Advances in African Economic, Social and Political Development

Lucky Asuelime
Joseph Yaro
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Selected Themes in African Development Studies

Economic Growth, Governance and the Environment

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Chapter 1
Expanding the Frontiers of African Development Studies

Lucky Asuelime, Suzanne Francis, and Joseph Yaro

A growing number of scholars acknowledge the interconnectedness of the myriad of problems and prospects across Africa as a relevant part of global development discourse. Given the ever-increasing importance of knowledge for the scholarly agenda and practice of African Studies, we present a picture of contemporary issues in African development. Although, this volume is focused on development issues, it presents in one volume a multi-disciplinary deeply contextual text on the important themes in development studies covering land questions, housing, water, health, economic liberalization, climate, environment, and gender. Though Africa's problems transcend these basic sector issues, they still remain at the core of development given the fact that many in Africa are food insecure, have poor access to health, water, housing, and are increasingly affected by global environmental change and global neoliberal economic policies. These themes are a microcosm in the general understanding and study of global development issues that confront humanity. This is hoped will lead to novel analytical frameworks, the emergence of new conceptual approaches, and empirical accounts of relevance to scholars studying Africa as well as practitioners in African development and policy makers.

The realities of underdevelopment and development, environmental pressures, policy development and global governance continue to challenge various existing

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theoretical and conceptual approaches in the study of development in Africa. After several decades of scholarly study and development practice in post-colonial Africa, many of the development indicators are still not encouraging even though some countries have made important strides in development policy. The specific country studies in this volume illustrate the diversity of the African continent and demonstrate how unique contexts impact upon different levels of achievement. The global-local interactions defining the landscape of development in Africa are critical in any analysis of contemporary African development and for policy-makers looking to the future. In this book we aim to present deeply contextually grounded studies of contemporary African development to the general discourse broadly construed as African Studies, showing how changes over the past three decades muddy existing theoretical lenses.

The Structure of the Volume

The volume is divided into two parts. In Part I, consisting of four chapters, the authors consider four key development imperatives in Africa—climate, water, land and labour. This is followed by the second part of the volume in which authors provide a consideration of the key developmental challenges faced in one African state—Ghana.

In Chap. 2 of the volume, Hannaford considers *Climate, Causation and Society: Interdisciplinary Perspectives from the Past to the Future*. In this chapter she considers the causal role of climate in human history and assesses the precise role and significance of climate variability on past societies. Previous criticism regarding determinism reflects a general failure to appreciate complex interrelationships, and related research would greatly benefit from the application of the concepts such as vulnerability and resilience. Hannaford claims that climate history offers an analytical framework to incorporate these concepts and clarify the complexities of past climate-society relationships. The focus on climate history is on the premise that it offers various spatial and temporal scales across Africa that can enrich the historiography.

Narsiah and Woldemariam in Chap. 3—*The Poor and Differential Access to Water in Addis Ababa, Ethiopia*—provide empirical data on water services in Addis Ababa, Ethiopia. They show how sectors of the population access water which illuminates the ways in which a section of the poor population is treated differently, which is inherently discriminatory. The claims made by the authors are rooted in the concept of 'dual circuit of supply' and pricing which supports the empirical material of differential access to water of the poor.

In Chap. 4—*Land and Identity in Africa: A Case Study of the Banyamulenge of The Eastern DRC*—Saibel examines the complex identity of the Banyamulenge in South Kivu. She illustrates how the contemporary struggle of the group has to be understood in a historical perspective. The (different) historical contexts thus contribute to the identity of the group and consequently "ethnic" leaders have

used history and understandings of traditions to legitimize the group 'essence'. The main argument is that 'collective identity is subject to change, shift and reconfiguration depending on historical events and the political, social and economic context'. Present day usage of the group name is based in the colonial past, or/and, that its usage has continually been politicised by competing interests.

The final chapter in the first part, Chap. 5 by Esther and Shepard—*The Dynamics of the Gendered Division of Labor in Agro Forestry: A case study of Njelele Ward*—introduces a critical gender perspective to development issues in Africa. Esther and Shepard present a discourse is on the uneven distribution of rights, access and positions in the agricultural sector in Zimbabwe. Women play a major role in agricultural production; carrying out most of the work that ensures food security. In this chapter, Esther and Shepard suggest key strategies to redress the gender asymmetries in the agro forestry industry in Njelele and the linkages this might have in the management and development of Agro Forestry in Zimbabwe.

The volume then turns to a consideration of land, housing, environmental change and healthcare in Ghana. In Chap. 6—*Beyond Panaceas in Land Tenure Systems in Ghana: Insights from Resilience and Adaptive Governance of Social-Ecological Systems*—Akamani conceptualizes land tenure as the 'system of formal and informal institutions governing people's relationship with one another and with the land and natural resources on which they depend'. Land tenure systems rely on traditional institutions for managing access to communally owned lands. Using Ghana as a case study, the authors elucidate the challenges associated with tenure security, economic efficiency, and sustainable resource management. This analysis highlights the need to move toward institutional frameworks that can mediate the complex and dynamic relationships between people and land.

Ofosu-Kusi and Danso-Wiredu, in Chap. 7—*Neoliberalism and Housing Provision in Ghana*—examine how externally imposed Structural Adjustment Programmes ensured a corresponding economic liberalization and an antecedent increase in domestic and foreign private investments, especially in the housing industry. The authors argue that this has inadvertently led an overproduction of housing for high-income earners and less attention to the production of housing for low-income earners the capital city Accra.

In Chap. 8—*Environmental Change, Livelihood Diversification and Local Knowledge in North-Eastern Ghana*—Derbile explores the relationships among environmental change, household livelihoods and local knowledge. One of the criticisms of conventional approaches to development and the environment is the over-reliance on experts trained in "western" science. Increasingly, researchers and policy makers are realizing that the integration of different types of knowledge could enhance a better understanding of human-environment interactions and lead to more informed decisions. Within this context, traditional and local knowledge is gaining increasing recognition. The chapter provides useful insights into the role of local knowledge in the diverse responses of communities and households to environmental change in order to secure their livelihoods.

In the final chapter in this volume, Chap. 9—*Contextual Issues in Health Care Financing in Africa: Drawing on the Ghanaian Experience*—Owusu-Sekyere and

Osumanu adopt a historical methodology to highlight healthcare financing policies in Ghana. They claim that the search for appropriate policy for financing healthcare in Africa in general is far from over. This is particularly so in Ghana despite the introduction of a National Health Insurance Scheme.

Part I
Selected Development Issues in African States

Chapter 2
Climate, Causation and Society: Interdisciplinary Perspectives from the Past to the Future

Matthew Hannaford

Abstract Over the last two decades, the causal role of climate in African history has been the subject of renewed debate. In many cases, however, the limitations of extant methodological approaches have contributed to a tendency to view climate as a monocausal factor in past human events, leading to revived criticism of the concept of climatic causation. Similar claims have also surfaced regarding approaches to evaluating the potential impacts of future climate change, where it has been suggested that the predictive hegemony of modelling has left the future of humankind "reduced to climate", thereby overlooking the human factors that determine the magnitude of its impacts. In the context of urgent present and future African environmental challenges, questions over the concept of causation underline the need for further interdisciplinary research at the climate-society interface. One approach that can contribute to this discourse is assembling well-founded historical perspectives on climate–society interactions through the analytical framework of climate history. Indeed, studying the past is the only way we can examine the effects of and responses to shifts in physical systems. The aim of this paper is to provide an up-to-date starting point for such analyses in an African context. Using selected southern African case studies, previous approaches relating to climate and societal dynamics are first evaluated. Climate history is subsequently posited as a paradigm which is well-placed to deepen knowledge on long-term climate-society interactions, fitting alongside and incorporating key established paradigms such as vulnerability and resilience. Three key areas are highlighted for this challenge: climate reconstruction; understanding past human–climate interaction and vulnerability, and examination of societal resilience to climate change impacts. New research areas are then presented where studying the past can inform consideration of important future challenges, and the paper concludes by calling for the development of African climate histories on various spatial and temporal scales.

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Introduction

The causal role of climate in human history has been a source of long-term debate amongst historians, archaeologists and anthropologists. Over the last two decades, the increasing availability and resolution of palaeoclimate proxy data, offering unprecedented insight into past climates, coupled with concerns over contemporary global climate change, has contributed to resurgence in hypotheses proclaiming the significance of climate in human history (Middleton 2012). The African historiography is no exception to this trend, with some of the most important events in African history being linked to the variability of precipitation in particular (McCann 1999). The absence of coherent methodological approaches for such investigation, however, has promoted renewed criticism. This primarily conforms to suggestions of climate determinism, whereby climate is elevated to the position of a monocausal explanatory factor in past events and the performance of societies. This is conceptually illustrated in the basic input–output model in Fig. 2.1, which depicts climate directly determining societal impacts. Although changes in climate can certainly have significant biophysical consequences, these impacts affect complex socio-ecological systems shaped by the interaction of multiple stressors, as shown in model (c) (Fig. 2.1), meaning human response is strongly non-linear (Endfield 2012). Basing societal impacts primarily on the reconstructed physical aspects of past climate has thus led to misleading conclusions over its human significance (O'Sullivan 2008; Butzer 2012; Livingstone 2012).

Debate over the societal impacts of climate variability is, of course, not confined to the past. Africa is frequently referred to as one of the most vulnerable continents to climate change (Boko et al. 2007). Model outputs project that its warming in this century is very likely to be higher than the global average, with increases in extreme wet and dry seasons projected in most sub-regions (Christensen et al. 2007). While the recent increasing volume and sophistication of model-based climate impact studies has witnessed a significant move beyond the simplistic approach in model (a) in Fig. 2.1, critics argue that our understanding of the causal consequences of climate change for society remains limited (Hulme 2011). Reactions against the dominant methodological discourse have recently emerged, one of which argues that the predictive authority of climate modelling over geography and other environmental and social sciences has left the future of humankind "reduced to climate" (Hulme 2011). Similarly to climate determinism, then, this so-called climate reductionism is suggested to have resulted in an elevated position of climate as a universal predictor and causal variable, and an over-determined future where the biophysical impacts of climate "explain" the performance of future societies.

Owing to the urgency of contemporary environmental challenges and the stated vulnerability of the African continent, the notions of determinism and reductionism across different timescales raise pertinent questions for Africanists working at the climate-society interface. Are past and future views of Africa simply reduced to climate because it is a "known" variable? Are other factors that influence societies disregarded because they are less predictable? Perhaps most importantly, how can

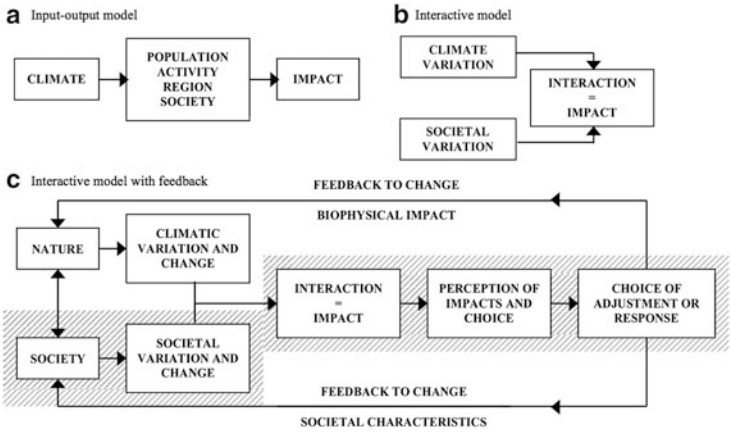

Fig. 2.1 Hierarchy of models of climate-society relationships. *Shading* indicates key research areas relating to societal impacts. Modified after Kates (1985)

geographers, social scientists, historians and others contribute to these discussions alongside model-based descriptions of the future? These are key questions that cut across disciplinary boundaries, and further research on the human aspects of climate change is required to deepen our understanding of these complex interactions (Boko et al. 2007; Hulme 2011). While there exists no universally accepted way of formulating the linkages between human and natural systems, one relatively recent approach that can contribute to this discussion is "climate history" (Ogilvie 2010; Carey 2012). This emergent field seeks to analyse both the past evolution of climate and its relationship with societal dynamics, and is often linked to the wider integrated modelling paradigm relating to historical ecology, vulnerability, and resilience (Holling and Gunderson 2002; Janssen and Ostrom 2006; Crumley 2007). Furthermore, although the combination of contemporary climate change and the rapid post-1950s growth of human societies mean that future impacts are likely to be of unprecedented complexity, examining the past can offer much-needed historical perspectives on linked social and ecological systems (Redman and Kinzig 2003). Indeed, with respect to Africa, the IPCC (Intergovernmental Panel on Climate Change) states that "there are still few detailed and rich compendia of studies on 'human dimensions', interactions, adaptation and climate change (of both a historical context, current, and future-scenarios nature)" (Boko et al. 2007).

This chapter therefore aims to examine approaches and research themes regarding the notion of climatic causation in African history, with the intention of providing a framework and starting point for Africanists researching related themes. Thus, the paper will necessarily be broad in scope. A case study approach is adopted, whereby historical examples from southern African history are first evaluated, with particular focus given to the inherent methodological challenges in linking nature and society. As a result of this critique, climate history is posited as

an interdisciplinary field and methodological framework which can both enrich the historiographical debate and open up long-term perspectives on socio-environmental dynamics of stated importance for the future. The paper culminates in a discussion of the range of sources and methods from various disciplines that are required in order to probe deeper into the human dimensions of climate change and enhance understanding of the continent's future challenges.

Climate Change and Societal Dynamics in the African Historiography

The Holocene, that is, the current geological epoch, holds many case studies where climate change has been posited as the chief causal factor in the rise and fall of settlements, societies and civilisations. Notable African examples include the decline of Rome in North Africa, the collapse of the Mapungubwe state and the rise of the Zulu Kingdom (Fig. 2.2) (see for example Shaw 1981; Holmgren and Öberg 2006; Huffman 2008). Alongside the increase in palaeoclimate data (for instance, tree-rings), McCann (1999) identifies increased environmental consciousness, and the human impacts of the 1968–1972 drought in the Sahel, Ethiopia's twin famines in 1972–1974 and 1984–1986, and the mid-1980s drought in southern Africa as stimulants for this renewed body of scholarship in Africa. Recent focus on past human-climate interaction has therefore shifted from comparatively narrow attention within the disciplines of archaeology, anthropology and environmental history into a matter of relevance for the present and future.

