to ensure their current food needs and secure their future livelihoods. Smallholder and subsistence-oriented agricultural production integrated with livestock is the predominant livelihood in the area of study. In addition, households also undertake various livelihood activities including daily labouring, selling fuel woods and fresh grass, seasonal and long-term migration and caste-based occupations (blacksmithing, pottery-making and tanning) on a full- or part-time basis. Caste-based occupations are specialised activities primarily undertaken by low caste and minority groups.

Chapter 5 sought to examine the trends and sources of livelihood vulnerability and identify which livelihoods are becoming more or less vulnerable to different shocks and stresses and current state of livelihoods and food (in)security. The chapter has shown the central role played by enset and its contribution to household food security among the Kambata people. The utilisation of enset was identified as one of the reasons that the enset-dominant livelihood zones of southern Ethiopia are known to be resilient and less affected by hunger and periodic famines, compared to the cereal-dominant and pastoral livelihoods in other parts of the country. However, over the last

two decades, the enset-dominant livelihoods have lost their resilience against shocks and have become more vulnerable, especially to rain-related shocks. As a result the central and regional government early warning and food security offices have categorised the enset areas as ‘hotspot’ areas for food crises and recurring severe malnutrition. Community discussions, household cases studies and in-depth interviews with experts in the area have indicated different factors have contributed to the weakening of the resilience of local livelihoods. These factors are of natural/climatic, demographic, socio-economic and policy-oriented origin. Among these, the persistence of enset bacterial wilt was identified as the most important factor, not only affecting mature enset trees and subsequently affecting the production-based entitlement, but also disrupting the trees’ ‘age-based succession and production system’ (Dessalegn 1996). The occurrences of drought and seasonal rain failures also significantly affected the resilience of the enset livelihood system. When cereal crops fail, the middle and poor wealth groups heavily rely on enset as the main source of food and livestock feed. The recurrence of these factors has forced many households to consume immature enset and consequently many households have very little or no immature enset on their farms. When a shock occurs, susceptible households become exposed to hunger and green *famine* as their production-based entitlement is severely compromised. Due to drought, distress sales and shortage of grazing lands, the livestock size and production has been in a declining trend over time and these negatively affected the production of enset.

As the study was primarily aimed at understanding and unpacking the causes of food insecurity and resultant *green famine*, it approached the causal analysis process through the lens of Sen’s entitlement analytical framework of famine (Sen 1981). This framework was chosen as it supports the identification of a range of different reasons why a household or a community could face famine at a given time. Further, this framework outlines that famine occurs not due to a food shortage at aggregate level, but when different *sets of entitlements* of a household fail due to various confounding factors. This analytical framework is particularly relevant in the case of food insecurity and famine study in Ethiopia, where the dominant discourse still explains the causes of food insecurity and famine as a result of food shortages due to natural and demographic aspects (too many people, too small farmlands).

Chapter 4 presented the central theme of this research – *green famine* – by tracking its historical timeline in Ethiopian famine history and famine research. The term *green famine* refers to the occurrence and spread of food crises and resultant famines in the green and lush enset-dominant livelihood zones of southern Ethiopia, historically considered as relatively food-secure areas. Despite the existence of *green famine* in southern Ethiopia since at least the 1980s, it did not receive much attention and has failed to attract policy and research interest due to its geographic spread outside of ‘the traditional famine zones’ (northern and central highlands and lowlands) of the country (Dessalegn 2009: 43). However, since the beginning of the new millennium it has received greater media attention, locally and internationally, as the crisis recurred in 2003, 2008 and affected more and larger areas.

This study investigated the underlying causes of an increasing vulnerability of the enset-dominant livelihood system in Ethiopia. This livelihood system is unique and quite diverse compared to cereal-dominant livelihoods in other parts of Ethiopia. The specificities that apply for this context include dependence on enset as a staple food source, bi-modal rainfall pattern and heavy reliance on *belg* rains for household food production, and seasonal and permanent migration-based livelihood strategies.

The chapter also introduced the conventional narratives around the concept of famine. Despite the overall understanding and conception of famine having come a long way since the 1980s, it remains fuzzy and contested among different actors. In general, the concept of famine has remained an unresolved and divisive issue, particularly among different actors who are involved in policy formulation, famine response and management. Some argue that famine is a one-off event resulting in great mortality. This view is historically dominant and widely influenced by Malthusian thinking. For others, famine is a process with a series of phases and does not necessarily result in excess mortality. De Waal (1989: 191), for instance, argued that mortality during famine situations is not necessarily related to starvation and hunger, but to poor hygiene and sanitation and health services provision. He further explained that affected people do not associate mortality with famine and that focusing on ‘famine deaths and skeletons’ is more the preoccupation of outsiders, particularly – in his phrase – ‘famine tourists’ of Western aid agency personnel and the media (ibid: 30). This latter thinking supports and is consistent with the way famine victims and insiders

experience and define famine. Insiders, particularly famine-affected people, have different views on hunger and famine compared to outsiders such as famine experts and policy-makers. Resonating with this view, the study has shown that the Kambata communities in the study area perceive and define famine as a complex process with different phases that causes widespread social, economic and well-being suffering for the people. The first phase is *shoomma*, a minor feeling of hunger that occurs when one does not get food at a normal or regular time. The second phase is *gorro*, literally meaning hunger. This is a more severe condition where households face a shortage of food. In this phase, the informal social support system within the community is still intact and those who are in need can make use of it. The third phase has two sub-levels. The first is *udufunne/qaa'ne*, a situation of extreme food shortage when those affected are failing to receive informal support from their relatives and patrons. This is equivalent to a destitution stage where households are running out of options. The second sub-level is called *yewulle*. If external support does not arrive at the *udufunne* level, the situation evolves to *yewulle*, literally meaning 'being swollen' as many of those affected start showing symptoms of malnutrition, with swelling particularly in the legs and stomach, which are signs of nutritional oedema. Death is a final stage that occurs only when external interventions have failed to arrive on time. These findings are consistent with other previous studies such as Mesfin (1984) in Wollo in northern Ethiopia, de Waal (1989) in Darfur, Walker (1990) in southern Ethiopia, Deng (1999) in Southern Sudan, Bevan and Pankhurst (2004) in different villages in Ethiopia and Degefa (2006) in North-western Ethiopia.

By reviewing the political economy of famine in general and *green famine* in particular, the study highlights several reasons why the issue of *green famine* has failed to be recognised and considered as 'famine' despite its visible effects on the lives and livelihoods of millions of people in southern Ethiopia. The following points are key:

- (1) Famine classification in Ethiopia is heavily influenced by historical and political processes (de Waal 1989; Lautze and Maxwell 2007) and declaring *green famine* as 'famine' could have negative political and economic consequences for the regional and federal government of Ethiopia, both locally and globally, particularly with its donors.
- (2) The geography of famine is a critical factor in the case of *green famine*, as it happened in an ethnically divided regional state with less political importance and weight to influence actions at the federal level. Therefore, alarming indicators passed unnoticed and were not acted upon (Vadala 2008: 14).

- (3) The green and lush agro-ecology in the majority of enset-dominant livelihood zones of southern Ethiopia has concealed the occurrence of chronic food insecurity and a growing livelihood crisis. Thus, improved understanding of the types of livelihood strategies and sources of livelihood vulnerability is vital for designing effective policies and responses to act on food insecurity and livelihood failures.
- (4) Conceptualising and perceiving famine as *a sudden event* and attributing its cause with weather-induced shocks and demographic and natural factors and results in *widespread* mortality, among influential actors at regional and national level has played a role in failing to acknowledge and categorise *green famine* as famine.