Two main approaches have dominated this African climate-society historiography: the first, and the most common, relates to the direct causal role of rainfall variability in short-term (annual to multi-decadal length) crises or events, often constituting "collapse", whereas the other explores the more fundamental relationships between the environment, climate, and human activity over much longer (centennial) periods (see for example Brooks 1993; Webb 1995; Ekblom 2012). Environmental historian James McCann argues that the former approach has in many cases led to misleading conclusions; while Butzer (2012) notes that the spectre of historical collapse is a red herring. This criticism is largely due to the lack of a coherent methodology for linking climate change to societal events, a persistent problem since Emmanuel Le Roy Ladurie's pioneering *Times of Feast*, *Times of Famine*, and Hubert Lamb's *Climate*, *History and the Modern World*. Moreover, the task of integrating the wide range yet limited quantity of climatic data sources has further contributed to this problem and has often resulted in dismissals of climate determinism. Despite these challenges, the focus on short-term events remains a prominent source of debate, replicated in the southern African region.

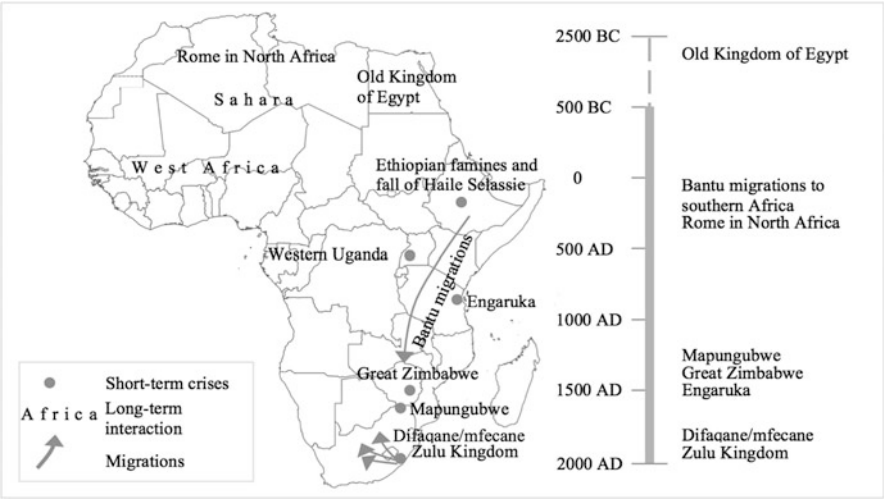

Fig. 2.2 Selected examples of climate-society case studies in the African historiography

Climatic Pathways to State Formation and Decline in Southern African History

The defining moments of the thirteenth century rise and decline of the southern Africa's first state, Mapungubwe, followed by the rise of Great Zimbabwe, and the early-nineteenth century famines, warfare, raiding and migrations of the *difaqane/mfecane* period and the subsequent rise of the Zulu Kingdom have each been causally linked to climate variability (Fig. 2.3). These events constitute regional "turning points" in the pre-colonial period, for which the importance of climate remains disputed. Climate-driven hypotheses mainly stem from the observation that in certain instances of societal change there is a general correlation between human events and the shift from wetter to drier conditions or vice versa (Fig. 2.3) (Pikirayi 2001; Tyson et al. 2002; Holmgren and Öberg 2006). The impacts of such shifts are usually depicted as causal chains, whereby a decline in rainfall, for example, is mediated through its biophysical impacts on vegetation and water resources, with consequent effects on human livelihoods and wellbeing. Climate variability has thus been seen as a factor that would inevitably have impacted the economies of the time due to its role as a limiting factor in food production. Nevertheless, it must be borne in mind that climate was just one of several prominent factors important to pre-colonial societies in the region. These factors are discussed to great extent elsewhere (Eldredge 1992; Beach 1994; Pikirayi 2001; Huffman 2007; Kim and Kusimba 2008), but include economic ties to the Indian Ocean trade at Sofala, wealth in cattle and minerals, the ideology of sacred leadership, coercion, conflict, and colonial interference.

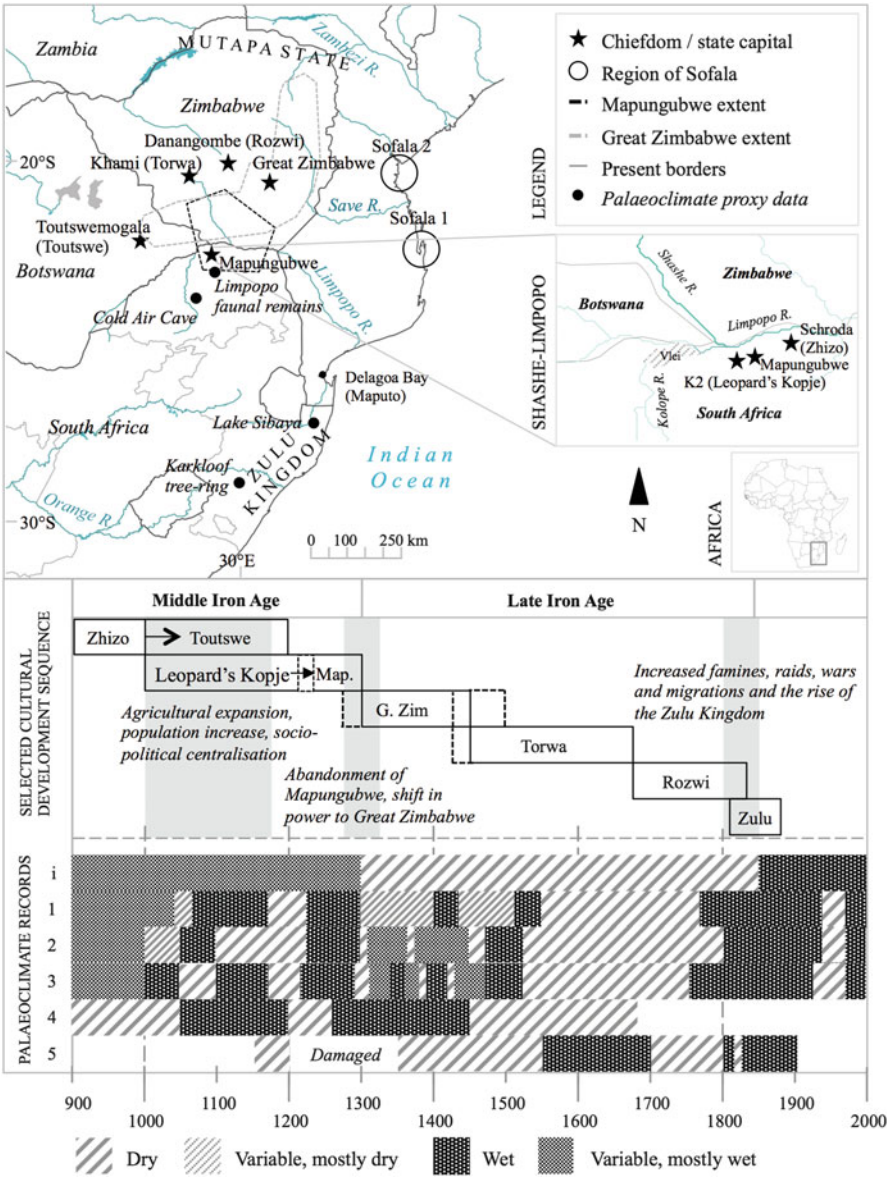

Fig. 2.3 Map of sites mentioned in the text, simplified overview of the Middle-Late Iron Age cultural development sequence, and precipitation variability over the past millennium. Information on approximated pre-colonial state extent from Huffman (2007). Cultural sequence abbreviations: *Map* Mapungubwe, *G. Zim* Great Zimbabwe. Palaeoclimate records: i: regional palaeoclimate review (Tyson and Lindesay 1992), 1: Cold Air Cave T7 stalagmite (Holmgren et al. 1999), 2: Cold Air Cave T7/T8 stalagmites (Holmgren et al. 2003), 3: Lake Sibaya (Stager et al. 2013), 4: Limpopo faunal remains (Smith 2005), 5: Karkloof tree-rings (Hall 1976; Vogel et al. 2001). Palaeoclimate timeline modified after Holmgren et al. (2012)

In the case of the Mapungubwe state, palaeoclimatologists and archaeologists posited that the warmer and wetter conditions associated with the regional manifestation of the Medieval Climate Anomaly, initially believed to be around AD 900–1300, aided agricultural expansion, population growth and the development of societal complexity, sacred leadership and institutionalised rain-control (Huffman 2008, 2009). Contemporaneity with inferred climatic conditions from certain palaeoclimate records, in this case the beginning of the "Little Ice Age" (Fig. 2.3) (Tyson et al. 2002), has also led the later abrupt abandonment of Mapungubwe at around AD 1300 to be linked with climatic factors. According to this hypothesis, the viability of the floodplain of agriculture which supported the growing population at Mapungubwe was the key factor in the causal chain that would have been adversely impacted, thus contributing to societal collapse (O'Connor and Kiker 2004).

The rise and decline of Great Zimbabwe followed between AD1300–1450. In its rise, the spatial variability of climate has been linked to the strengthened economic base of the state due to its location in the zone of higher rainfall along Zimbabwe's south-east escarpment, thus allowing agriculturalists to flourish (Huffman 2007, 2008). Some authors have further claimed that the impact of dry conditions observed in several palaeoclimate records in the mid-fifteenth century undermined the agricultural base of the state, on which its large population was dependent (Holmgren and Öberg 2006). Conversely, Connah (2001) prescribes local population pressures and environmental degradation as chief cause, stating that without fundamental changes in technology and the agricultural system, Great Zimbabwe was "fated to destroy itself". These claims have later been dismissed due to Great Zimbabwe's location in the 'high' rainfall district, on the basis that agriculture here was viable even with a drier climate most of the time (Huffman 2007). Ethnological research, although its applicability is disputed by some (Bonner et al. 2007), has further shown that in the Zimbabwe culture worldview, the sacred leader held accountability for environmental phenomena due to the relationship between leaders, God, ancestors and rainmaking. Drought or climatic drying could have therefore challenged the political status quo (Schoeman 2006; Murimbika 2006). This interrelated debate opens up questions over the role of leadership, elites and ideology, as well as the environment, for vulnerability and resilience to societal breakdown in the Great Zimbabwe region.

Later, at the beginning of the nineteenth century, profound increases in raiding, migrations, warfare and famine were observed on a near-regional scale. This period, albeit the subject of extensive debate (see Hamilton 1995), is referred to as the *difaqane/mfecane*. This had widespread socio-political and cultural consequences southern Africa, including the rise of the Zulu Kingdom, and has likewise been linked to climatic origins (Ballard 1986; Eldredge 1992; Huffman 1996; Vogel et al. 2001). Maize was introduced to KwaZulu-Natal in the early-middle eighteenth century (Maggs 1984), and its cultivation is suggested to have had twofold implications of rapid population growth and increased human vulnerability to drought due to the crop's water-demanding nature. Higher rainfall and warmer conditions following the end of the Little Ice Age (Fig. 2.3) could have played an important role in this

process. However, subsequent severe drought observed in a tree-ring record from KwaZulu-Natal (Hall 1976) at the beginning of the nineteenth century has been linked to a reduced carrying capacity of arable land and pastures, which could have contributed to a marked imbalance between population and resources and the famine, mass-migration and state transformation that followed (Holmgren and Öberg 2006).

In each of these simplified case study overviews, a causal chain of events initiated by a change in rainfall has been posited as a determinant in societal change. Nevertheless, much of the debate surrounding climate and society in pre-colonial southern Africa has not considerably advanced beyond a series of hypotheses based largely on association with wet and dry conditions. Indeed, while some point to climate as an ultimate factor in societal events, others dismiss this as mere background noise. According to Judkins et al. (2008), these contrasting positions are based on the opposing fallacies of climate determinism and climate indeterminism, where the former position has commonly been adopted by geographers, and the latter by historians. Although it is true that societies condition the consequences of climate change through cultural choices, rather than vice versa, this does not mean that climate should be discounted as a potential causal factor (O'Sullivan 2008; Hulme 2011). Such divergent debate therefore marks a need to consider more fully the role of climate and the environment in societal development. Alongside a lack of interdisciplinary research, this stems from three broad restrictions in previous approaches:

- Lack of African palaeoclimate data and ambiguity in its interpretation;
- The isolation of climate impacts in the form of causal chains, resulting in;
- Limited contextualisation of climate variability with other contemporary events.

First, the differing signals of limited palaeoclimatic proxy data has directly contributed to divergent claims and hypotheses regarding the attribution of climatic impacts. For instance, the publication of records (i) and (1) in Fig. 2.3 gave rise to the hypothesis that Mapungubwe was abandoned due to coincidence with the onset of drier conditions in the Little Ice Age. This led some to claim that "the coincidence of the Mapungubwe collapse with the ending of the moist medieval warm period. . . strongly suggests that deteriorating climate was an important contributory factor in the decline of Mapungubwe" (Tyson et al. 2002). Later, however, record (2) gave markedly different indications regarding the onset of the Little Ice Age, leading to differing conclusions on the significance of climate in societal change. This provides a clear example of how the quantitative nature of past climate reconstructions has directly elevated the position of climate as a causal factor due to its status as a "known" variable, in other words, taking results from one context and extrapolating into another.

Although it is tempting to prescribe climatic variability as a chief cause in past events due to a loose correlation between the climatic and cultural records (Fig. 2.3), this can only show coincidence, not causation. Causal links are more complex, and sole consideration of the moisture availability inferences of palaeoclimate can lead to monocausal and misleading conclusions which overlook human capabilities of problem solving (Tainter 2006). While it must be stated that

several studies do consider a wider range of human and physical factors that were important to historical societies (for example Pikirayi 2001, Huffman 2007, 2008, 2009; Manyanga 2007), bold claims that generally reflect the simple cause-effect process depicted in Fig. 2.1 have surfaced without the required full consideration of the socio-economic, political and cultural context for a specific spatial area. This particularly relates to the concept of vulnerability, a key factor in determining the magnitude of climate impacts past, present and future (Pfister 2010; Endfield 2012). Moreover, if we are to avoid narrowed view where climate variability is isolated as a causal factor, the myriad of wider human events and societal forces, for instance, trade and colonial influence in southern Africa, must also be considered through rigorous historical investigation. The highlighted limitations in understanding of climate-society interactions in the past signify the need for an integrated and interdisciplinary framework for which the scope of climate history is well-placed to contribute (Pfister 2010; Carey 2012).

Interdisciplinary Climate History: A Methodological Framework

The integration of historical, archaeological and palaeoenvironmental records is a major task, and requires the incorporation other research areas and methods from disciplines such as environmental science and modelling, political and economic history, anthropology and ethnography. Climate history can form part of a new integrated analytical modelling paradigm required to link these disparate data sources and consequently link human and environmental change. Centred on past African climate change, this field contributes to the call for alternative frameworks by Butzer and Endfield (2012), as opposed to a metanarrative-driven understanding of historical human-environment relationships. Figure 2.4 illustrates how this manifests in the form of a basic interactive conceptual model, showing research areas and their interaction.

This framework is open to multicausality rather than monocausal environmental explanations, and shows that while the environment is certainly important for sustainability, interrelationships are filtered through a web of complex social responses. The following three areas in particular, summarised in Table 2.1, can contribute to historiographical debate, and as is later suggested, contemporary discussions regarding potential future climate change impacts:

1. Reconstruction of past environments and climate;
2. Assessment of the interaction between the environment, climate and society at the scale of peoples, settlements, societies and civilisations;
3. Examination of periods of more abrupt climate and environmental change and its impacts on humans, with appropriate contextualisation against other factors.

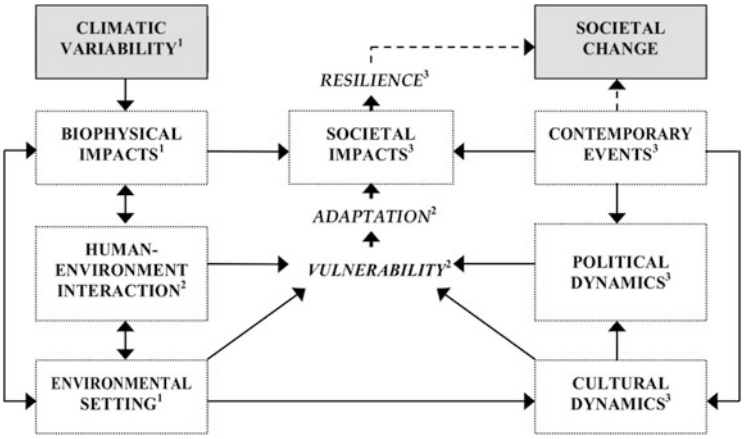

Fig. 2.4 Analytical model of research areas in climate history. 1: Climatic and environmental conditions and change; 2: Climate-society interaction; 3: Climate impact analysis and contextualisation

Discussion: Application and Scope of African Climate History

In examining the impact of climate change on society, it is important to first consider the nature of the climate change or weather event itself (Endfield 2012). With respect to climate reconstruction, multi-layered sources are required to establish the environmental setting of past societies (Pfister et al. 2008). Prior to the period of instrumental weather observations, it is necessary to consult palaeoclimate proxy data, along with other, man-made records of climate. Proxy data include tree-rings, corals, lake levels and speleothems, most of which are compiled under the National Oceanic and Atmospheric Administration (NOAA) Palaeoclimate Database. Although Africa suffers from a relative lack of proxy records compared to other continents, it is their interpretation that has been the subject of debate in the southern African historiography. One task, using extant methods within palaeo- and historical-climatology, is therefore to establish clearer sub-regional pictures of the past climate, particularly the timing and length of major wet and dry periods. This involves statistical analysis and comparison of records [see Jones and Mann (2004) for discussion of methods and Neukom et al. 2013 for southern African example], and investigation of their spatial extent and relevance. For the more recent past, there now exists a range of sources for historical climatologists to assess climate variability on an inter-annual scale in nineteenth century Africa. Sharon Nicholson has led the development of an Africa-wide precipitation data set from 1801–1900 based on proxy and rain gauge records and split over 90 geographical regions (Nicholson et al. 2012). This represents one of the first continent-wide resources providing scholars working on related issues with

Table 2.1 Climate history: an interdisciplinary framework

Area	1. Climate reconstruction	2. Climate-society interaction	3. Climate change impacts
Aims	To further understanding of late-Holocene climate variability	To deepen knowledge on long-term socio-environmental interaction and vulnerability	To assess climate impacts and their contextual importance in African societal development
Sources	Documentary data; missionary reports, administrative records, oral traditions, ships' logbooks Palaeoclimate data; tree rings, coral, speleothems, lake levels Global Climate Models Other; rain gauge records, archaeological site remains	Archaeological records, archival sources, oral traditions. Environmental geospatial data; soils, minerals, vegetation, water resources Palaeoenvironmental data; pollen records, animal and plant remains	Knowledge of past climates, environments and interaction with society (previous steps), archival sources, environmental models, resilience and systems theory
Key research areas	Past interaction • Reconstructions of spatial and temporal climate variability • Importance of various mechanisms of climate variability to humans (for instance, impacts of El Niño Southern Oscillation on drought in southern Africa)	• Economic, social, political and cultural role of climate and the environment • Physical and socio-cultural factors that influenced the vulnerability of past societies • Adaptation measures to buffer potential climate impacts	• Socio-environmental resilience to climate change • Significance of climate change impacts different groups • Contextual interaction of impacts with other factors important to these groups
	Past-future connections • Past spatial and temporal variation in climate and relation to future projections • Important modes of variability in the past, particularly those linked to drought, and their projected changes in the future	• Long-term economic, social, political and cultural importance of climate and the environment to various groups • Changing causes, mechanisms and timescales of vulnerability • Successful and problematic adaptations to climate change	• Human significance of climate over the long-term and its changes • Causes of changing socio-environmental resilience • Projected climate change impacts on historical land and resource divisions

a basis for assessing past precipitation variability. Various other reconstructions using man-made documentary archives such as missionary reports have also been undertaken. In southern Africa, for instance, reconstructions of nineteenth century precipitation variability have been conducted for Lesotho and the Kalahari (Endfield and Nash 2002; Nash and Grab 2010). This has recently culminated in

the development of a regional reconstruction of precipitation variability over the last two centuries (Neukom et al. 2013), and further such work is ongoing in this area (see ENSO Africa Project 2013). It is also possible to examine precipitation variability in the context of reconstructions of global atmosphere–ocean phenomenon such as the El Niño Southern Oscillation, an important mechanism of variability for precipitation in southern and East Africa (Tyson and Preston-Whyte 2000).

It is not enough, however, to simply state that an abrupt change in climate would have inevitably had an adverse impact on society. We must therefore consider the mediating context in which climate acts to understand societal vulnerability and resilience at multiple spatial scales. Vulnerability, often defined as the potential for loss (Tainter 2006), has important implications for understanding the susceptibility to harm in the context of climate change, and can lead to an improved understanding of long-term risk, though is often overlooked when considering the past (Carey 2012). This concept concerns both the physical characteristics of the local and regional environment, and the specific socio-economic and cultural relationships with the landscape. Physically, the impacts of anomalously wet or dry conditions are not the same for all crops, nor for the same crop in different soils. It is therefore necessary to examine the spatial differences in the environment as a whole rather than just climate, and the example of understanding the implications of spatial differences in soil character on food-producing societies offers just one way of doing this. A promising case study is found in the analysis of the role of the environment in the pre-colonial society of Engaruka in East-central Africa, which pays particular attention to soil character and local conservation practices (Westerberg et al. 2010). As well as physical factors, we must also consider socio-economic and cultural factors that affect vulnerability. In the case of southern Africa, ethnographic research on the Zimbabwe culture has suggested that the ideology of sacred leadership played an important role in the stability of state structures, particularly by way of the ‘control’ of natural phenomenon and rainmaking (Murimbika 2006; Schoeman 2006). This connection at Zimbabwe culture sites such as Mapungubwe and Great Zimbabwe could have meant that extended dry spells undermined the authority of the leadership and contributed to state decline (Huffman 2007).

A more formalised approach to assessing past vulnerability is “landscape vulnerability assessment” (Fraser 2007). Here, vulnerability is identified and evaluated using three key scales: agro-ecosystem, human action, and society [see Fraser (2007) for methodology]. Examining variables on these scales therefore creates three-dimensional space, indicating the vulnerability of the particular context under examination. In a similar approach, Ekblom (2012) examines the changing vulnerability and socio-environmental dynamics of Chibuene, Mozambique over several hundred years, while Manyanga (2007) comprehensively assesses landscape vulnerability in the Shashe-Limpopo basin in southern Africa. These areas constitute physical and cultural spatially specific features which can mediate the impacts of climate variability, each of which, alongside other factors including past adaptation and local knowledge systems, are key areas requiring further research across Africa.

Consideration of changing socio-environmental vulnerability thus provides a more fruitful approach than examining abrupt events of environmental and societal change or collapse. Such research generally follows the observations of McCann (1999), who suggested that in Africa, the "real value of linking the environment to historical process may lay in a more subtle, nuanced view of how environmental conditions set a context for social and historical interaction". Certainly, understanding the fundamental human role of and relationship with the environment and climate is essential when considering the possible effect of climate change.

A third key area in this climate history framework is evaluating the impacts of climate variability. This essentially depends on ability of a society to respond to this change, and the time- and place-specific context in which such changes take place (Endfield 2012). To a large extent this is based on the informed consideration provided from the previous two areas, though also involves contextualising climate, drawing it into debates concerning the range of other factors important to historical societies (as shown in Fig. 2.4) to avoid narrow and misleading conclusions. One concept that is important to this discussion is resilience, usually defined as the ability of a system to adjust its configuration under disturbance (see Holling and Gunderson 2002; Redman and Kinzig 2003; Tainter 2006; Endfield 2012). Investigation into societal resilience relates to numerous factors under the interactive areas in Fig. 2.4, notably the rigidity of social, economic and political networks, human resourcefulness, effectiveness of problem-solving, and the diversity of biophysical resources (Constanza et al. 2007). Taken together with analysis of vulnerability, then, these concepts can help to clarify the complexities of past environment-society synergies, giving far greater depth than the simplistic explanations put forward in some cases. In addition to resilience, contextualisation with other events and causal hypotheses is needed. One example in southern African history is the hypothesised link between "favourable" climates and political centralisation. Research has nevertheless suggested that only those societies connected to the East Coast trade network have evidence for large territories and the highest levels of political centralisation, and that it was only when the trade arrived in the greater Maputo that the southern polities of the Tsonga and Northern Nguni became centralised (Huffman 2004). Although this explanation is as disputed as the climate hypothesis, it may be a salient point, and it is therefore plausible that trade links may have been a factor of greater significance in the origins of class distinction. One could argue, therefore, that the role of the wetter conditions in the Middle Iron Age may be better viewed as contributory, allowing population increase in a concentrated area, encouraged by other mechanisms, contributing to the initial growth of the Zimbabwe culture. While parts of the literature, as evidenced, currently consider some of these factors, climate history provides a framework to evaluate and eventually weight each of the processes involved. This marks a move beyond a reductionist approach which isolates climate as a limiting factor in food production, towards the more nuanced view of the role of the environment and climate in societal dynamics over the long-term originally called for by McCann (1999), as well as the implications of climate change.

Climate History and the Future

Understanding of present and future challenges can greatly benefit from knowledge of the past co-evolving human-environment system (Constanza et al. 2007), and a state-of-the-art research theme is the potential of climate history to offer insights into future climate-society challenges. Nevertheless, such research remains in its infancy, with poorly focussed, alarmist and simplistic analogues of projected future conditions often presiding over appreciation of the experience of and adaptive responses to environmental challenges (Butzer 2012). While integrated assessment modelling, which incorporates factors such as population dynamics into the analysis of human impacts, offers tangible and relevant outputs, the translation of future climate change into societal impacts has been criticised (Hulme 2011). The societal impacts of climate change in Africa, according to the IPCC, will range from increased food insecurity, migration and conflict, to the exacerbation of gender inequality (Boko et al. 2007), while claims in the academic literature and media alike are often marked by fearful tones and overly precise numbers:

- "When combined with climate model projections... historical response to temperature suggests a roughly 54 % increase in armed conflict incidence [in Africa] by 2030, or an additional 393,000 battle deaths..."—Burke et al. (2009)
- "Millions of people could become destitute in Africa as staple foods more than double in price by 2050 as a result of extreme temperatures, floods and droughts..."—Vidal (2013).

These grand narratives of the future, stemming from the predictive authority of the dominant methodological discourse, neglect socio-cultural aspects that determine the impacts of and responses to climate change (Hulme 2011). Novel ways are thus being sought to contribute to this discussion, particularly by introducing a greater human dimension into studies. The reconstruction-interaction-impacts framework presented in Table 2.1 is consequently also relevant to this area. Firstly, investigation into past climates is a long-established tradition in climatology (Jones 2008), and there remains a continual need for this research as future model projections are subject to uncertainty. This particularly concerns how modes of variability for different spatial domains, for example sea-surface temperatures and the El Niño Southern Oscillation, have changed over the past millennium and recent centuries, as well as their impacts on regional and local precipitation. Methods of reconstruction in climate history, as well as palaeoclimatology are thus centrally located in this challenge (Ogilvie 2010).

Aside from further understanding past changes in the climate system, the scope of simply offering historical perspectives on climate change can go further. Carey (2012) argues that there is a relative shortage of research and policy discussion about people's lived experiences with climate. This relates back to the introductory claims of methodological reductionism, and future climate history research can therefore go beyond this by putting people back into the equation. Through examining concepts such as socio-environmental vulnerability, adaptation and resilience

in the past, climate history can provide insights into the societal forces, rather than just the environmental forces, that affect the human impacts of climate change. This includes social divisions, economic inequality and power imbalances, as different socio-cultural and political groups are affected in various ways. Such a focus can illuminate why climate has been a determinant factor at some times and places but not at others, and how this may be relevant to future impacts on different groups of people. Difficulty in assessing possible future climate impacts arises, for instance, when considering pre-colonial land and resource divisions, where predictability is reduced and uncertainty is heightened. A key historical development relating to this was the formation of state borders during the colonisation scramble of the late nineteenth and early twentieth centuries. These borders were geo-political constructs which paid little attention to previous boundaries between people or states, of which land and resource divisions were a part of. This divergence between nation states and ethnic entities has fuelled tensions and security issues in several sub-Saharan African nations, and it is thus possible that climate change will fuel this inherent source of conflict by exacerbating existing land and resource divisions in these zones of cultural friction (Boko et al. 2007; Scheffran and Battaglini 2011). An important question, therefore, is how past climate change has affected these areas, and how contemporary and future climate change will feed into historical conflict and security issues across the region. One recent suggestion in this area is for the production of "climate ethnographies" (Crate 2011). Crate argues that in the context of global climate change, the disciplines of anthropology and ethnography should focus further attention on developing locally contextualised information, especially in zones of cultural friction, on human perceptions and understandings of and responses to local change in both the recent past and present day.