This study challenges the classic view of natural and demographic reasons being responsible for food crisis and famine, and demonstrates that the cause of *green famine* goes beyond the dominant narratives of drought and population growth, and that these factors alone cannot fully explain the occurrence of famine. The empirical findings, as presented in Figure 4.2, demonstrate that *green famine* is an outcome of multiple vulnerability factors that have been recurring over time and affecting the livelihoods of people and their entitlements to food in K-T zone. These causal factors include changing pattern of rainfall distribution, recurrent drought, inappropriate policy intervention and poor implementation, lack of employment opportunities, decreasing land size, failure to acknowledge (denial and cover-ups, underestimation of acute food insecurity and famine conditions) and respond by state and relevant government actors, poor understanding of growing vulnerability situation and limited research. Due to these diverse factors, livelihoods for many have already weakened over a long period. *Green famine* has been coming for some time, although it was only recognised by outsiders, particularly policy-makers, in more recent years. The findings are specific to this livelihood context; however, they shed light on conceptions of food insecurity and famine by introducing a multiple-causes perspective and challenge the dominant discourse of causes of food insecurity and famine in Ethiopia invariably associated with natural and demographic factors. In so doing, this study highlighted the significance of political and policy processes (human action or the role of state and non-state actors) in increasing livelihood vulnerability to different shocks over time and facilitates the development of insecurity and progression of famine situation. Understanding how the political and policy process have negatively affected the resilience of livelihoods of people over time helps to improve the general conception of famine as a long-term vulnerability process rather than a sudden event affecting

certain geographic or livelihood zones and their poor and vulnerable populations. By unpacking these causal factors, the study helps to improve our understanding of the causes of contemporary famines in famine prone regions of Africa and adds to the existing literature on theories of famine in general.

The findings indicate that different policies introduced over time in the area have played a significant role in increasing the vulnerability of people and creating a context conducive to the occurrence of *green famine* in the study area. The introduction of inappropriate agricultural policies favouring cereal and cash crop cultivation over enset in a traditionally enset-dominant area have played a significant role in increasing household and community vulnerability to food insecurity and *green famine*. At the same time, lack of policy attention to enset, a culturally important staple crop, also contributed to the occurrence of *green famine*.

The introduction of an ethnic-based federal system in Ethiopia in the early 1990s restricted the movement of people from one region to another, and hence reduced their access to seasonal employment opportunities (Lautze and Maxwell 2007: 229). This particularly affected the Kambata ethnic groups in the study area who are renowned for their seasonal migration to different regions (Alemayehu 2001: 10). This change has hindered access to seasonal employment in neighbouring regions for many people from the study area, directly affecting their labour-based entitlements. Due to this policy, ethnic tensions and conflicts have occurred resulting in loss of livelihoods and reverse migration of people who used to live permanently in other regions back to K-T zone. In addition to this, during the regime change in 1991, many soldiers who were in the army during the previous government were demobilised and returned to their localities, adding more pressure to the already low cultivatable land availability. Thus, the returnees and demobilised soldiers have become prospective vulnerable groups for future shocks. The study area is one of the most densely populated in Ethiopia with a total population of 698,616 and 584 persons per sq.km in Doyo-Gena, Kacha-Bira and Kadida-Gamela districts, significantly higher than both the regional and national-level densities, which are 164 and 76 respectively (2012 projection). The area has experienced a very fast population growth over a decade; in 1999, the estimated population density in Kacha-Bira and Kadida-Gamela was 413 and 499 persons per sq.km respectively (Belachew 2001: 128). As a result of a rapidly growing population and restricted movements to other regions, the average land-holding size has reduced and in most cases has reached a sub-

optimal size to produce enough food to support a household. As a result, many peasant farmers have faced regular food shortages because they are unable to produce enough food even in years considered normal in terms of rain distribution. This is further compounded by a loss of seasonal employment income and increasing food prices. As a result of these complex factors the majority of households were in a chronic food insecurity situation. This situation has increased their vulnerability to future shocks and results in hunger and *green famine*.

The study also identified factors that have played a role in triggering the occurrence of *green famine*. These factors include the failure of *gillalo/belg* rain and subsequent *belg* crop production failure, an outbreak of sweet potato wilt disease, the sudden hike of food prices (in some markets up to 300 per cent in 2008) and response failure by the authorities. In particular, the denial and under-reporting of the magnitude of the crisis during the 2007–08 *green famine*, played a major role in spreading the effect to wider areas. In Lautze and Maxwell's terminology (2007), the 'politicisation of famine' has become a major concern in the current political landscape because regions and zones reporting larger numbers of emergency caseloads are considered to be not performing well in the view of the regional and federal authorities.

In sum, the occurrence of the above factors has negatively affected the resilience of the enset-dominant livelihood and has increased household vulnerability to food insecurity and *green famine*. The findings of this study also indicated that the majority of communities perceive a significant change in the community wealth groups over the last ten years: many households are becoming poorer and destitution is growing. The empirical findings highlight that the overall production of food crops in the area is decreasing due to increasing prices of inputs, recurrence of rain failures, decreasing land plot sizes and policy-related issues, resulting in an expanding food insecurity situation. This was demonstrated by the increasing number of people in the study area surviving on different government emergency relief over the last 15 years. For instance, during 2007–08, of a total of 783,610 people in K-T zone, 26 per cent faced extreme food shortages and survived through emergency relief and 13 per cent through the regular government PSNP support and 5 per cent were declared 'at risk and required close monitoring' for possible emergency support.

Chapter 6 also investigated famine thresholds and indicators of famine scales and measurements by different external actors and famine scholars in measuring and classifying food crises and famine levels. By analysing Howe and Devereux's famine severity and magnitude scales and the FAO's IPC scale, I have critiqued and indicated their weaknesses in famine measurement and classification. These two scales have included the significance of coping strategies as indicators of the severity of famine in a given context, but their measurement and classification of famine is heavily based on the results of anthropometric malnutrition measurements and crude/under-five mortality rates. I have challenged this widely held view by suggesting alternative famine measurements and scales to judge the severity and magnitude of famine. This study demonstrated that understanding and defining famine based only on those indicators considered 'objective and scientific' is misleading. The causes of these indicators such as malnutrition and higher mortality are more complex and not necessarily directly related to hunger and famine. Collecting and analysing nutrition survey is more complex and requires very elaborate logistic provisions and human and financial resources. Further, this study has argued that the current thresholds of quantitative indicators and anthropometric outcomes that are used to declare a famine are very high and waiting until these thresholds have been reached is causing unnecessary suffering of people and livelihood deterioration and undermining efforts to prevent famine occurring in the future. Thus, this study suggested considering lower cut-off levels for GAM, SAM and mortality rates so that livelihood destitution is averted, full-blown famine is prevented and famine suffering can be stopped at an earlier stage. The revised famine scale (Handino famine scale) addresses these challenges by incorporating the perceptions of famine victims and types of coping strategies adopted along with reduced thresholds for anthropometric and mortality rates in its famine analysis and classification.

This study has shown how these famine scales and measurements that are considered as 'objective and scientific' by these actors are missing a central point in defining and measuring of food crisis and famine events. They failed to consider and incorporate the views, perceptions, experiences and coping strategies that are adopted by famine victims and communities that are directly affected by the incident. The idea of including coping strategies as predictors of impending food crisis and famine particularly in famine early warning systems, has been around for quite some time, and hence this research does not claim it as a new concept. However, what this study argues and demonstrates is that locally defined and culturally and livelihood specific coping

strategies can also be applied to measure the severity of a famine situation. This study argues that the current and conventional understanding of famine, which views famine as an event of food crisis resulting in greater mortality, is playing a role in delay and failure of famine response and livelihood failure. Thus, failing to define famine as a process and response failure by concerned actors are major factors in the continued occurrence of famine and resultant suffering for hundreds of thousands in Africa in particular.