Here, climate history is uniquely placed to locate potential renewed environmental conflict and security issues across the continent by its focus on the long-term societal forces that affect human-climate dynamics. It is well-established that the poor and marginalised will suffer disproportionately from climate change, but research must probe deeper into this matter. Why and how are they the most vulnerable? How has historical societal development affected this? Has societal change been inevitably linked to environmental change in the past? Does it offer precedents to develop solutions for the future? By offering deep-time interdisciplinary perspectives, a theoretical basis for climate-society interactions, and giving greater focus to human dimensions, the global development of climate history is beginning to contribute to these matters, but can, as Carey (2012) asserts, go much further in contributing to present-day discussion.

Concluding Remarks

Assessing the precise role and significance of climate variability on past societies is, as Endfield (2012) observes, fraught with difficulty, and in the pursuit of this, the insight of many disciplines is essential. Previous criticism regarding determinism

reflects a general need to further appreciate complex interrelationships (Butzer 2012), and related research would greatly benefit from the application of the concepts such as vulnerability and resilience. Climate history, through the above outlined reconstruction-interaction-impacts approach, offers one analytical framework to incorporate these concepts and clarify the complexities of past climate-society relationships. The development of climate histories on various spatial and temporal scales across Africa can thus enrich the historiography, and this chapter provides a starting point for Africanists working on related themes. Moreover, in the context of contemporary global climate change, one could argue that this debate has taken on a new significance. Through improved understanding of the temporal evolution of climate-society interactions, climate history is also well-placed to contribute to current discussion on this theme, particularly by placing human dimensions at the centre of research efforts. Far from advocating simplistic ideas about the past repeating itself, this concept of past-future linkages has the potential to provide the necessary well-founded, long-term perspectives on both the physical and human dimensions of climate change.

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Chapter 3
The Poor and Differential Access to Water in Addis Ababa, Ethiopia

Berhanu Woldemariam and Sagie Narsiah

Abstract Large numbers of people, especially in the poor urban areas of Addis Ababa, Ethiopia, have experienced problems of access to reliable and adequate potable water. This paper focuses on issues of equity, particularly access to safe and clean water in the poor areas of Addis Ababa. This paper is based on the results of a survey conducted in Addis Ababa in 2010. The key objective of the study was to assess access to water of the poor. The study covered water use; consumption patterns; availability and reliability of water; gender; income; monthly water expenditure and time taken to fetch water from existing sources. The results indicated that more than 60 % of the sample households use more than 20 l per person per day. Most households pay a relatively high price for drinking water. In the main poor households rely on water vendors for their water. We argue that the poor in Addis Ababa have differential access to water which is inherently discriminatory.

Introduction

Differential access to drinking water is a global phenomenon which has a peculiar spatial imprint. In the developing world it is a major challenge with over one billion people who do not have access to safe drinking water. Almost without exception it is the poor who do not have access to safe drinking water. Access to safe drinking water is facilitated through infrastructural networks and very often these networks are not extended to poorer areas and when they are it is somewhat truncated. The

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argument here is that the poor receive limited access to a resource which is essentially a human right (See for example Narsiah 2011, 2013).

African countries are facing major challenges related to growing competition for water resources and the ever increasing needs of populations. For example, in Addis Ababa, the capital city of Ethiopia, the demand for water resources has been increasing, as a result of uncontrolled urbanization, population increases and rural–urban migration. Addis Ababa has a population of about 2.7 million people (CSA 2007). It is a developing city, which is going through rapid urbanization and in consequence suffers from a shortage of water, which is especially acute in the poorer areas of the city. One of the major problems of the city of Addis Ababa is that the existing water supply only meets 62 % of the total demand (AAWSA 2008) resulting in shortages in many areas of the city.

Although considerable effort has been made to improve the provision of safe, clean water, and supply coverage, the poor have been suffering because of a deficient urban water supply and service management. This situation needs to be addressed urgently. The aim of this paper is to examine how the poor are discriminated against through the provision of differentiated access to the resource. The paper limits itself to the use of water for domestic purposes for residents of the Akaki sub-City in Addis Ababa. This paper reports on a study undertaken in the area.[1]

The Theoretical Logics of Differential Access

In this section we explore a theoretical explanation for the differential access to water. "Water resources management in cities of developing countries asserted that the logic of production is based on dual circuits of supply" (Marvin and Laurie 1999: 343). The primary (formal) circuit is operated by the government through the public utility. The secondary (informal) circuit is operated by private water traders or water vendors. People who live in high income areas of cities are directly connected to the formal water distribution networks. These water users tend to be

[1] This paper reports on a survey of 150 households undertaken in the Akaki sub-city of Addis Ababa. Akaki sub-city is one of 10 administrative units in Addis Ababa. Each sub-city is divided into a number of spatial units referred to as kebeles. The number of households was obtained from the 2007 population and housing census of Ethiopia for each kebele. The proportion of the number of households in each kebele to the total number of households in the urban unit was calculated and this proportion was used to determine the number of sample households from each kebele to be included in the sample. Therefore, proportional allocation of the sample was made on the basis of homogeneity of the socio-economic groupings. The required sample households were then selected within each kebele. From the total sample respondents, 70 % were heads of households. The average family size of the total sample household was 4.1, and ranged from 1 to 11. The age of the respondents ranged from 25 to 73 of which 56 % were women. The average age of respondents was 42 years. The average monthly income of the total sample was ETB 713.13 ranging from a maximum of ETB 3600 to a minimum of ETB 250 per month.

supplied with water that is under-priced considering the infrastructure and labour expenses associated with maintenance. Generally, high quality and unlimited supplies of water operate as a form of state subsidy to formal network users. "As the formal circuit usually operates at a single rate, the low rates charged by the public utility are rarely high enough to pay for the expansion of existing infrastructure to accommodate new users. Compared to the informal circuit, the quality of service and water supply is usually higher in the formal circuit (Marvin and Laurie 1999: 344).

The informal circuit run by private water traders provides water distribution to poor urban areas, usually low income households, found in the periphery of the city. These areas are generally not connected to the formal circuits of water provision. Vendors provide water supplies based on cost recovery and profit maximization. As a result they charge much higher prices. Those communities who are not part of the formal water network, including those who fetch water from public stand-points, are forced to buy water from vendors (kiosks). Furthermore, they do not have reliable supplies and have frequent interruption (Worldbank 1993). "Some urban users pay from ten to four hundred times as much for water through the informal circuit than the price paid by household users accessing private water connections" (Black 1996: 6).

"The spatial inequality of these dual circuits is broadly characterized and enforced separation; between informal and formalized systems" (Marvin and Laurie 1999: 344). Although each circuit operates under vastly different technologies, the interrelationship between formal and informal circuits is dependent on social relations that institutionalize unequal access to water resources (Swyngedouw 1997). For instance, the enormous costs associated with extending bulk infrastructure forces the public utility to depend on the informal sector to service areas that the state cannot reach. In return, informal water traders get subsidized rates for purchasing water. This subsidy is, however, rarely reflected in prices charged to the poor by water vendors (Hardoy and Satherwaite 1997).

One of the main problems in supplying water to African cities is the inability of municipal governments and public utilities to deliver and maintain basic infrastructure services for their growing populations (Carter et al. 1999). The traditional supply orientation of governments has tended to produce an overemphasis on facilities rather than on services. Also, the emphasis is on public sector provision rather than on effective approaches to complementary partnerships (Manikutty 1998). Low-income urban areas experience the greatest impact because they often remain outside the reach of basic municipal services. The result is an increased burden on health care, a lowering of the quality of urban life and reduced urban productivity (Jaglin 2002).

Examining water-management issues at the state-level, in terms of regional administration, are important in understanding how power relations shape the production and consumption of water in cities. High population growth, an increase in the rate of migration and greatly accelerated industrial and residential expansion has rapidly increased the demand of water supplies in many developing countries (Gilbert 1992). "Depending on grant and finance for capital expenditures, the

supply-based orientation of public services has been criticized for failing to recover costs, resulting in the lack of finance for operations and maintenance" (Jackson 1997: 7). The local state's inability to expand service delivery to address the growing demand for water services has disproportionately affected the urban poor.

In Ethiopia, everyone should have access to sufficient water of acceptable quality to satisfy basic human needs. Poor urban land management in Ethiopia has led to sprawling low-density human settlements where water consumption is highest (WWDSE 2001), while many high-density urban areas do not have adequate infrastructure to access formal water supply. Reforming public policies in each of these areas is intensely political as the existing policies reflect entrenched vested interests.

Addis Ababa's implementation of the revised growth and development policy has accentuated inequality and poverty. This is evidenced by the fact that 63 % of the population in its service area have in-house connections and use on average 80 to 100 l per capita per day, while the remaining 37 % are served by yard taps, public taps or buy water from kiosks. These residents use between 15 to 30 l per person per day (AAWSA 2008). Gaps in infrastructural service provision have a geographical pattern, particularly in terms of who can afford to pay for water. The existing water supply is sufficient only to meet 62 % of the total water demand of the city. The majority of the people living in poor urban areas do not have access to a reliable and safe water supply. The Addis Ababa water sector has a formal system of resource appropriation involving the water regulator AAWSA (the water supplier), and the consumer. The consumer pays for the service provided by the water supplier (AAWSA). The supplier is responsible for the management of water services in Addis Ababa. There is also an informal component characterised by water kiosks and vendors.

Overview of Water Services in Addis Ababa

The city's 2.7 million people live in sub-cities and 99 Kebeles divided for administrative purposes. Each Kebele has its own administrative boundary and local autonomy. The number of Kebeles has been recently reduced by merging most of them and by giving them more powers. The sub-cities are: Addis Ketema, Lideta, Cherkos, Yeka, Bole, Akaki Kaliti, Nefas silk, Kolfe Keranio and Gulele.

The increase in population coupled with poor urban land management has led to urban sprawl (Gilbert 1992). Many high density urban areas do not have adequate infrastructure to access formal water supply (Worldbank 1993). The increasing demand for water services in the urban areas of Addis Ababa remains a critical issue. Addis Ababa is characterised by unplanned land use and informal or shanty settlements on the periphery. The current water demand is said to be 420,000 cubic metres per day (105 l per capita per day), while the supply is about 270,000 cubic metres per day (60 l per capita per day) (AAWSA 2008). Forty five percent of the demand of the city is not satisfied. To address the wide imbalance of water demand

and supply, the Authority has to undertake water supply projects—establishing additional pipelines and revision of its management practices. The low standard of service delivery is evidenced especially in public water tap services. The absence of defined regulation of the public water tap system, has led to huge variances between public tap users who are paying more for their water and domestic connections (WAE 2005; Bereket 2006). Public taps in the city were administered by a person who was assigned by the local kebele.[2]

The Poor and Differential Access to Water in Addis Ababa

Water is the most basic of human needs. Indeed it is a human right. However, over the past two decades or so it has taken on the character of an economic good subject to all the exigencies of the market. As such, water is considered a commodity to be bought and sold and indeed grist for profit. In consequence, water takes on a class dimension – people's access to water is determined by their socio-economic status and more importantly by their place in space (Narsiah 2011). In Addis Ababa, it is no different. Here the poor have differential access to water. There are a number of dimensions to this.

Firstly, 83.3 % of households—primarily poor do not have in house connections.[3] They rely on public taps; kiosks and vendors for their water. What this means is that the poor actually pay more for their water than those who can afford private connections.[4] And, this is because they receive their water from what Marvin and Laurie (1999) term the informal circuit. In the study area only 23.3 % of the respondents indicated that water was very expensive and unaffordable. But, the reason for the low proportion of respondents saying that water is very expensive and unaffordable was due to the fact that households do not have access to existing water services. As a result those not provided the service at a price equal to those who have access were forced to buy water from vendors (kiosks) whose price is higher than the official tariff. Water is expensive for those from the low-income group. They fetch water from public stand-posts or buy water from vendors. This is

[2] Kebele is the lowest administrative unit in an urban centre.

[3] With regard to the type of water supply source and household uses it was ascertained that all the respondents used piped water. However, of the total respondents, 64.7 % used public water taps (community taps in a public area), 16.7 % used private taps, 9.3 % used yard taps and 9.3 % got water from vendors as their primary source. What is apparent here is that 83.3 % of the households depended primarily on public taps, yard taps and vendors or kiosk taps. The rest, 16.7 % of the households, use private taps as their primary water source. This water is supplied by AAWSA.

[4] The survey results reveal that households from the low income areas consume less than 1.2 m^3 and spend ETB 14.63 per month. Households from the private taps consume a maximum of 2.2 m^3 and above per month, and spend ETB 10.80 per month. Households from low-income areas spend, on average, 5.84 % of their monthly income, whereas middle income earners (those who have private taps) spend 1.30 % of their monthly income on water.

most severely felt in low-income urban areas which often remain outside the reach of basic municipal services (Jaglin 2002). This group of households are not connected to the existing network. They are often forced to buy water from vendors or to waste time in fetching water. As a result, they said that the cost of water was unaffordable. In setting a tariff for water supply the willingness to pay should be taken into consideration.

The tariff structure set by government is not equitable. The subsidies benefit the higher income group who have individual connections and use large quantities of water. Those who buy from public vendors and who receive a much inferior service, waiting in long queues and experiencing frequent shortages pay a higher rate per cubic meter to the public vendor. The users of public vendors cannot afford to pay the charges for individual connections. If the poorest members of a community consider that they cannot afford to pay for water from a public vendor, there is a great danger that these consumers will continue to use water from traditional sources which are unsafe. This is also contrary to the water resource management policy of Ethiopia that proposes subsidised tariff rates for communal water services.

A proportion of the low income group buy water from vendors at a higher price than the existing government water tariff. The average vendor price for water in the sub-city is 0.35 cents for a 20 l bucket of water (excluding labour cost) or ETB10.50 for one cubic meter. When this is compared to the official tariff rate, which is ETB 1.75 for the lowest consumption bundle (1–7 m^3). Public vendors charge 400 % more than the government tariff.[5] Since there is a shortage of water and the availability of water is unpredictable, people spent more by buying from vendors. Furthermore, households from the low-income areas spend more but, consume less compared to the private tap users.[6] The reason is that since water is not available at the required time and amount, relative to the other areas, these households usually buy water from vendors (whose price is higher than the official tariff).

[5] Households are spending on average approximately ETB 13.21/m^3 (US$ 1.10/m^3) for water. The majority of the people who collect water from public taps pay about 4 times more than the standard water tariffs for piped water supply set by the AAWSA. Poor people who pay 10–20 cents per 20 l-container from the public taps, pay 5–10 ETB per m^3; while those with house connections pay 0.50 or 1.00 ETB per m^3. Domestic users pay ETB1.75/m^3 for using up to 7 m^3 of water, ETB3.15 for using 8–20 cubic metres, and ETB 3.80 for any consumption above 21 m^3.

[6] Around 15 % of households were found to use less than 10 lpcd; 22 % of households used 10–20 lpcd; 33.33 % of households used 20–30 lpcd; and 16 % of households used 30–40 lpcd while the rest, 13.33 % of households, used more than 40 lpcd of water. The mean value of the per capita water use was 19.98 lpcd. The average per capita water consumption of more than 37 % of the sample households was less than 20 lpcd. This is low compared to the WHO recommendation of 20 l per person per day which is considered as adequate for domestic use or for basic access (UN 2001). These figures are comparable to AAWSA reported water consumption of 15–30 lpcd for households using public taps and yard taps as well. The average monthly consumption of water for each household is less than 1,200 l, which ranges from a minimum of less than 1,200 l (80 % of households) to a maximum of 2,200 l (9.5 % of households). The survey results reveal that the majority of households consume less than 1,200 l of water. Furthermore, these households are from the low income group, and do not have a private connection.

Some households do not buy from vendors. Thus, the monthly expenditure for water consumption may vary among households even though the volume of water consumed is the same. When this average monthly expenditure (ETB 13.21) is compared to the average monthly income of a household (ETB 713.33), an average household spends about 2 % of their monthly income on water. It is far below the World Bank's recommendation that a household should not spend more than a maximum of 5 % of their monthly income on water. This implies that a household living in the study area can save money if taps are provided. However, it should be noted that households using public taps and vendors are spending more without an improved water supply and have an unreliable existing water supply.

Due to the absence of a defined regulation for public water tap users, consumers pay four times the AAWSA rates (See footnote 5). People using water from vendors pay higher prices ranging from 30–40 cents for a 20-l container making the cost of water per cubic metre 8–12 ETB when there is an interruption or if taps are closed at the time of demand. Those public stand pipes intended to provide sufficient water for the communities have the effect of generating excess revenue for individuals. This indicates a lack of streamlining of systems for management and operation. Public water taps are found to be unsustainable. It is consistent with the Water Aid Ethiopia report that the operators pay a subsidized rate, which is the lowest rate in the tariff block, but charge a tariff rate which is far higher than the highest rate set for private connections. This is contrary to the water resources management policy of Ethiopia that proposes subsidized tariff rates for communal water services. It is the poor who pay the most for water.

Secondly, the poor face unnecessary hardship in accessing water. For example, the poor have to travel to collect water and this varies with the season. In the dry season the public taps and yard taps run dry. Consequently, households have to travel longer distances to collect water. The time taken to fetch water is more than an hour. Where there is an inadequate amount of water to meet demand, people spend more time fetching water. The Ethiopian Water Policy states that people should get their water within a radius of 0.5 km.

The study revealed that generally all households did not spend more time fetching water from the existing water sources since they did not have to travel more than 0.5 km.[7] The main explanation for this is that households who did not have piped water, fetch water either from public taps, or buy water from vendors or neighbours that already had piped water close to their home. These households pay more for their water (cf. Collignon and Vezina 2000). Time taken to fetch water is a significant factor not in terms of distance rather in terms of availability when public taps are closed/empty. People are then forced to buy water from vendors and spend time fetching water. This suggests that households perceive that by switching to the improved water supply system, they stand to save time spent fetching water from

[7] Around 72.7 % of the households get their water from a primary source at a distance of less than 250 m of which 56.7 % get water at a distance of less than 50 m. Only 27.3 % of the households have to travel more than 250 m.

the existing water source. The periods when public water taps are open are erratic—a few hours in the morning and sometimes in the afternoon. Consequently, they are more willing to have a private connection.

Thirdly, there is a related gendered dimension to collecting water for households. Responses regarding the responsibility for fetching water indicated that 96.7 % of adult female members of the family are responsible for fetching water from an outside source. Two percent of female children under 15 years old fetch water while only 1.3 % of males are responsible for fetching water. During the dry season households are forced to travel long distances where water is available (UN-WWAP 2006). By implication the time taken to fetch water from the available area with long queues means that women spend much time collecting water.

One of the main problems is the absence of legal status of water Committees in the area (Arsano 2007). Since women are the ones responsible for getting water, they should be encouraged to serve as operators at the local level (Rahmato 1999), and on the water committees since they are the ones who suffer most when the systems fail. As distance increases respondents are willing to pay more for improved water services. The results on household water use suggest that women attach more importance to improved supplies than men. They are willing to pay more and attach greater value to the improved services.

Fourthly, the water supply is unreliable. Out of the total sampled households, 98.7 % reported disruptions in supply. Only 1.3 % indicated continuous supply. With regard to the duration of supply, 6 % of the sample households get water for less than 4 h per day, 55.7 % get water for 5–6 h per day and the remaining 37.6 % get water for 7 to 8 h per day. Only 1 % get water for more than 9 h per day.

Water supply interruptions are a perpetual problem in Addis Ababa. The existing water supply is sufficient only to meet about 62 % of the total water demand of the city (AAWSA 2008), resulting in severe water shortages in many parts of the city. Around 30–40 % of the water supply is lost due mainly to leaking pipes and aging infrastructure. Rations and interruptions in the water distribution system are frequently experienced in the city. The reported frequency of interruption is 6–8 days per month. For 65.3 % of the respondents water supply is interrupted less than 8 days per month, while for 34.7 % of respondents water supply is interrupted more than 8 days per month. In general, the city has not been able to provide sufficient water to the people. In terms of reliability, the majority of the households said that the existing water supply is unreliable. One can observe from the preceding discussion that the urban poor are getting a low standard of water services. The existing service is not reliable. Interruptions to the household water supply were frequent.

Governance of the Poor and Poor Governance

In trying to understand the phenomenon of differential access as it obtains in Addis Ababa, respondents attitude towards the management and responsibility of the water supply service indicated that out of the 150 respondents, 141(94.0 %) thought

that the responsibility and administration of the water supply service should be given to the government. Of the remaining 9 respondents, 5(3.3 % of the total) said that the administration should be given to NGO's while 4(2.7 %) said that it should be given to the people of the sub-city Community Association Boards of Trustees. None of the respondents said that it should be given to the private sector. This would suggest that water vendors and kiosks are undesirable.

Most of the respondents, 121(80.7 %), said that the current management system of the water supply service was good. Twenty nine (19.3 % of the total) said that the current management of the system was poor and that it should be improved. Further, they thought that the management was weak and inefficient. Consequently there was no adequate infrastructure provision to access formal water supply. The traditional supply orientation of governments has tended to produce an overemphasis on facilities rather than a focus on services (Marvin and Laurie 1999). The effects of this are most severely felt in low-income urban areas which often remain outside the reach of basic municipal services.

Key informants from the community said that currently the institutional structure is changing, although the necessary institutional elements are not yet in place. They argued that, for example, some of the community members applied to get access to the existing system yet still they do not have access to a reliable and safe water supply. Further they said that community participation in the implementation of a water related program is absent. According to two informants from the sub-city kebele, the institutional structure at the local level is well organized and in each community there is a development program. The community is involved in the implementation program through an elected committee of the kebele administration. However, information from local NGOs who are conversant with local government issues does not confirm community participation in the institutional structure related to the water implementation program. NGOs referred to a disorganized and poorly implemented government structure.

The lack of coverage had caused water shortages in many areas of the city. Loss of water was common. This was due to system failure; inefficiencies; and poor maintenance. It was clear that water resources management was poor. As we observed from the above discussion there was a lack of coordination among the organizations and poor enforcement of legislation. Although considerable effort was made to improve the provision of safe and clean water supply coverage and to address the social and economic needs of the city's population, the urban poor were suffering due to lack of water because of poor supply and service management. This is evidenced by the frequent interruptions in supply.

Conclusion

It is apparent that there is poor management of water resources in Addis Ababa. There is a need for the regulation of public water taps in the short-term. Although public water taps provide an important service for the urban poor, they cannot be

viewed as a long-term solution. Absence of regulation means that the interests of the poor are not protected because they have less access to improved water supply and are vulnerable to water vendors. This vulnerability is exacerbated by AAWSA being unable to provide an improved water supply for the city's residents. Also weak and inefficient management of the water supply service in the local state are the main issues that need urgent attention. It was observed that the poor pay more for their water without an improved water supply system. Unreliable water supply and poor water management led to an interruption in water supply. Consequently, the urban poor were not the direct users of the water supply system. "Supply-side management of water resources are unable to provide adequate quality water to poor urban areas of low income households" (Marvin and Laurie 1999: 347). It is clear that sustainability and equity of water supply issues are undermined.

Since AAWSA is unable to provide sufficient water for its people there is certainly the absence of good water management and effective community participation. While the government thinking and conceptual development on water resources issues has grown impressively since 1999, the polices, practices and tools for translating that into sustainable management of water resources are not keeping up with the pace of the growing demands of society (Gebrehiwot 2007).

The analysis of the survey data on water collection, water use and other related aspects relating to the water supply in Akaki sub-city Addis Ababa, indicated that the urban poor are still getting below the required coverage of water services in terms of both quantity and service level and that they are paying a relatively high price for water. Most of the respondents (83.3 %) of households) in the study area were dependent on public taps, yard taps, and water vendors or kiosks for their water. Only 17 % of the respondents had private taps. The average per capita water consumption of more than 37 % of the sample households was less than 20lpcd, therefore the significant numbers of the households could be considered to have had no basic access to water supply.

Due to the absence of a defined regulation of the public water tap system in the study area, various problems occurred. During the research it was found that the public tap users were paying more for their water than domestic connections and that the prices at public taps varied widely. It was observed that the public taps in the city was administered by a person who was assigned by the local kebele. Many taps were used by less than 10 households while the AAWSA set standards, 40 household users per public tap, and 12 household users per common tap. The low standard of service delivery was observed especially in public tap services. This reflected the absence of management and operation of public taps. Public water taps provide an important service for the urban poor; however, there is no streamlined monitoring of the public taps in the Akaki sub-city.

The argument presented above indicates that the poor in Addis Ababa are no different from the poor in other major third world cities in that they are receive differential access to water. Yet, this is the most basic of human needs and essential to life. It is a human right which some 64.7 % of households in the study concur. The rationale for this was that water was essential to life and thus a fundamental human right and a vital social need. Therefore, government should provide water

free, or at a greatly discounted price to the poor. It could potentially be allocated like any other commodity to those who could afford it. The introduction of water markets and pricing would violate human rights, if the water tends to be privatised and only focus on the payment capacity of the people. Indeed in the study it was evident that a market for water has been created through water vendors and kiosks. And, it is the poor who use them. Because of the cost, poor users would be discouraged from using water for basic needs – what Narsiah (2010:15) terms "the market becomes the regulator of human rights. The recognition of human rights is thus determined by the ability to pay i.e. human rights are determined in economic terms". The study shows that the poor pay far more for water than the rich even though water is a public good.

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Chapter 4
Land and Identity in Africa: A Case Study of the Banyamulenge of the Eastern Drc

Priya Ylona Saibel

Abstract The ongoing crisis in the Democratic Republic of the Congo (DRC) is known as one of the worst since World War II because of the number of deaths that have occurred and are still occurring. Since 1998, an estimated 5.4 million people have died (International-Rescue-Committee. Mortality in the democratic republic of the Congo: an ongoing crisis. http://www.rescue.org/sites/default/files/resource-file/2006-7_congoMortalitySurvey.pdf, http://www.rescue.org/sites/default/files/resource-file/2006-7_congoMortalitySurvey.pdf, 2007). As of April 2010, at least 1.8 million people were displaced, a displacement which constituted the fourth largest in the world. 1.4 million of these were displaced in the provinces of North and South Kivu in Eastern DRC, an area that borders Rwanda (HRW. Always on the run: the vicious cycle of displacement in Eastern Congo, September. http://www.hrw.org/reports/2010/09/14/always-run-0, http://www.hrw.org/reports/2010/09/14/always-run-0, 2010). The time has come to understand the factors underneath the chaos to enable us to address the root causes of conflict effectively. This paper seeks to investigate the deeper systemic issues that affect or sustain conflict by focusing on the collective identity and relationship to the land of one specific group, the Banyamulenge of South Kivu.

Introduction

At first glance it would be tempting to classify the conflict in the Democratic Republic of the Congo (DRC) as a war of identity, a war over resources or a ruthless power struggle. These elements exist, but there are more factors to take into

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account. It is important to understand how collective identity[1] impacts and is impacted by land claims and in turn, how these elements relate to the current conflicts. The Land Question in Africa has occupied academic investigation and policy research for decades. Land tenure is complex enough in stable regions, but in conflict-ridden areas, it is complicated further. For competing land claims, what varies between contexts is "the specific conjuncture of activities, interests, relationships, and understandings that make up history at a particular time and place" (Berry 2001: 200). Land has also been one of the causes of social conflict as it relates to nationalism (Anseeuw and Alden 2010). Questions of who belongs where and why have triggered and exasperated existing conflicts.

Groups claim attachment to land for several reasons. Land is symbolic when it represents meaning to a group. Yet, the meaning of land shifts over time and from one generation to the next. This also implies that the need to belong to a place may be stronger for some generations than others. In this paper, I have drawn on the case study of the Banyamulenge to highlight their complex identity and how it has been influenced by the land that they claim. The paper employs secondary literature from history, anthropology, sociology and political science to examine the relationships among land claims, collective identity, citizenship and belonging and the state. It will also use historical inquiry to make sense of the unresolved issues from the past and reveal the contexts in which people lived, as these are critical to framing land and identity in the present. By adopting an interpretivist approach (Jackson and Verberg 2002), this research specifically focuses on the role and the power of collective identity in advancing land claims in regions that have undergone protracted conflict. The key foundational principle in this research is the fluidity of collective identity as well as the meaning of land.

The paper aims to shed light on how collective identity, notions of citizenship and belonging and the role of the state have intersected and impacted claims to land. The central argument is that collective identity is subject to change, shift and reconfiguration depending on historical events and the political, social and economic context. Groups are creative in their ability to contextually reshape and restructure their identities. Groups are creative and their identities are malleable. I will demonstrate that through a strategy of 'placing and naming' that the Banyamulenge entrenched their identities to the land to try to claim indigenous rights to land in South Kivu. Historical processes initiated the politicization of identities for the Banyamulenge. They were minorities within their regions and had to adopt the strategies necessary in legitimizing their claims to land, which meant that the Banyamulenge identity shifted in response to the social, political and historical context.

Collective identity is comprised of several elements, whether it is ethnic, racial, cultural, religious or political. These are markers of identity and not its only features. The danger in labeling a group according to one marker is that it dismisses and overlooks other markers as well as the dynamics of complex identity. Berry

[1] Collective identity in this study will entail ethnic, religious, racial and cultural identities.