By adopting local experiences and the perceptions and particularly the conception of famine victims, the study investigated food insecurity and *green famine* situation in the context of the onset-dominant livelihood zone in southern Ethiopia and categorised as a minor famine as opposed to simply food crisis situation by the Government of Ethiopia and different actors. The definition and concept of famine of the Kambata community supports the emerging view put forward by different famine scholars that perceives famine as a process, which is defined not only by mortality but also by its effect and the loss that it causes in the livelihood of people and the strain caused to the social fabric and support system of the community in the short and long term. Despite the fact that the local perceptions and type of irreversible coping strategies adopted by households during the food crisis and *green famine* periods apply to this specific context, they also can be applied in different livelihood, social and political contexts. As Chapter 6 shows, unless the magnitude of the crisis is too severe and is beyond the coping capacity of households, they do not adopt irreversible coping strategies that will have severe ramifications on the long-term viability and impacts on their livelihoods. To reiterate, households do not opt for irreversible, culturally unacceptable coping strategies unless they are facing famine. As shown in this research, during the *green famine* of 2007–08 some households even ‘lent’ their own children to other people to get access emergency relief provided by international humanitarian agencies. In a culture and society where children are very much valued, considered as sources of future pension and ‘means of continuity of a household and clan’ (Belachew 2001: 216) this exploitation of children indicates how severe a situation has become. Further, renting out land for extended period or selling other livelihood assets that have strong cultural and sentimental values, consumption of seeds that are meant for future production, consuming and abandoning livestock (in the case of pastoral communities) also indicate the severity of famine.

The study investigated how the government's food security policies, programmes and strategies in place are addressing and reducing households' livelihood vulnerability to food insecurity and *green famine* in the study area. It particularly investigated three specific food security strategies and programmes: (1) the agricultural extension programme, (2) the Productive Safety Net Programme, and (3) the Other Food Security Programmes, now called the Household Asset Building Programme.

The findings highlight that understanding food insecurity and famine, as being a result of food availability shortage and consequently designing nationwide policies supporting greater agricultural output and food availability at national and local level, cannot fully address the structural problems of food insecurity across the country. Although designing agricultural policies that increase food production at the household and national levels is a significant step in the right direction given the country's subsistence-oriented agricultural system, improved production alone is not enough to ensure food security and stave off famine. Case studies, community discussions and key informant interviews with relevant actors in this sector have strongly indicated that the cereal and cash crop focused extension services are not appropriate in the context of enset-based livelihood zones. It was found that the majority of households who participated and received the credit package have become indebted due to recurrent production failures and hence the extension programme has actually contributed to their vulnerability as a policy-induced factor reducing household livelihood capacity against future shocks. Thus, it can be argued that the agricultural extension programme is not protecting the poor and vulnerable households from the risk of *green famine* in K-T zone. This advocates for policies and strategies aimed at addressing various vulnerabilities (social, economic, policy-oriented, political and natural) affecting livelihoods, rather than merely striving to increase agricultural productivity. The findings also indicated that the agricultural policies are designed on a one-size-fits-all approach without proper consideration of differences that exist within the country. This calls for policies and strategies that are tailored and specific to particular livelihoods that exist in each region.

This study shows that despite various challenges related to effective implementation, the PSNP is playing a significant role in reducing the hunger gap, protecting vulnerable households against further asset depletion and strengthening livelihood resilience against diverse shocks. By ensuring

regular food availability and access for targeted vulnerable households, the PSNP reduced their susceptibility to acute food shortage that exposes them to *green famine*.

The findings of this research have highlighted that the Other Food Security Programme (OFSP) does not achieve its objectives, particularly that of increasing the assets of vulnerable households, for the study population. The programme's effects are hampered by various administrative and other related factors in the study area, the most important of which are the small size of livelihood packages, the small number of beneficiaries targeted and the inappropriateness of packages for the livelihood zone.

The findings show how the growing and deepening livelihood crises have pushed households to diversify within and beyond agricultural production, with migration coming to the fore as an important response. Internal migration to larger urban centres in Ethiopia as well as migration overseas to South Africa (mostly by young male household members), the Middle East and the Gulf States (preferred by young women) is rapidly growing. The study results indicated that migration (both types) is playing an important role in strengthening the resilience of livelihood systems for many households in the study area. Thus, the government should consider developing policies that allow and encourage the movement of people to search for employment opportunities outside their region and country and should provide proper protection.

The findings highlight some critical areas for policy reviews. The Ethiopian government should address challenges facing poor and vulnerable households in accessing agricultural inputs through the provision of subsidies, offering certain insurance/guarantee systems to poor and vulnerable households. Further, the agricultural extension service should include enset and other root and tuber crops in its package, for the promotion of and support to improved local agriculture production. The government should promote different non-agricultural livelihoods and allow free movement of people to different parts of the country when seeking labour and employment.

8.2 The contribution of the study to understanding the causes of famine in Ethiopia, knowledge and theories of famine and famine measurements

This research has unpacked the underlying causes of food insecurity and *green famine* in southern Ethiopia. The findings highlight that the enset-based livelihood system is severely strained and

rapidly deteriorating. Although livelihoods in K-T had deteriorated over a long period of time, the extent of vulnerability only became widely evident during the first *green famine* in 2000 and later in 2003. However, in spite of plentiful evidence that the situation, particularly the 2007–08 *green famine*, was severe enough to be considered a minor famine, the situation was regarded as only a localised food crisis (likened with ‘pre-famine’ conditions) and, thus, responses were muted. This study has identified the existing gap in vulnerability and famine studies in Ethiopia, particularly in enset-dominant livelihood zones, and hence has attempted to raise the profile and understanding of *green famine* and indicate further directions for research and policy. By applying a holistic livelihood vulnerability lens, this research contributes to an overall understanding of the causes of food insecurity and famine in Ethiopia, which is mainly focused on one aspect of entitlements (production-based entitlements) at the household level. This research contributes important new insights to understanding the dynamics of famine and vulnerability in the SNNP region, where future emergencies are more likely, given existing trends of worsening vulnerability.

This study contributes towards famine theory by identifying multiple causes of contemporary famines. By using Sen’s analytical framework of ‘entitlement to food’ this study identified how the failure of different sets of entitlements of people caused a *green famine*. Further, the study identified how various policy-induced shocks (inappropriate and poorly implemented policies) and response failures have played a role in increasing households’ vulnerability to food insecurity and famine.

As another important contribution to the field of famine concepts, measurements and classification, the study raises the issue of subjective indicators in understanding, defining and measuring famine. Subjective indicators such as the perceptions and experience of affected people and communities and their various coping strategies are essential for revealing the intensity and magnitude of a famine situation. This study demonstrates that inclusion of these indicators will improve the early detection and therefore prevention of large-scale suffering due to occurrence of famine. As the findings of this study indicate, households do not resort to irreversible and socially unacceptable coping strategies unless the severity of the prevailing food crisis and famine is beyond their individual capacity and the informal community support system. The limitation of existing responses to famine is that humanitarian support only kicks in after certain thresholds (defined by various anthropometric and nutrition indicators) are reached; yet

many households falling into famine will have already depleted their assets by this point, and informal social support will often no longer be available. The strength of the Handino scale is that it gives due importance to the views and perceptions of the famine victims and the types of locally defined coping strategies alongside anthropometric measurements and cut-offs. The use of local perceptions in famine early warning systems (as proposed in the Handino famine scale) would imply that a situation could be classified as a famine earlier and thus open the gates to emergency support sooner than might otherwise be the case. This would necessarily help to prevent needless suffering as well as further asset depletion. In other words, unlike the IPC and Howe and Devereux famine intensity scales, the Handino scale is a more famine-prevention-oriented tool that helps in identification and classification of famine situation.