(2001: xxvi) mentions that social identities are not static since "identity, like property, is negotiated and contested—shaped and reshaped over time by multiple, sometimes conflicting forces." Derman et al. (2007) assert that it is important not to privilege ethnicity over other identities, because identities change and shift with circumstances. Some markers may surface more strongly at certain times giving the illusion that a specific criterion is associated with a group. Furthermore, I argue that other elements of identity that may not be apparent in a given circumstance do not necessarily disappear, but are latent. There may also be new elements that emerge for a variety of reasons. While I do not argue that land is the largest or only reason for turmoil, groups vying for territory have been one of the cornerstones of the ongoing dysfunction.

This chapter demonstrates how collective identity has been impacted by group association with land, and in turn by the strategies that groups utilize to claim land. It will also look at the impact of historical events and politics of identity and the means taken to assert claims to land. The analysis is grounded in the impact of collective identity coupled with notions of citizenship and belonging to assess how these factors intersect to determine land allocation. The important questions that guide my research are: how is land conceptualized for the specified groups of people? How has land as a symbolic entity been strategized for groups claiming land? Is the contemporary means to assert authority over the land a legacy of colonialism? When and how does the state recognize territory and belonging for groups?

Literature Review: Land, Collective Identity, the State in Africa, and the State in the Drc

There is a growing body of literature that relates land to collective identity politics in Africa (Chaveau 2006; Lentz 2006; Lund 2008). In the academic literature, there is a tendency to look at land from a materialist lens but it is necessary to understand land in the African context. According to Lentz (2006: 1), "Rights to land are intimately tied to membership in specific communities, be it the nuclear or extended family, the larger descent group (clan), the ethnic group, or, as is the case in modern property regimes, the nation-state." Understanding the importance of land is critical because "the absence of any systematic analysis of land conflicts, and the integration of these insights into sound policies and post-conflict reconstruction strategies, potentially contributes to the perpetuation of the conditions which fuel conflict." (Lentz 2006: 2) Moreover, ancestral land impacts upon identities from "the ways in which people are bound to the land and relate to their natural surroundings as well as fundamental feelings of connectedness with the social and cultural environment in its entirety." (Lentz 2006: 2) Land is symbolic for most Africans because of how it has been positioned in traditionalist societies and economies, and not only because of its resource value.

For Brown (2006) people claim collective identity to the land through the state, the national sense of belonging, the sensually intimate connection to the terrain, the economic potential it holds, and what is legally defensible as property rights. Also, people tend to have stories which intensify and validate the connections to the land. When groups have been kicked off the land, when land was redistributed and when claims to land were not honoured by governing figures, these stories become tales of historical grievances. Generally speaking, land in Africa has been the site of struggles of possession, representation and control (Trigger 2003). Land and inequality around land have negative repercussions. The likelihood of violent conflict increases when many forms of inequality intersect and when these correspond to lines of racial and class identity (Derman et al. 2007).

In addressing the state in Africa, Bayart (1993) discusses the existence of an ethnic conscience that is often depicted as tribalism. Ethnicity cannot be separated from the state. "A product of history and the race for accumulation, created 'from the bottom' as much as by the 'national bourgeoisie' or 'imperialism', ethnicity criss-crosses the lines of social stratification and those of integration within the State." (Bayart 1993: 58) Ethnic conflict is prevalent throughout the continent and many scholars attribute this to the failed efforts of governments to accommodate contesting identities (Steeves 2002; Zewde 2008). Other scholars point to the violence in the African state "as a process of identification and differentiation" (Broch-Due 2005: 19), which is intrinsically linked to belonging. There may be implications for violence and belonging specifically in terms of land rights.

Nationality and land rights have been explored in the context of territorial sovereignty and conflict (Metzer and Engerman 2004; Austin 2004; Levy 2000). In reference to land and nationalism generally, Levy (2000) states,

> . . .nationalism thinks about that homeland in certain recurrent ways. It elides the distinction between sovereignty and ownership; all of the land belongs to this people, from whom it cannot be taken away. Nationalism typically conceptualizes land as place, not property. This piece of land is part of the patrimony of this nation. Perhaps it is of particular historical or religious importance. Perhaps the beauty of this spot is a cause for national pride, or perhaps this kind of terrain is taken to embody something about the nation. . . A people is in some way particularly well-suited to this piece of land (Levy 2000: 205).

This concept captures the idea of land as space and a place for a specified group of people. It is in this vein that I explore whether collective identity is entrenched in concepts of territory and belonging in the Kivus. In order to examine the formation of collective identity and its relationship to the land, I look at precolonial traditional Africa, the introduction of the colonial mindset and the interface between tradition and modernity in the post-colonial era.

Newbury (2009) uses identity narratives and historical enquiry to examine collective identity formation around the land in Eastern DRC. In Newbury's work, the fluidity of identity is prevalent. Additionally, there is information on the struggle for land claims in the Kivu regions, in light of the Banyamulenge occupying customary land that is administered by the state and communal realm (van Acker 2005). The competing claims to land have perpetuated conflict between the Banyamulenge and the indigenous Congolese. Local power bases and militias in the Eastern DRC use their collective identity to further their strategic interests:

> While ethnicity is not intrinsically violent, its manipulation by militias and other groups has made it a source of profound instability. Ethnic identities, however, remain a potent basis for belonging and accessing power at a local level in eastern DRC – and in the wider region – and are likely to continue to do so. Addressing the impact of local power structures based on ethnicity is therefore key to stability in order to encourage an environment in which ethnic identities are accommodated and expressed without being a major source of instability. (IRRI 2010: 5)

IRRI (2010) and Jackson (2006) address how the right of belonging is ethnicized and then politicized in the Great Lakes region, depending on geo-political interests. The research problematizes the granting of citizenship along ethnic lines and in turn, how citizenship affects and is affected by belonging. However, given the recent trend in the political economy of conflict, much of the literature focuses on the legal and economic aspects of land and conflict (Hintjens 2006; Jackson 2002; Kennes 2005), specifically on conflict minerals. This trend has undermined the grievances that groups face when their claims to land are not recognized by the state. These grievances are other factors underlying the current dysfunction in the Eastern DRC and have not been given due acknowledgement.

Collective Identity and Land

A significant amount of the literature on African identity is presented as ethnic identity (de Vos 2006; de Vos and Romanucci-Ross 2006; Eder et al. 2002; Tsuda 2006) but the elements remain pertinent to collective identity as a whole. Some of these elements include how groups define themselves, what constitutes group membership, the construction of identity in social situations and the need for a common cause. Vlassenroot (2002), for example, focuses on ethnicity in terms of identity formation and how this is used for groups to advance their social rights, political rights and participation. I, on the other hand, would like to emphasize that ethnicity is only a facet of a complex identity and not the identity as a whole. Eder et al. (2002) state that collective identities emerge and are often formed in relation to the other. This has implications for how groups construct their identity to assert land claims when there are other groups competing for the same spaces. The presence of the other pertains to the construction of identity among the Banyamulenge. Social identity has always been important to claiming and allocating land in African systems of tenure.

Collective identity is connected to the past but is configured through present events. Groups also look to the future to sustain their continuity (de Vos 2006). The connection of identity to the past, present and future would appear to be a linear process, but this is only part of the formative process. This is a reason why historical inquiry is necessary to grappling identity formation and what makes identity so complex. The salient identity of the Banyamulenge at the present time comprised of cultural elements from the past but is highly complex and has contextually reformed in their political environments. Identities, in whatever form they may be

"all exist in relation to each other and are held by all Africans" (Derman et al. 2007: 10). An ethnic group is "a self-perceived inclusion of those who hold in common a set of traditions not shared by others with whom they are in contact." (de Vos 2006: 4) The traditions are one of the sources of group cohesion and set in place the boundaries of group inclusion and exclusion. Symbolic boundary markers are the codes of group organization that determine who is included and excluded. Social practices, cultural distinctions and codes of group connection to the sacred are some of the markers that constitute symbolic group identity (Eder et al. 2002). If "belonging to a group... means being aware of group expectations and group regulations" (de Vos and Romanucci-Ross 2006: 378), we must keep in mind that group regulations and expectations are also subject to change especially if necessary for differentiation.

Eder et al. (2002) introduce the term of identicization, which is "the chain of events through which objective conditions of economic or political grievances become the basis of political claims justified by reference to a collective identity." (Eder et al. 2002: 17) Identicization is a process of action "through which collective identities are constructed, replaced, transformed and institutionalized." (Eder et al. 2002: 18) Since identicization is a practice, it cannot be separated from the political arena or from history as it is under these circumstances that groups learn to advance their goals, including claims to land. As de Vos (2006) highlights, many ethnic groups are in search of territorial or political independence but there are other goals that crystallize group cohesion. A change in group status usually prompts mobilization and can be a source of conflict. Groups can be created to serve expedient purposes, resolve the need to belong or to ensure the access to goods and services provided by the state (Eder et al. 2002; de Vos 2006). Ethnicity "appears in other ways to become increasingly determinant of political and social life" (Eder et al. 2002: 2) because it can be politicized as it has been among the Banyamulenge.

Boundaries between groups are not necessarily territorial but psychological, and therefore it is important to understand how these boundaries are maintained and transformed (Eder et al. 2002; de Vos 2006; de Vos and Romanucci-Ross 2006). What is interesting in the case of the Banyamulenge is how the boundaries of collective identity have been reflected in boundaries of the land. The coupling of psychological and territorial boundaries has enhanced what it means to legitimately belong to a place. The opposition to one's collective identity can lead to nationalist xenophobia whereby 'foreigners' become targets of hostility and violence and are subject to exclusion (Eder et al. 2002). The ways in which social boundaries are created and maintained vary, and these intricacies will be highlighted with the role of land for both psychological and territorial boundary distinctions.

From Kopytoff's (1987) *African Frontier Thesis,* it is evident that there are spatial and symbolic characteristics of land in Africa and this explains how groups came to be in certain places prior to imperialist control. This is one of the reasons why "the border needs to take on a poignant significance as a symbol for understanding the complexities and ambivalences of contemporary African culture." (Ahluwalia and Zegeye 2002: ix) It was the control over people that allowed for the Belgian regime in

Congo to assert dominance over the corresponding territories. Thus, understanding land in group identity for Africa means appreciating that in many cases, group identity emerged out of forced migration and settlement. This is true of the forced labour that transplanted many Rwandans to the Eastern Congo during the colonial era. Not only did the colonial administration codify territory but they also codified identity in their civilizing project. They distinguished people by race and ethnicity and established a privileged hierarchical ladder in which only the civilized Europeans who were at the top could be granted full citizenship rights (Mamdani 1996). People were classified as indigenous if they were on the land at the time of colonial arrival. Imposed definitions of race, subject-race, ethnicity and indigenity were a means to classify and control people accordingly. These codifications were strong in the Eastern Congo, but continued to impact the post-colonial state and remain pertinent to understanding land and contemporary identity. Groups have had to manoeuvre in these new state systems and structure their identities accordingly. This is the case for the Banyamulenge, who have reshaped their identities from the pre-colonial to the post-colonial periods in order to advance their claims to land (see Fig. 4.1: Identity Map for the Banyamulenge, author's own).

Ashcroft (2002) states that post-colonial societies have indigenized colonial space and maintained borders that are perceived as necessary in modernization. Yet, boundaries have disrupted collective groupings of people and this has contributed to the proliferation of intra-state and inter-state conflict. Within the creation of new boundaries and administrative areas for communal tenure, there has also been the re-structuring of identity. Delineated spaces also have implications for minority groups who have become coupled into new territories with other dominant groups. Furthermore, the Democratic Republic of the Congo has undergone decades of conflict that has caused migration within the country and across borders. Mortality in the democratic republic of the Congo: an ongoing crisis. http://www.rescue.org/sites/default/files/resourcefile/2006-7_congoMortalitySurvey.pdf, http://www.rescue.org/sites/default/files/resource-file/2006-7_congoMortalitySurvey.pdf, 2007). As of April 2010, at least 1.8 million people were displaced, a displacement which constituted the fourth largest in the world. 1.4 million of these were displaced in the provinces of North and South Kivu in Eastern DRC, an area that borders Rwanda (HRW. Always on the run: the vicious cycle of displacement in Eastern Congo, September. www.hrw.org/reports/2010/09/14/always-run-0, http://www.hrw.org/reports/2010/09/14/always-run-0, 2010). Since each communal regime is administered by specific social systems, access to land has been complicated by definitions of indigenity, which has marginalized several minority groups. "The manner in which immigrant minorities are received in the host society greatly affects their ethnic experiences and identity outcomes." (Tsuda 2006: 158) Many ethnicities are accommodated in terms of land allocation in the communal sphere (Derman et al. 2007), but the identities of the Banyamulenge have been marginalized and politicized, which has affected their claims to land. The Banyamulenge are perceived as foreigners in South Kivu so are at a disadvantage in accessing land. Therefore the ethnic element has surfaced more strongly than other identity markers and is used to legitimate belonging.