8.3 Implications for future research

This study has identified the livelihood strategies, sources of vulnerability and current state of food security and livelihoods in three districts in southern Ethiopia. Recently, the Food Economy Group has undertaken large-scale livelihood studies in different parts of Ethiopia dividing the country into 175 livelihood zones by applying the household economy approach. These studies, however, focus more on food production and availability aspects of food security with little or no research on scrutinising how government policies are affecting the livelihood situations. Thus, future research needs to look at the vulnerability and the current state of food insecurity of the wider enset-based livelihood zones across the country. Undertaking such a large-scale vulnerability study to identify different types of livelihood strategies and sources of livelihood vulnerability would paint a clearer picture of the current food security and livelihood situation and could help avoid further *green famines*.

Despite the considerable progress made, the threat of food crises and famines remains eminent in Africa. Devereux (1993a), de Waal (1989) and others argued that response and accountability failure is a main cause of contemporary famines in Africa. Edkins (2007: 61) echoed similar views on how response failure is playing a role in famine causation, saying 'If [famines] are not produced deliberately, then they are often allowed to progress beyond the stage of "famishment" to "morbidity", through deliberate or negligent inaction on the part of those who could intervene to save lives and livelihoods'. A future study should look into how the operational aspect of the

Handino famine scale with reduced thresholds and strong emphasis on subjective indicators of famine can inform contingency planning and preparedness to improve early response to avoid famine progress and livelihood deterioration.

Future studies should look into how the Handino famine scale can be field tested and integrated with other subjective food security indicators such as reduced coping strategies index (rCSI) advanced by Maxwell *et al.* (2008) to establish and define more nuanced famine indexes that are applicable across different contexts.

This study has revealed the significance of informal social support systems in famine situations and how famine affects larger segments of populations once the system breaks down. In order to sustain an informal social support system, future studies could look into whether food insecurity and famine interventions should also focus on the provision of some forms of *entitlements promotion* supports to the middle-level wealth categories, while providing *entitlement protection* supports to the poor and destitute groups.

This study was initiated based on my personal and professional curiosity to understand why the enset dominant livelihood zone is becoming more vulnerable to food insecurity and *green famine*. I was fortunate to be born in the Kambata highlands where for many, hunger and famine was not a daily reality at that time. However, over the last two decades, the state of livelihood and food security of the Kambata highlands has changed. As one of my key informants during the fieldwork had succinctly put it 'It is green from outside but there is trouble inside'. This area, once considered as food secure and less affected by famines ravaging other parts of the country, has become vulnerable to food insecurity and *green famine*. Why are these local livelihoods becoming more vulnerable and what are the underlying causes of *green famine*? These are the questions I have attempted to find an answer to in this study. Unless the prevailing livelihood vulnerability factors are properly addressed through livelihood specific policies and interventions, the livelihoods will continue to deteriorate and food insecurity and wider scale *green famine* will occur and reoccur. During my fieldwork, I have also witnessed some positive developments, as some of the government policies such as the safety net programme are playing a protective role, preventing vulnerable households from sliding further into destitution.

I hope the research on *green famine* will not end after the completion of my study. I hope by raising the profile and understanding of *green famine* and identifying its causes, I have paved a way for future policies and research to prevent the occurrence of food insecurity and *green famine* in the study area and other enset dominant parts of Ethiopia.

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Appendix 1: Fieldwork instruments

CHECKLIST FOR FOCUS GROUP DISCUSSIONS AND PRA EXERCISES WITH DIFFERENT COMMUNITY GROUPS

Timeline and Chronologies

1. What are the main events happened that positively or negatively affected livelihoods of the people in the history of this *kebele*/area since 2001?

Wealth ranking and livelihood activities of different wealth groups

1. What are the main wealth groups in this *kebele*/area currently? (Use local names for these groups e.g. Rich (*Duubala\qabaxxammu*), middle (*Mererancho*), poor (*buxxichu*), and destitute (*wienna buxxichu*).
2. What were the main wealth groups in this area five years ago?
3. What were the main wealth groups in this area ten years ago?
4. Why there are more rich/middle/poor/destitute groups during these three periods of time?
5. What are the social and economic criteria for wealth differences in this area?
6. What are the major livelihood activities for each wealth group? (List only the top 2 or 3)
7. What proportion of the community belongs to each group?
8. How many months a year does each group have a food shortage?
9. Have there been any changes in social and economic characteristics for each of the wealth groups since 2007/08?
10. If yes, please explain why?

Trends in livelihoods and vulnerability

1. What are the main types of shocks affecting the livelihoods of people in this *Kebele*?
2. Please rank the three main shocks affecting households in this area.
3. How does the trend of these shocks look like?
4. Increasing, decreasing, no change?
5. Please also explain if these shocks are policy related, political, economic or natural
6. What changes were there since 2007/08 in what people are doing to make their living?

7. Why have there been changes? What factors have caused people's livelihoods to change? (Natural, historical, political, others please explain). (Ask the participants to rank factors that caused changes in livelihood in order of importance)
8. What sorts of households are the most vulnerable to food shortages and why? (Rank them in order of importance)
9. Which households emerged as winners against shocks and risks that faced the community and why? (Rank in order of importance)
10. Overall, do you think the livelihoods in this area are becoming more or less vulnerable to hunger and periodic famines, or is there no change over time?
11. If vulnerability is changing, why?
12. Do you know anyone in the community who had been in Oromia and Sidama areas for long times, but has returned to this community after the fall of the *Derg* regime?
13. If yes, where are they?
14. Who provided them land upon return?
15. What is your opinion on ethnic based regionalism and its impact on free movement of people in search of wage labor opportunities?

Community consultation on the underlying causes of *green famine*

1. What is hunger? What is its name in local language (*Kambatissa*)?
2. What is famine? What is its name in local language?
3. What do you recall about the food crisis that affected this community in the past 15 years?
4. Recall the years in your lifetime that this community was affected by famine? What do you recall about those years?
5. What is your understanding about *green famine*?
6. Is there any local name given to *green famine*? If yes, what does it mean and please elaborate!
7. What are the characteristics of *green famine*?
8. What are the similarities and differences between famine of 1984 (*ye seba sebat dirq*) and *green famine*? Would you name the latter a famine? If not, why?
9. What is your perception about the causes of *green famine*?
10. Do you think drought is the main cause of *green famine*? Please elaborate.
11. What are the trigger factors of *green famine*?
12. What is the overall impact of *green famine* on the livelihoods of people?

13. Who were the livelihood groups most affected by the *green famine*? (Rank by livelihood group) Why?
14. What are the ways people cope with food shortages in this community?
15. What unusual coping strategies households in this community adopted to get through the impacts of *green famine*?
16. What are the factors contributed to the change of the coping strategies over times?
17. What is the impact of adopting these unusual coping strategies on the livelihoods of people?
18. Were there any unusual mortality and morbidity in the community during the *green famine* time? If yes, how many people died in this community?
19. Which age group was the most affected (children, elderly, pregnant women, others)?
20. What were their causes of death (starvation, disease, others)?
21. Has it been reported to the *Woreda* offices and received response? If yes, was it adequate and timely response?
22. Do you think is it conceivable to experience another *green famine* in this area in the future? If yes, what is your argument? If not, why do you think it will happen again?