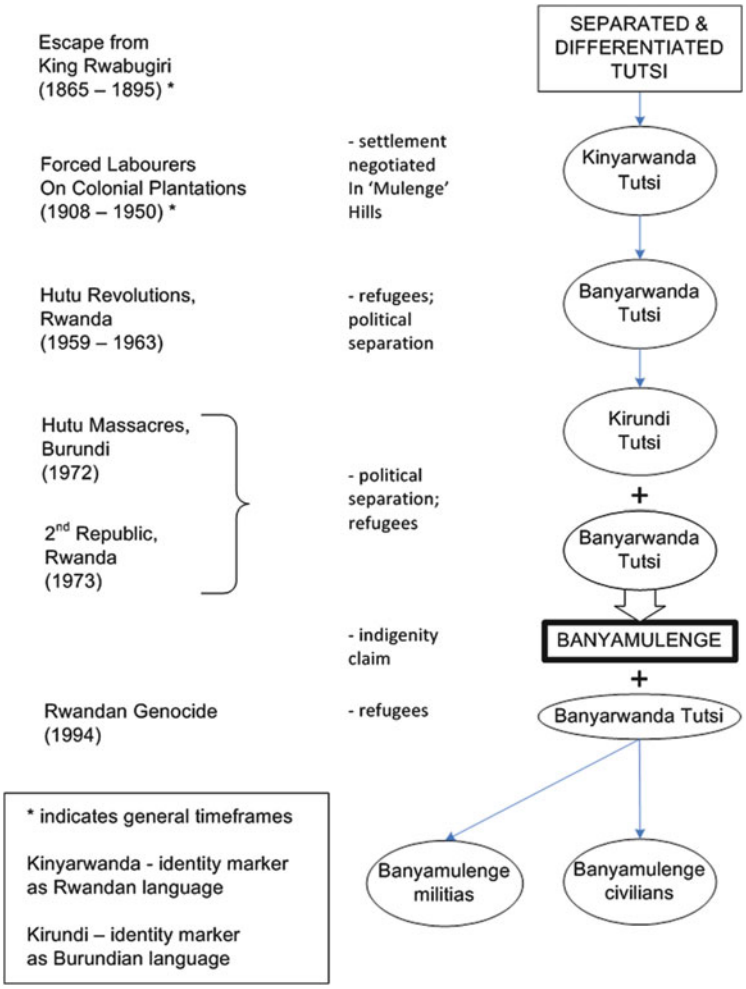

Fig. 4.1 Identity Map for the Banyamulenge

Land has symbolic importance to these groups as it constitutes livelihood, which means more than work, labour or a way of escaping poverty. However, several scholars have argued that it is necessary to understand what land means to groups in their traditions and rituals (Toulmin and Quan 2000; Berry 2001; Cousins 2010; Derman et al. 2007; Hebinck 2007). Furthermore,

> . . .in indigenous or traditional Africa, growing food or herding on the land is more than a "job"; it is both a life-style and an occupational source of living for the overwhelming majority of people. It defines social and cultural identity, mode of living, and integration into the environment. (Deng 1988: 369)

> It is important to understand how group identity emerges and is strategized to claim land. "The idea that land adheres more to 'community values' oversimplifies the connections between land and identity on the one hand, and tends to narrow rather than open up the discussion of how and why identities are important, on the other." (Derman et al. 2007: 9)

'Placing and Naming': The Banyamulenge of South Kivu

The term Banyamulenge today is used to describe the entire Tutsi diaspora in the Kivu regions who have come from either Rwanda or Burundi (Mamdani 2002). Although the name did not come into use until later, I will use this name for the purpose of this section as I seek to understand the origins of this group. First, it is important to discuss the identity of Tutsi in Rwanda and Burundi. In the seventeenth and eighteenth centuries, it might have been possible to classify Tutsi as a distinct ethnic group, but there have been centuries of intermarriages with Hutu and Twa[2] making Tutsi a fluid identity. Hutu is also a fluid identity but has a different history (Mamdani 2002; Newbury 2009). However, recent history, such as the Rwandan genocide of 1994, has shown that Tutsi were polarized against Hutu, causing people to affiliate with one of these identities.

> Much of the popular history of these two countries [Rwanda and Burundi] has treated ethnic groups as if they were racial groups, biologically distinct, each with its own history separate from the others. But despite the presence of different physical stocks in this area, two points are worth noting: these ethnic groups are not clearly distinct and internally homogeneous racial categories, as many mental models assume; and, even if they were, such racial categories provide a poor guide to historical understanding. (Newbury 2009: 298)

An exploration of the history of Tutsi in the Great Lakes region and the system of forced labour in the Eastern Congo allows us to understand the unique way in which the term 'Banyamulenge' emerged as a collective identity (see Fig. 4.1).

The origin of the Tutsi in the Kivu region remains contested. What is known is that the Tutsi were powerful in Rwanda at the time of the Royal Court. It is in this context that the identity of Hutu was generated, through subordination under the court power of the Tutsi. The contemporary clan structure in Rwanda stems from the influence of the Royal Court in the eighteenth century under King Rwabugiri. It was also during the time that the first Rwandan Tutsis entered the Eastern Congo, in what is now South Kivu, and when Rwandan Hutu became subjects under the King's rule. Mamdani (2002), on the other hand, asserts that Hutu was never an ethnic identity and that both Hutu and Tutsi should be perceived as political identities that shifted with the changing Rwandan state.

Political identities may be enforced from above but are also shaped from below in the process of state formation. In Rwanda and the Great Lakes region these political identities were reproduced by the colonial state and have impacted identity construction in the post-colonial period. The crucial point is that "political identities

[2] Twa is another group in Rwanda and Burundi (Newbury 2009).

are the consequence of how power is organized." (Mamdani 2002: 22) The access to and the organization of power defines the scope of the political community as to who is ultimately included and who is excluded. It also defines which groups are perceived to legitimately belong to an area. According to Mamdani (2002: 23), the difference between a cultural community and a political community is that "a common cultural community signifies a common past, a common historical inheritance… a political community testifies to the existence of a common project for the future." I would like to assert that these two types of community are not so easily distinguished. These identities can easily overlap where the cultural community can draw on the political history and events that have shaped who they are, while political identities can look to the past, to injustices that need to be reversed and use these premises to set the stage for the political future of a state. This is why I argue that political identities are a part of complex identity, and develop from other components. It is these components that become politicized and are thus defined as political identities.

Tutsi settlement in the Eastern Congo dates back to the late eighteenth century, a time when the elite Tutsi wanted autonomy from the Rwandan state and the heavy taxation imposed by Rwabugiri. After the King's death, more Tutsi arrived in the Congo to flee the internal power struggles in the Rwandan Court (Newbury 2009; Mamdani 2002). In the late eighteenth century, identicization with land for the Tutsi in South Kivu stemmed from the political necessity to flee Rwanda and was enhanced by their livelihood as pastoralists (Mamdani 2002). The high plains of the Kivus became a refuge and the new homeland for an unknown number of Tutsi who escaped the Rwandan state.

During the colonial regime in the Eastern Congo, the Belgians also administered Rwanda. Rwandan Hutu and Tutsi were forced into a brutal system of slave labour in the Eastern Congo to generate revenue for the Belgian state. Approximately two hundred thousand people immigrated to the Kivus during the colonial period (Deng 2001). With the aid of the colonial administration, they were granted permission to settle on the land by the Bafuliro, a group indigenous to the South Kivu region. Under the communal regime in 1924, the chief of the Bafuliro allowed for settlement on the high plateau of the Mulenge Hills (Mamdani 2002; Deng 2001; Prunier 2009). It is said that from 1925 to 1929, labour recruitment from Rwanda and Burundi numbered over seven thousand (Mamdani 2002). New arrivals of Banyamulenge settled among those who had been established on the land since the 1880s. In communal tenure, groups had their own authorities who were defined, by colonial powersvia the native authority, along the lines of ethnic similarity; however the ethnic groups had to be deemed indigenous to the area. The chiefs were the authorities who could deem whether a group was indigenous. Since the civil sphere was defined on the basis of race, the colonial authorities had to further distinguish the communal sphere by ethnicity because they needed to break down the population into smaller, more manageable groups to exercise control. Since the majority of the population were subjected Africans, grouping people by race alone would have threatened the minority of European citizens. Therefore a system of both racial and ethnic classification allowed the Europeans to exercise complete control over the subject population in the bifurcated state.

Table 4.1 The colonial state

	Direct rule	Indirect rule
Two realms	Civil sphere	Communal/customary sphere
Governance	Colonial authorities	Native authority
Laws	Civil laws	Customary laws
Identities	Racial distinction – Europeans (citizens) – Subject-classes (virtual citizens) – Subjects	Racial and ethnic distinction – Indigenous – Non-indigenous (ethnic stranger)
Access to land	Appropriated by citizens	Communal tenure granted by customary authority

Source Mamdani (1996)

In North Kivu, the Banyarwanda had a traditional authority in the communal realm, but this was never as secure for the Banyamulenge in South Kivu (Mamdani 2002). Therefore, access to land for the Banyamulenge meant negotiating with local indigenous authorities and having to assert their identity in such a way that it earned them a piece of the land. The forced settlement provided a safety-net for land access for a period of time, as ultimately the Europeans were in control. Throughout the 75 years of Belgian control, people were not only relocated but different groups were forced to coexist in the same areas. Over time, the interconnectedness of different groups forged new identities as they developed social relations and engaged in intermarriages. These shifting social identities were also impacted by the Banyamulenge's new homeland of the Eastern Congo.

I have stated that colonial powers codified identities by institutionalizing race and ethnicity which brought about the politicization of identities. In Rwanda, the Tutsi were perceived to be a superior race by the Belgians due to their power in the state prior to colonial arrival and due to the Hamitic Hypothesis. This hypothesis gave Tutsi a superior status from the belief that they came from elsewhere. Under the colonizing project, ruling groups had to originate from elsewhere to give Africa some degree of organized state life. Mobile groups were considered to be Hamites and because they came from elsewhere, they were the qualified assistants in the colonizing project. This was a cornerstone of the imperial mindset. They became the subject-races while the Hutu were subjects (see Table 4.1). The reform of 1920 transferred power from the monarch to the local chiefs who were all Tutsi with power in state administration. The Hamitic hypothesis applied to Rwanda and Burundi, but "only in Rwanda was the notion that the Tutsi were a *race* apart from the majority turned into a rationale for a set of institutions that reproduced the Tutsi as a *racialized* minority." (Mamdani 2002: 87) The Tutsi in Rwanda were therefore resented by the Hutu majority during the colonial era because they were the privileged minority race. The census of 1933–1934 in Rwanda placed the entire population at around 1.8 million, with Tutsi accounting for 14 % of the population. It was after the census that these two identities were enforced legally so that their labels held permanently (Mamdani 2002).

Mamdani (2002) states that Hutu and Tutsi became political identities in Rwanda as it defined who got access to power in the state. However, I argue that their racial and ethnic distinctions became politicized because it was these elements that defined a privileged status.

> Political identities exist in their own right. They are a direct consequence of the history of state formation, and not of market or culture formation. If economic identities are a consequence of the history of development of markets, and cultural identities of the development of communities that share a common language and meaning, political identities need to be understood as a specific consequence of the history of state formation. When it comes to the modern state, political identities are inscribed in law… they are legally enforced. (Mamdani 2002: 22)

Therefore group identity takes on the political dimension to assert and legitimize its claims. When law recognizes people as a member of a specific ethnicity or race, state institutions are configured to treat members of these categories accordingly (Mamdani 2002). The political identity became a matter of necessity in the context of the Rwandan state, but this does not mean that the other elements of group identity disappeared.

The politicization of Hutu and Tutsi identities in Rwanda also affected how the Tutsi were perceived in the Eastern Congo, particularly after independence. In the Eastern Congo there were no subject-races, so when the Tutsis migrated, the institutional configuration meant that they became non-indigenous strangers (or foreigners) in the communal sphere. In regards to the Banyarwanda,

> …the identity experiences of immigrant minorities are also influenced by the racial categories and identities that are imposed on them by the dominant host society. Frequently, these externally ascribed ethnic identities are different from and conflict with their own ethnic understandings that they bring from their home country (Tsuda 2006: 158).

The perception towards Hutu and Tutsi in the Eastern Congo also shifted in time, and was impacted by the post-colonial government, institutions and the reconfiguration of state and regional powers. Identities are impacted by how groups perceive themselves and how they are perceived in the socio-political sphere. If there are hostilities towards a group in the host community, members of the targeted group will align their identities in such a way to preserve themselves and gain access to the goods and services of the state, often with violent repercussions.

The three waves of post-independence Tutsi immigration into the Eastern Congo thus far were in 1959–1961, 1963–1964 and 1973. As the Tutsi diaspora[3] grew significantly in the Congo the population became strangers without an ethnic home. The diaspora of the 1960s associated their home as Rwanda but as their children were born in the Congo, the later generations associated their home as the Kivus

[3] There was also an extensive Tutsi diaspora in Uganda and Tanzania (Mamdani 2002).

and were determined to maintain this (Mamdani 2002). This is a clear example of how the meaning of land and what translates into homeland varies from one generation to the next. Land became symbolic to those who were born there. It was these later generations who were more determined to entrench their identity to the land in the Kivus and sought the means to claim indigenity.

The differences and hostilities between Hutu and Tutsi persisted and erupted in post-colonial violence when the first Hutu Revolution of 1959–1963 in Rwanda generated a mass exodus of Banyarwanda Tutsis into the Eastern Congo. The principles of the Revolution were premised on the Hutu gaining justice at the expense of the Tutsi and switching the state to majority rule. Therefore Tutsi were forcibly removed and the resulting diaspora in neighbouring countries remained more political than cultural. During this period, except for the Banyamulenge of South Kivu, in the Kivus, the Banyarwanda did not distinguish themselves as Hutu or Tutsi but as the Kinyarwandan speaking people from Rwanda. Another influx of Tutsi refugees from Rwanda occurred in 1973 when Major General Juvénal Habyarimana carried out a bloodless coup on July 5 to start the Second Republic. In this period, Hutu and Tutsi were redefined as ethnic identities to be protected under the state but this did not prevent the fear of more violence against the Tutsi population. The ethnic element of these two groups was highlighted once again. Although Habyarimana was committed to protecting all the people of Rwanda he emphasized that the protector had to be a Hutu. Tutsi were a minority in Rwanda but were allowed to participate in the political sphere again. Similarly hostilities prevailed in Burundi but in 1972 there was a massacre of Hutus (Jackson 2006; Mamdani 2002). Burundian Tutsis fled into South Kivu and settled among the Banyarwanda Tutsi. With the neighbouring violence, the Tutsi population wanted to separate itself from the politics in its country of origin.

It is assumed that the term 'Banyamulenge' emerged during these internal political struggles in the two countries (Deng 2001; Jackson 2006; Mamdani 2002). Jackson (2006) introduces the terms 'autochthon' and 'allochthon' to distinguish between the indigenous and native Congolese and the non-indigenous foreigners. The term autochthony is Greek and "means 'from the soil itself' and implies intimate, aboriginal connection with the territory." (Jackson 2006: 98) The term has come to mean 'sons of the soil' which is a direct claim to indigenity. Among ethnic identities of the Eastern Congo, the name of groups is derived from the place in which they live, the collectivité. The Banyamulenge resided in an area that covered three different territorial administrations that constituted three different indigenous Congolese groups (Mamdani 2002: 248):

1. the territoire Mwenga that was inhabited by the Balega,
2. the territoire Fizi inhabited by the Babemba, and
3. the territoire Uvira inhabited by the Bavira and the Bafuliro.

Since some of these areas constitute more than one collectivité, the Banyamulenge paid homage to the chiefs of the different collectivités to gain

Table 4.2 The postcolonial state

		Ethnic sphere	
	Civic sphere	Indigenous (autochthon)	Non-indigenous (allochthon)
Citizenship	Civic	Ethnic (indigenous)	Contingent on state
Rights	Member of state – Political and civil rights; individually based	Membership in native authority – Group-based rights – Social and economic rights; right to land as livelihood	Dependent on recognition of group and right to belong – Non-secure
Access to land	Market transaction – Purchase and property transaction; inheritance	Recognized ethnic group that is governed by own Native authority	Very minimal – Subject to decision of customary authority

Source Mamdani (2002), Jackson (2006)

access to the land. Moreover, the Banyamulenge employed this name to link their identity to the Mulenge Hills in South Kivu and to attempt to claim indigenity.[4] It was a means for individuals in the Tutsi diaspora in South Kivu to differentiate them from the political violence occurring in their countries of origin. Additionally, the communal realm remained highly ethnicized and the Tutsi in South Kivu still lacked the sufficient representation of a Native Authority to ensure them access to land.