Community perceptions on agricultural production

1. What is the most valuable crop in your farm currently and before *green famine*? Why?
2. Does the importance of these crops have changed over time? Why?
3. Compare with reference year, would you say that the total production of your:

Type of crop	Area coverage in <i>timad</i>	Increasing	Decreasing	Staying the same	Why
Cereals					
Perennial crops (Coffee fruits)					
Enset(false banana)					
Vegetables					
Eucalyptus					
Pasture					
Spices					
Others					

Informal social supports system

1. Please indicate the type informal social support systems that exist in the community to help you to overcome shocks and household food shortages?

Type of social support system	Reference year	During the <i>green famine</i> (2007/08)	Currently
Iddire			
Serra			
Gezzima			
Goggotta			

2. How have these types of informal social support systems changed from the past?
3. What are the factors contributed to the change of the coping strategies over times?
4. What was the impact of *green famine* on the informal social networks and community solidarity?

Government's food security policy and its effectiveness

1. What supports did you receive through the regular agricultural extension service?
2. Do you think chronically food insecure and destitute households are benefiting from the agricultural extension package service in this area? If not, why not?
3. Is the extension package is tailored to your needs and livelihood system?
4. If not, please explain
5. What is the impact of the extension service program in reducing further food shortage and hunger in your family?
6. What are the main challenges you face in accessing agricultural inputs such as fertilizers and improved seeds? Who is the supplier of the agricultural inputs?
7. What is your perception about the ongoing food security programs (AESP, PSNP, OFSP) in addressing livelihood vulnerability and seasonal hunger?

CHECKLIST OF INTERVIEWS WITH THE DEVELOPMENT AGENTS (DAS)

Sources of livelihood vulnerability

1. What are the main types of shocks affecting the livelihoods of people in this *Kebele*?
2. Please rank the three main shocks affecting households in this area.
3. How does the trend of these shocks look like?
4. Increasing, decreasing, no change?
5. Please also explain if these shocks are policy related, economic, political or natural
6. Which livelihoods are the most vulnerable to these shocks?
7. Why are these livelihoods more vulnerable?
8. Which livelihoods are adapting the shocks well and are resilient?
9. Why are these livelihoods adapting well?

Government food security policies and their effectiveness

1. What livelihood packages did you deliver for households?
2. What agricultural extension services are available in this *kebele*?
3. What role do you think the agricultural extension package program played for vulnerable households' food security?
4. Do you think the ongoing agricultural extension service program that comprise various package sis tailored to the need and interest of vulnerable and chronically food insecure households in this *Kebele*?
5. If not, what additional packages would help to support the household food security?
6. What are the main challenges you are facing in delivering the package program?
7. How well are the farmers in this *Kebele* adopting the inputs particularly improved seeds and fertilizers? If the trend is changed, what are the reasons?
8. What are the main challenges you are facing in implementing PSNP?
9. What is the impact of the PSNP thus far in addressing the livelihood vulnerability and ensuring the wellbeing of vulnerable households in this *Kebele*?

Green famine

1. What do you recall about the food crisis that affected this community in 2007/08/
2. What is your understanding about hunger?
3. What is your understanding about famine?
4. What do you understand under the term *green famine*?

5. What do you think the underlying causes of *green famine* are?
6. What do you think the trigger factors of *green famine* are?
7. What was the overall impact of *green famine* on various livelihood systems in this district?
8. Was anyone from this district admitted to the emergency feeding centers during the *green famine*? If yes, when and what support did they receive?
9. Were there any deaths during the *green famine*?
10. If yes, please ask and note the following:
 - Sex of the person: _____
 - Age at time of death: _____
 - Cause of death: _____
11. What is your opinion about the current food security responses (PSNP, OFSP and VRP) in addressing the food security situation in this district? Please elaborate in detail
12. Do you think is it conceivable to experience another *green famine* in this area in the future? If yes, what is your argument? If not, why do you think it will happen again?

WOREDA LEVEL KEY INFORMANT INTERVIEWS

Total population of the *Woreda* _____

Male: _____

Female: _____

Returnees: _____

Ex-soldiers: _____

PSNP beneficiaries: _____

Non-PSNP: _____

Others specify: _____

Crop production

1. Request the district office of Agriculture and Rural Development (BOARD) about the crop production data for the last 10 years, for the main crops in the *Woreda*. Fill the following table for yields of various crops.
2. In the year xxx, why there was an overall crop production increased/decreased in the region?
3. What were the reasons that caused?

Food aid distribution

1. Gather information on the quantities and distribution of food aid (through Government and NGOs/WFP) by year for the last 10 years for the divisions within the District.
2. In the year xxx, why there was a large increase in food aid?
3. What are the reasons and what caused the crisis?
4. In the year xxx, why the food aid need was very small compared to others?
5. Please elaborate the reasons?

Sources of livelihood vulnerability

1. What are the main types of shocks affecting the livelihoods of people in this district?
2. Please rank the three main shocks affecting households in this area.
3. How does the trend of these shocks look like?
4. Increasing, decreasing, no change?
5. Please also explain if these shocks are policy related, economic, political or natural
6. Which livelihoods are the most vulnerable to these shocks?
7. Why are these livelihoods more vulnerable?
8. Which livelihoods are adapting the shocks well and are resilient?
9. Why are these livelihoods adapting well?

Government food security policies and their effectiveness

1. What livelihood packages did you deliver to the communities?
2. What agricultural extension services are available in this district?
3. What role do you think the agricultural extension package program played for vulnerable households' food security?
4. What are the impacts of the food security policy responses (AESP, PSNP, OFSP) in addressing the livelihood vulnerability and ensuring wellbeing of people in this district?
5. What are the main challenges you faced in delivering the PSNP in this district?
6. What are the main challenges you faced in delivering the regular extension package (particularly seeds and fertilizers) to households?

Green famine

1. Can you tell me how many times have communities been hit hard by hunger in this district in the last 15 years?
2. What do you recall about the food crisis that affected this community in 2007/09?
3. Was it the first time this district faced a food crisis of that magnitude?
4. What do you understand under the term *green famine*?
5. Would you name it a famine? If not, why not?
6. What do you think the underlying causes of *green famine* are?
7. Do you think a drought is responsible for it or there were other factors? Please explain
8. What are the similarities and differences between famine of 1984 (*ye seba sebat dirq*) and *green famine*?
9. What do you think the trigger factors of *green famine* are?
10. What was the overall impact of green famine on various livelihood systems in this district?
11. Was anyone from this district admitted to the emergency feeding centers during the *green famine*?
12. If yes, when and what support did they receive?
13. Were there any deaths during the *green famine*?
14. If yes, please ask and note the following:
 - Sex of the person: _____
 - Age at time of death: _____
 - Cause of death: _____
15. Has it been reported to the zonal or regional level Government offices?
16. If yes, did you receive adequate and timely response?
17. In your opinion, is it conceivable to have such a food crisis in the future in this area?
18. If yes, why? If not, why not?

**REGIONAL LEVEL INTERVIEWS (BoARD, DPPA, SARI, FOOD SECURITY AND EARLY WARNING
COORDINATION OFFICE, BoFED)**

Total population of the Region: _____

Male: _____

Female: _____

PSNP beneficiaries: _____

Non-PSNP: _____

Others specify: _____

1. Request the regional bureau of agriculture and rural development (BoARD) about crop production data for the last 10 years, for the main crops in the region.
2. In the year xxx, why there was an overall crop production increased/decreased in the region?
Please elaborate

Food aid distribution

1. Gather information from the bureau of the regional Disaster Prevention and Preparedness Agency or Food Security and Early Warning Coordination Bureau on the quantities and distribution of food aid (through Government and NGOs/WFP) by year for the last 10 years.
2. In the year xxx, why there was a large increase in food aid need?
3. What are the reasons and what caused the crisis?
4. In the year xxx, why the food aid need was very small compared to other years?
5. Please elaborate the reasons?
6. What are the main types of shocks affecting the livelihoods of people in this region?
7. Please rank the three main shocks affecting households in this region.
8. How does the trend of these shocks look like?
9. Increasing, decreasing, no change?
10. Please also explain if these shocks are policy related, economic or natural
11. Who are the districts chronically vulnerable to shocks and hunger? Why these districts are more vulnerable than others?
12. What are the impacts of the food security policy responses (AESP, PSNP, OFSP) in addressing the livelihood vulnerability and ensuring wellbeing of people in this region?

Government food security policies and their effectiveness (SARI)

1. What is the role of non-cereal crops in attaining household food security in the region? Please elaborate.
2. What is the policy and research direction towards promoting non-cereal food crops in the region?

3. What are the main challenges faced by the enset production in this region?
4. Compared to the last 10 years, how is the total production of enset in the region? Is it increasing, decreasing or without change?
5. If increasing, what are the reasons?
6. If decreasing, what are the reasons?
7. What specific research and policy support is provided to promote enset crop in this region?
8. How effective is the policy and research support provided towards enset crop?

Hunger and Famine

1. What is your understanding of hunger?
2. What is your understanding of famine?
3. When do you categorize and label a food crisis as a famine? Please elaborate in detail
4. What do you recall about the food crisis that affected Ethiopia in general and the Southern part of Ethiopia in particular in 2007/08?
5. What do you know about the term *green famine* in SNNPR? Can you elaborate?
6. Would you name this a famine? If not, why?
7. Is it the first time this part of the country has experienced a famine of that magnitude after 1984? Have there been other times *a green famine* happened after 2007/08?
8. If yes, when was it?
9. What do you think the underlying causes of *green famine* are?
10. Do you think a drought is responsible for it or there were other factors?
11. Please explain
12. What do you think of the trigger factors of *green famine* are?
13. Were there any deaths during the *green famine*?
14. If yes, do you have a report on sex, Age and causes of the death and can you share it?
15. Has it been reported to the UN and donor countries for an intervention?
19. In your opinion, is it conceivable to have *green famine* in the future in this region? If yes, why? If not, why not?

Green famine and early warning system

1. Can you explain about how the early warning information system functions in this region?

2. What early warning information is collected from the *Woreda* and *kebele* levels to detect impending crisis? Who collects the information?
3. How often is the early warning information collected?
4. Is the information livelihood based?
5. If the early warning information system is in place, why did it fail to capture the crisis of the *green famine* on time?
6. What were the gaps in the early warning information system?
7. How was the response from the Federal Government and humanitarian agencies towards the *green famine*?
8. Was it timely and adequate? If not, please explain
9. What additional resources would you need to establish a well-coordinated and proactive early warning system in the region and districts?

FEDERAL LEVEL KEY INFORMANT INTERVIEWS

Food insecurity, hunger and famine

1. What is your understanding of Hunger?
2. What is your understanding of famine?
3. When do you categorize and label a food crisis as a famine? Please elaborate in detail
4. Can you recall the times that Ethiopia experienced a famine in the past 15 years?
5. What do you recall about the food crisis that affected Ethiopia in general and the Southern part of Ethiopia in particular in 2007/08?
6. What do you know about the term *green famine* in SNNPR? Can you elaborate?
7. Would you name this a famine? If not, why?
8. Is it the first time this part of the country has experienced a famine of that magnitude after 1984?
9. Have there been other times *a green famine* happened after 2007/08?
10. If yes, when was it?
11. What do you think the underlying causes of *green famine* are?
12. Do you think a drought is responsible for it or there were other factors?
13. Please explain
14. What do you think of the trigger factors of *green famine* are?

15. Were there any deaths during the *green famine*?
16. If yes, do you have a report on sex, Age and causes of the death and can you share it?
17. Has it been reported to the UN and donor countries for an intervention?
18. If yes, did you receive adequate and timely response?
19. What is your opinion about the ongoing food security responses (PSNP, OFSP and VRP) in addressing the food crisis in this part of the country? Please elaborate in detail
20. In your opinion, is it conceivable to have such a magnitude of food crisis in the future in Ethiopia in general and the Southern Ethiopia highlands in particular?
21. If yes, what are the reasons and gaps? If not, why not?

Food aid

1. Gather information on the quantities and distribution of food aid (through the Government, NGOs and WFP) by year for the last 10 years.
2. In the year xxx, why there was a large increase in food aid?
3. What are the reasons and what caused the crisis?
4. Was the response of food aid for the crisis adequate and timely? If not, please explain and what was the gap?
5. In the year xxx, why the food aid need was very small compared to other years? Please elaborate the reasons?

Early warning system and *green famine*

1. Can you explain the structure of the early warning system and how it functions?
2. What early warning information is collected from the regional, *Woreda* and *kebele* levels to detect the impending crisis?
3. Who collects the early warning information?
4. Do the formal early warning systems include the informal community response mechanisms?
5. How often do you receive early warning information from the regional level?
6. What do you do with the information you have received from the regions?
7. Is the information livelihood based?
8. If the early warning information system was in place, why did it fail to capture the crisis of *green famine* on time?
9. What are the gaps in early warning information system?

Food security policies and their effectiveness

1. What are the current food security and rural development policies in Ethiopia?
2. What is the role of the agricultural extension system in supporting the food security efforts?
3. What packages are available for households and what is the rationale of focusing on these packages?
4. In your opinion, are these packages specific and tailored to the diverse livelihood system of Ethiopia? If not, why?
5. What are the opportunities and challenges of the agriculture sector in ensuring the food security in Ethiopia?
6. What are the impacts of the PSNP in the livelihoods of people?
7. Looking back the last five years, do you think the PSNP has achieved its objectives?
8. If not, what challenges were faced and what measures are planned to be undertaken to improve this for next phase?
9. Do you think the livelihoods in the southern Ethiopia highlands particularly in enset farming system are becoming more or less vulnerable to hunger and periodic famines, or is there no change over time?
10. If vulnerability is changing, why and what are the contributing factors to the livelihoods vulnerability?

KEY INFORMANT INTERVIEW WITH ACADEMIA AT THE ADDIS ABABA UNIVERSITY, FORUM FOR SOCIAL STUDIES, HAWASSA UNIVERSITY AND OTHER FAMINE AND POLICY EXPERTS

Sources of livelihood vulnerability in enset farming systems in Southern Ethiopia

1. Do you think the livelihoods in the Southern Ethiopia highlands particularly in enset farming system are becoming more or less vulnerable to hunger and periodic famines, or is there no change over time?
2. If vulnerability is changing, why and what are the contributing factors to the livelihoods vulnerability?

Food security policies and their effectiveness

1. What do you think about the current rural development and food security policies and strategies of Ethiopia in addressing food insecurity?
2. Do you think the current food security policies (extension package, PSNP, resettlement) are adequately addressing vulnerability and food insecurity in Ethiopia?
3. If not, please elaborate
4. Do you think the current agricultural extension service program that comprises various packages has at all contributed to ensuring household food security?
5. If not, please elaborate
6. What are the opportunities and challenges of the agriculture sector in ensuring the food security in Ethiopia?
7. What do you think is the role of the PSNP and OFSP in addressing livelihood vulnerability?
8. What are the visible impacts of the PSNP and OFSP in minimizing livelihood vulnerability?
9. What more should be done to address the current and emerging food crisis in SNNPR?

Food insecurity, hunger and *Green famine*

1. What is your understanding of hunger?
2. What is your understanding of famine?
3. When do you categorize and label a food crisis to famine? Please elaborate in detail
4. Can you recall the times that Ethiopia experienced famine in the past 15 years?
5. What do you recall about the food crisis that affected Ethiopia in general and the Southern part of Ethiopia in particular in 2003 and later in 2007 and 2008?
6. What do you know about the term a *green famine* in SNNPR? Can you elaborate?
7. When and from where did you hear about it?
8. If you have heard, what do you think are the underlying causes of a *green famine*?
9. What do you think trigger factors of a *green famine*?
10. What are the difference and similarities between the 1984 and the *green famine*?
11. Would you name the latter a famine? If not, why?
12. Have you heard any reports that indicate deaths related to *green famine*?
13. If yes, can you recall the numbers?
14. In your opinion, is it conceivable to have such a food crisis in the future in this region?
15. If yes, why? If not, why not?

16. What should be done to avert such type of food crises and famine in the future?

KEY INFORMANT INTERVIEW WITH THE DONOR GROUP AND INGO REPRESENTATIVES

1. In what development support are you involved in Ethiopia?
2. Do you think the livelihoods in the Southern Ethiopia highlands particularly in enset farming system are becoming more or less vulnerable to hunger and periodic famines, or is there no change over time?
3. If vulnerability is changing, why and what are the contributing factors to the livelihoods vulnerability?

Food security policies and their effectiveness

1. Do you think the current food security policies (AESP, PSNP, OFSP) adequately address vulnerability and food insecurity in Ethiopia in general and Southern highlands in particular?
2. If not, please elaborate
3. What are the opportunities and challenges of the agriculture sector in ensuring the food security in Ethiopia?
4. What do you think is the role of the PSNP in addressing livelihood vulnerability?
5. What are the main challenges faced by the PSNP implementation?
6. What more should be done to address the food crisis in SNNPR and other regions?

Food insecurity, hunger and *Green famine*

1. What is your understanding of hunger?
2. What is your understanding of famine?
3. When do you categorize and label a food crisis to famine? Please elaborate in detail
4. Can you recall the times that Ethiopia experienced famine in the past 15 years?
5. What do you recall about the food crisis that affected Ethiopia in general and the Southern part of Ethiopia in particular in 2007/08?
6. Have you heard about *green famine*? If yes, when and from where did you hear about it?
7. Would you name it a famine? If not, why?
8. What do you think of underlying causes of a *green famine* are?
9. What do you think trigger factors of a *green famine*?
10. Have you heard any reports that indicate deaths related to *green famine*?

11. If yes, can you recall the numbers?
12. In your opinion, is it conceivable to have such a food crisis in the future in this region?
13. If yes, why If not, why not?
14. What should be done to avert such type of food crises and famine in the future?

INTERVIEW GUIDE FOR CASE HOUSEHOLDS

Households Profile for the in-depth case study includes:

- Households who have benefited from the ongoing food security interventions and graduated from the PSNP
- Households who have successfully overcome shocks and have built resilient livelihood system
- Households who have been settled in other parts of the country for long times but have returned to their original place after the introduction of ethnic federalism
- Migrant households who normally spend some times of the year in far places in seeking seasonal jobs
- Households who have a family member migrated to South Africa or other countries and benefiting through the remittance
- Cereal based farming households and enset based farming households
- Households that are traditionally considered as “low caste” (such as *fuuga* and others)
- Households that were severely affected by the *green famine* in 2007/08
- Households that were not affected by the *green famine* in 2007/08

Household profile

Household status (PSNP beneficiary, non-beneficiary, returnee....)	Date of interview:	Start time:
End time:	Name of head of HH:	Sex:
Marital status:	# of HH members (# of people living under one roof):	Education level:
# of HH participants during the interview M_____F____/	District:	Kebele/Village:
Primary livelihood activities:	Supporting livelihood activities:	Others...

Age structure of the household

Age Group	Male	Female	Total	Occupation
0-5				
6-15				
16-25				
25-45				
46-60				
≥65				

Land size

1. How many *timad* of land does your household own? _____
2. How many *timad* of land does your household rent –in from someone else for your own production?
3. How many *timad* of land does your household rent-out to someone?
4. How many *timad* of land does your household given-out to your son/close relatives during the last five years?
5. How many *timad* of land does your household sharecrop on someone's land?
6. How many *timad* of land does your household sharecropped-out to someone?
7. Has there been a change in total land size between before *green famine* and now?
8. If increasing/decreasing please explain the reasons in details

Land use pattern

1. What is the most valuable crop in your farm currently and before *green famine* and why?
2. Compare with reference year, would you say that the total production of your:

Type of crop	Area coverage in <i>timad</i>	Increasing	Decreasing	Staying the same	Why
Cereals					
Perennial crops (Coffee and fruit trees)					
Enset (false banana)					
Vegetables					
Eucalyptus					
Pasture					
Spices					
Others					

Livestock ownership

1. How many livestock do you possess? Please indicate the total number of each livestock type currently owned (today), during reference year, during the *green famine* time, *pre-green famine*) by the household.

Type of livestock	Currently	Xxxx(reference year	2007/08	Before 2007/08
Oxen				
Cow				
Bull				
Heifer				
Calves				
Shoats				
Horse				
Mule				
Donkey				
Chickens				
Others				

2. What are the reasons for change in number of livestock owned?

Sources of food

1. What are the various food sources your household relies on?

2. In the last year, what percentage (%) of your household's diet comes from the following sources? (NB: Use beans for proportional piling).

Food Source	Contribution to HH Diet (%)
Own crop (cereals, Irish potato, sweet potato....)	%
Own crop (enset and enset products)	%
Animal products	%
Food purchased from market	%
Labor exchange (Paid in food and cash)	%
Wild food gathered	%
Gift / family support (Do not have to pay back)	%
Food loan (Must pay back)	%
PSNP transfer	%
Other (please specify)	%
Total (must add up to 100%)	100%

Vulnerability and resilience

1. What are the main sources of vulnerability for your livelihood currently? Please rank the three main shocks affecting your livelihood?
2. How does the trend of these shocks look like?
3. Increasing, decreasing, no change?
4. Please also explain if these shocks are policy related, economic or natural

Labor, Seasonal migration and Household food Security

1. What off-farm employment opportunities do exist in this area?
2. When (season) do you go out in seeking off-farm job opportunities?
3. Where do you go to find casual work?
4. Have you ever gone far places (government plantations, private farms in other regions) in seeking casual work?
5. If yes, where and when? And for how long?
6. Can you explain the contribution of such movements for your household food security?
7. Have there been any changes in out-migration during the off-season to state plantations or others parts of the country in the last 10 years?
8. If yes, what has changed and how have these changes affected your food security situation?
9. Are you still going other places in looking for off-farm jobs?

10. If yes, where? If not, why did you stop?
11. What is the impact of the introduction of 'ethnic regionalism' on your mobility?
12. What is your opinion on the migration of youth to South Africa and other places?
13. Do you have a family member who has migrated to South Africa or other places abroad and if yes, can you explain about the migration process and its benefits or negative impacts on your livelihood condition.

Green famine

1. What is hunger? What is the local name for hunger?
2. What is famine? What is the local name for famine?
3. When did you /your family experience famine for the first time? Please explain
4. What do you recall about the food crisis that affected this community in 2007/08?
5. Could you say it was a famine? If yes why and if not why not?
6. What do you understand under the term *green famine*?
7. What are the characteristics of *green famine*?
8. What are the similarities and differences between famine of 1984 (*ye seba sebat dirq*) and *green famine*?
9. What do you think are the underlying causes of *green famine*?
10. Do you think drought is the main cause of the *green famine*? If yes, please explain.
11. How did you survive during the *green famine* period?
12. What is the difference between the coping strategies you adopted during the *green famine* time and other years? Please list the types of coping strategies separately.
13. What are the factors contributed to the change of the coping strategies over times?
14. What was the overall impact of *green famine* on your livelihood system?
15. Was anyone from your household admitted to the emergency feeding center?
16. If yes, what support did he/she receive?
17. Were there any deaths among household members during the *green famine*?
18. If yes, please ask and note the following:
 - Sex of the person
 - Age at time of death
 - Cause of death
19. Has it been reported to the *Kebele/Woreda* level Government offices?

20. Did you receive any support from the Government during the *green famine*?
21. If yes, do you think the response was timely and adequate in addressing the crisis you faced? If not, please explain
22. Did you receive any support from INGOs and local organizations?
23. If yes, was it timely and adequate in addressing the crisis you faced?
24. If not, please explain the reasons
25. Do you believe *green famine* could happen again? If yes why, if not why not?

Government's food security policy and its effectiveness

1. What supports did you receive through the regular agricultural extension service?
2. Do you think chronically food insecure and destitute households are benefiting from the agricultural extension package service in this area?
3. What household package did you receive in the last five years?
4. Is the extension package is tailored to your needs and livelihood system?
5. If not, please explain
6. What is the impact of the extension service program in reducing further food shortage and hunger in your family?
7. Do you think the agricultural extension service contributed to address livelihood shocks?
8. What role do you think the agricultural extension package program played for your household to recover from a *green famine* effects?
9. Do you have access to credit services? If yes, in what types of income generating activities you or any other member of your households is engaged?
What are the challenges you face in accessing credit services?
10. What are the main challenges you face in accessing agricultural inputs such as fertilizers and improved seeds?
11. Currently, are you using/applying commercial fertilizers (DAP and Urea) for your crop production?
12. If yes, are you using the same amount of fertilizer you have used to ten years ago, five years ago, and two years ago?
13. If not, please explain reasons
14. Are you able to pay back the loans of fertilizers and improved seeds?
15. If not, what are the reasons for defaulting?

16. If you default what would be the consequence?
17. To improve your household food security and address seasonal hunger is it better to grow more food crops or more cash crops?
18. If food crops, what are the most important food crops you would like to grow and why?
19. Are these food crops delivered by the agricultural extension service to you?
20. If cash crops, what are the most important cash crops you would like to grow and why?
21. Are these food crops delivered by the agricultural extension service to you?
22. What is your perception about the ongoing food security programs (AESP, PSNP, OFSP) in addressing livelihood vulnerability and seasonal hunger?

PSNP specific questions

1. Are you a Public Work (PW) or Direct Support (DS) beneficiary?
2. In a normal year, for how many months your household faces food shortages per year?
3. What is the role of the PSNP in your household food security?
4. Since you become a PSNP beneficiary, are you still facing food shortages?
5. If yes, why and for how many months of the year you face?
6. What are the challenges related to the PNSP transfers?
7. Are you still renting out your land? If yes, why
8. Since you become a PSNP beneficiary, are you still doing similar activities to make a living?
9. If no, what and why it has changed?
10. Have you received an OFSP package?
11. Have you used the package to build your household asset? Please elaborate!
12. Are you still in the PSNP or graduated from the program?
13. If yes, do you think you have reached a graduation benchmark set by the Government?
14. If yes, do you think you are in a position to cover the food needs of your households for all year round?

Appendix 2: Codes used for participants' quotes and comments

Administrative level/Institution	Location	Methods	Respondent/participant
Woreda (WO)	<i>Kebele</i> (KB)	Focus Group Discussion/PRA exercises (FGD), Key informant interview (KI), Case Studies (CS)	
Kacha-Bira (KB)	Ashira (AS)	FG	Community Elders-Men (CEM)
	Messafe (MS)	FG	Community Elders-Women (CEW)
		FG CS	Vulnerable Community Group (VCG)
Kadida-Gamela(KG)	Aze-Dobo'o (AD)	FG CS	Resilient Community Group (RCG)
	Teza-Gerba (TG)	KI	Development Agent (DA)
Doyo-Gena (DG)	Wagebeta (WG)	KI	Woreda Food Security and Early Warning Expert (FSEW)
	Dinika (DI)	KI	Woreda Food Security Coordinator/administrator (FSC)
Zone (Z)	Kambata- Tembaro (KT)	KI	Zone Food Security and Early Warning Expert (FSEW)
Region (RG)	Hawassa (HA)	KI	Regional Senior Agronomist (ARD)
			Regional Early Warning and Food Security Expert (FSEW)
			Regional Food Security Coordinator (FSC)
Southern Agricultural Research Institute (SARI)	HA	KI	Regional Agricultural Research Institute Director (DG)
Areka Enset Research Center (ARC)	AR	KI	Senor Enset Researcher (SARI)
Hawassa University	HA	KI	Senior Economist and

(HU)			Development Expert (AC-1)
	HU	KI	Senior Researcher on Rural Development issues (AC-2)
	HU	KI	Senior Rural Development and Agricultural Extension Expert (AC-3)
Federal (FED)	AA	KI	Federal Food Security and Early Warning Team (FSEW)
	AA	KI	Ministry of Agriculture and Rural Development Team
			Livelihoods Integration Unit Team
Addis Ababa University (AAU-IDR)	AA	KI	Senior Researcher (DT)
Forum for Social Studies (FSS)	AA	KI	Senior Researcher (DR)
UN agencies (UN) FAO (UNFAO)	HA	KI	Food security and livelihood expert (FSE)
	AA	KI	Food security and Livelihood expert (FSE)
WFP (UNWFP)	HA	KI	Food security and livelihood expert and program Coordinator at regional sub-office (WFP)
OCHA (UNOCHA)	AA	KI	Program Coordinator (OCHA)
International consultant	UK/Ln	KI	Senior livelihood and food security expert who worked for more than two decades
Senior Food Security and Famine expert	AA	KI	Former UNOCHA emergency coordinator and livelihood expert currently (FSE)

The quotes are used in texts as follows:

A direct quote from the Community Elders–Men focus group discussion/PRA exercise from Kacha-Bira *Woreda*, Ashira *Kebele* on 27 January 2011 is indicated as **(FG_KB/AS-CEM/27/1/2011)**.

A direct quote from the Community Elders–Women focus group discussion/PRA exercise from Kadida-Gamela *Woreda* Aze-Dobo’o *Kebele* on 25 February 2011 is indicated as **(FG_KG/AD-CEW/25/02/2011)**.

A direct quote from key informant interview with the Food Security and Early Warning expert from Kacha-Bira district on 5 January 2011 is referenced as **(KI_KB/WO-FSEW/05/01/2001)**.

A direct quote from Key informant interview with the senior economist and researcher at Hawassa University on 5 May 2011 is referenced as **(KI-HA/HU-AC-1/05/05/2011)**.

A direct quote from key informant interview with an international consultant who worked more than two decades in Ethiopia who is currently based in London, UK, on 25 November 2011 is referenced as **(KI_UK/Ln-25/11/2011)**.

The quotes from the development agents (DAs) do not follow similar tagging format to the above system. In the case of direct quotes from the DAs, the specific *kebeles* are not indicated in the text and referred as study area (SA). For instance a key informant with the DA in one of the study *kebeles* on 15 March 2011 referenced as **(KI_SA/KEB-DA/15/03/2011)**.