Indigenity is the key to obtaining land rights within the political, social and cultural sphere of the Eastern Congo. The formation of identity was tied to territory and was based on gaining rights. "The claim to shift identity from the ethnic (the Banyarwanda) to the territorial (the Banyamulenge) must, in this context, be seen as an attempt to define a more inclusive basis of rights, based on residence rather than ethnicity." (Mamdani 2002: 249) The strategy of 'placing and naming', of shifting and negotiating identity, is how the term 'Banyamulenge' came to be.

Under the post-colonial governance of Mobutu in Zaïre, there were different citizenship decrees that were passed to unify the Congolese people and differentiate between those who were indigenous Congolese and those who were not. The Congolese state distinguished between the former arrivals of Banyarwanda and the later ones, such that "the former were considered *nationals,* but the latter were divided into colonial-era *migrants* and postcolonial *refugees*." (Mamdani 2002: 236, italics in original) The nationals had a right to native authority whereas the two other categories were considered ethnic strangers or foreigners. The nationals only had a right to a native authority so long as they were recognized as indigenous (see Table 4.2). In order for the Banyarwanda and Banyamulenge to maintain access to

[4] There were other Tutsis who tried to claim place-based identities in different regions, for example the Banya-tulamo and Banya-minembwe. Like the Banyamulenge, they moved into areas and attempted to entrench their identity to the land to be seen as indigenous. See Mamdani (2002).

land, they needed to be recognized as nationals or citizens, and so the means by which the Banyamulenge entrenched their identity to land was impacted by the meaning of citizenship in the Congo.

The current citizenship crisis in the Congo dates back to the 1960s and has played a significant role in the ways in which the Banyamulenge have tried to assert their identity and legitimize their belonging in South Kivu. The 1964 constitution emphasized one Congolese nationality and stated that from the date of independence in 1960, all those people who had an ancestor or tribe member established on the territory of Congo before the 18th October 1908 were to be considered Congolese. Since many indigenous Congolese expressed doubt as to there being any Rwandans there before 1930, the Banyarwanda and Banyamulenge were easily excluded from nationality (Jackson 2006).

Amongst Mobutu's strategies for building a powerbase was to rise to prominence representatives of ethnic groups that could not threaten him "because of the fact of their numerical weakness and the ambiguity of their political and social status" (Jackson 2007: 485). Mobutu turned to the tiny, but influential, Congolese Tutsi community and appointed a Banyarwandan Tutsi, Barthélemy Bisengimana, who is said to have influenced the new law of 1971. This law stated that all Rwandans and Burundians in Congo as of 30 June 1960 were to have Congolese Nationality because of the ongoing disputes and ill treatment of these people in their host countries. Shortly after article 17 of the 1972 Law shifted the qualifying citizenship dates back to those Rwandans and Burundians that were on Congo territory before 1 January 1950 (Jackson 2006; Mamdani 2002). The 1972 Law discounted all of those who arrived between 1950 and 1960. The key dates that marked citizenship corresponded with dates that were significant during the colonial regime. Another citizenship law in 1981 pushed the qualifying date back from 1908 to August 1, 1885. The Congo witnessed growing tensions in the 1980s with provincial elections. Although the 1981 Law was passed, it was not implemented until 1992, when the Conférence Nationale Souveraine (CNS), an internal opposition party to Mobutu, surfaced. The CNS used the rhetoric of 'foreigner' against the Banyarwanda of North Kivu especially because of their land holdings. This term was quickly used to define the Banyamulenge as well. In 1995, all rights of citizenship for the Banyarwanda and Banyamulenge were withdrawn.

The Rwandan genocide of 1994 forced over a million Tutsi and moderate Hutu over the borders of the Eastern Congo, mostly into North and South Kivu, when the Rwandan Patriotic Front (RPF) invaded Rwanda. This caused tensions between Kivu and Rwanda and within Kivu society (Mamdani 2002). There were several dynamics at play that influenced identity markers. First, indigenous Congolese did not distinguish between the longstanding Banyarwanda and Banyamulenge of the Kivus and the new refugees, and this heightened the divide between indigenous and foreigner, or autochthon and allochthon. To the Congolese, allochthon means someone who is not entitled to have presence in the Congo and they are identified

through derogatory, dehumanizing language (Jackson 2006).[5] While the rhetoric of 'foreigner' was applied to all Banyarwanda and Banyamulenge, the Banyamulenge were less favoured, as I discuss below. Second, the aftermath of the genocide carried over to the Congo where recent Hutu and Tutsi immigrants from Rwanda now coexisted. With citizenship rights revoked for the Banyarwanda and Banyamulenge, who had been present in the Kivus for decades before the genocide, and the arrival of new refugees from Rwanda, the identity markers of Hutu and Tutsi were salient and applied to the entire Rwandan and Burundian diaspora, despite their length of time spent in the Congo itself.

The post-colonial period has not provided a basis of security for the Banyarwanda and less so for the Banyamulenge. Amidst the politics in Rwanda, the indigenous Congolese have been more favourable to the Hutu, with whom they have allied in the Congo Wars against the Tutsi and with whom they share a common Bantu heritage. For the Banyarwandan Hutu population, "with respect to the national scale, they are Rwandophone, allochthon, other. With respect to the regional, however, they are Bantu, familiar, autochthon." (Jackson 2006: 113) The treatment of the Hutu by the Congolese has been preferential. From the Hamitic Hypothesis,

> the 'Bantu' – a megaethnicity including such groups as Nande, Nyanga, Hunde, and Hutu – were deemed the autochthon population bloc of Central Africa. 'Nilotes' – supposedly the Tutsi in Rwanda, Burundi, and Congo… – were depicted as historical invaders and dispossessors all the way from the Horn of Africa: allochthons par excellence for the entire region (Jackson 2006: 107).

The notion of historical invader depicts notions from the frontier and here the importance of firstcomer legitimated who was considered indigenous. Firstcomer seems to be synonymous with autochthony. Since the Tutsi were painted as invaders, they did not qualify for the same rights and privileges as the Bantu (see Table 4.2). These elements predate the colonial period and relate more closely to the African frontier. When the colonial administrators codified the identities racially; the hostilities between now racialized groups existed prior to European interference, but not to the extent of sparking a genocide as we witnessed in 1994.

The resentment towards the Tutsi that accumulated during the colonial period persisted even in the aftermath of genocide. The Banyarwandan Tutsi after 1994 connected with the Banyamulenge because of their common Tutsi identities (Jackson 2006; Mamdani 2002). The attitude of the indigenous Congolese towards the Banyamulenge in the Eastern Congo is very hostile and those that were once second or third generation immigrants are identified under one umbrella with the new arrivals. Thus the entire Tutsi diaspora in the Eastern Congo became known as Banyamulenge. In 1995 there was a census of the Eastern Kivus to determine who was indigenous. When the Banyamulenge submitted historical and ethnographic evidence for their presence in South Kivu, the state retaliated by appointing a

[5] The language that has been used in the Congo since 1996 depicts Rwandophones in derogatory terms, calling them anything from vermin, insects or cockroaches. See Jackson (2006).

Sub-Commission to qualify Rwandophones as "autochthons from before 1885," "transplantees", "refugees" or "clandestines" (Jackson 2007: 487). All of these classifications are discriminatory and were mandated by the same politicians who wanted to adopt democratic principles within Mobutu's state. These strategies point to a duplicitous political culture.

In South Kivu, in 1995, the district commissioner of Uvira demanded an inventory of all property and landed owned by the Banyamulenge which was followed by evictions. Many Banyamulenge were deported to Rwanda and Burundi in 1996 by the HCR[6] while others were subject to attack by government-supported indigenous ethnic militias. In October of 1996 the deputy governor of South Kivu announced that all Banyamulenge had a week to relocate to temporary camps. Violence against Tutsi escalated drastically in the Eastern provinces forcing many to flee over the borders, where border officials confiscated their Zaïrean identity cards (Manby 2009). It was these hostilities that prompted the Banyamulenge and three other ethnic groups to form the AFDL[7] under Laurent Désire Kabila. With the AFDL the Banyamulenge began their militarized tactics which have lasted to the present time.

The Congolese see the Banyamulenge as allochthons whereby "the typonym *Banyamulenge* is nothing but a transparent attempt at faking autochthony in order to stake a primordial claim to Congolese territory." (Jackson 2006: 108, italics in original) The perception of the other is historically defined by mistrust, ill-treatment and resentment. Perceptions and understandings of identity are manifested through language:

> Though declaratory and seemingly certain of itself, the language of autochthony, whether exhibited in tracts, in ordinary conversation, or in public political discourse, retains an indistinctness and evasiveness that allows it to distribute its meaning across multiple scales (Jackson 2006: 110).

The language contributes to how the other is perceived and has negative effects for the Banyamulenge and their struggle to legitimize their claims to land. It is a language that is obsessed with the notion of ethnic purity. When this purity cannot be achieved, Jackson (2006) says that a state of paranoia is created. Identities are polarized where the Banyamulenge are viewed as the impurity that threatens the future of the Congolese people.

As allochthons and in the absence of a Native Authority, the Banyamulenge are disadvantaged. As Tutsi, they are antagonized by the Hutu diaspora and militia groups, the indigenous Congolese and now, the Congolese state. Banyamulenge is not an ethnic identity. It was contextually created to secure indigenous rights to land. It is now an identity that unites the Tutsi diaspora, and I will even be so bold to state that this collective identity has become a means to survival and security amidst a militarized and hostile environment within South Kivu. The identity of the Banyamulenge has shifted in time and as Newbury (2009) asserts, broad identities

[6] Haut Conseil de la République/High Command of the Republic – transition parliament in Zaïre.

[7] Alliance des Forces Démocratiques pour la Libération.

emerge where ethnic identity and class identity overlap. They also emerge out of social and political necessity.

Conclusion

Mamdani speaks of political identities, whereas other scholars emphasize either ethnic or religious identities. I have asserted that the identity of the Banyamulenge is salient insofar as they are a combination of the ethnic, racial, religious, and cultural, and some of these elements have become politicized in conflict. This identity has formed through complex historical processes and continues to shift today. I chose not to categorize identity in strict terms, but to envision identity in its fluidity, subject to change and shift. These identities have proven to be malleable and subject to change in order to be contextually relevant. Today, the identities reflect positions in the ongoing conflict. Banyamulenge has become a term to identify the entire Tutsi diaspora that lives in the Eastern Congo.

I have examined not only how the collective identity of the Banyamulenge was entrenched in the land but how at different points in time they employed various strategies to claim land. Land as an identity marker for this group also intensifies their land claims to entrench their right to belong in South Kivu. The meaning of land shifted for this group from one generation to the next. I also demonstrated that collective identity is fluid and subject to shifts. To this day the Banyamulenge believe they rightfully belong in this place.

In this project, I set out to examine the dynamics that have led to conflict and have sustained conflict. I wanted to understand some of the elements that may have been overlooked or under-researched. The number of deaths and the extent of displacement provoked the need to query further. It is my hope that by putting forth a lens of land and identity, we can better address the deep-rooted nature of this conflict, and have a better understanding of conflicts in Africa. The conflict cannot be attributed to one cause. It is not the existence of natural resources, the power struggles, the religious or ethnic elements or the competition over land alone that have provoked, sustained and increased violence, but the interconnectedness of several factors that weave together to produce the crisis.

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Chapter 5
The Dynamics of the Gendered Division of Labour in Agro Forestry: A Case Study of Njelele Ward III in Gokwe Zimbabwe

Esther Gandari and Shepard Mutsau

Abstract Agriculture is the major livelihood in most developing countries. In Asia, 43 % of the workforce is engaged in agriculture, in Africa it is 60 %. It is also in the rural areas that poverty is most entrenched. 75 % of the poor live in rural areas and are directly or indirectly engaged in small scale agriculture. Development of small scale agriculture therefore has an enormous potential to contribute directly as well as indirectly to poverty alleviation through increased food security, income and economic growth at household as well as at national level. In small scale agriculture, family members provide most of the labour required and it is well known that in particular women play a major role in agricultural production; carrying out most of the work, and in ensuring food security. This is the case in Njelele ward (iii) which is situated in Gokwe rural community in Zimbabwe. However, women rarely have the formal rights to the land they work, the decision making power over resources or production decisions, nor access to information (in Africa, only 13 % of all farmers have access to agricultural information—and most of them are men). In spite of the major contribution of women to agricultural production, agriculture continues to be perceived as a male dominated sector: men have the land rights and the decision making power and the agricultural institutions (extension, research and boards) continue to be dominated by men. The paper suggests some strategies to redress the gender asymmetries in the agro forestry industry in Njelele.

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Introduction

Trees and forests are a direct source of cash income and a range of subsistence benefits for many communities in Zimbabwe and in Gokwe in particular in the form of woodland products. However there are gigantic differences in the benefits that accrue to men and women. In comparison to men, women are frequently disadvantaged in their access to forest resources and economic opportunities in the forest sector due to several gender-differentiated behavioural norms and social perception of women's roles. Segregation in tree and tree product ownership and tenure regimes as well as limited access to services such as extension and credit are some of them. However in Gokwe, history, time and mobility constrains as well as the traditional patriarchal problems of the burden of domestic and child-care affects the women and access to tree resources among many other issues. The variances between the two genders in access to and use of forest products and services result in acute gender disparities in access to and use of forest foods, fuel wood, and fodder for livestock, forest management; the marketing of forest and tree products; and participation in forest user groups (2013), This paper explores various gender dimensions underpinning agro forestry practices through a study of Njelele ward III in Gokwe area of Zimbabwe.

Republic of Zimbabwe Profile

Zimbabwe, a landlocked country is in south-central Africa. It is bordered by Botswana on the west, Zambia on the north, Mozambique on the east, and South Africa on the south. Its land area is 149,293 sq mi (386,669 sq km); total area: 150,804 sq mi (390,580 sq km). The estimated population of Zimbabwe is 12,619,600 (growth rate: 4.357 %); birth rate: 32.19/1,000; infant mortality rate: 28.23/1,000; life expectancy: 51.82; density per sq mi: 57. The languages used in Zimbabwe are English (official), Shona, Ndebele (Sindebele), numerous minor tribal dialects. Zimbabwe is African 98 % (Shona 82 %, Ndebele 14 %, other 2 %), mixed and Asian 1 % and whites less than 1 %. The religion is syncretic, part Christian, part indigenous beliefs, 50 %, Christian 25 %, indigenous beliefs 24 %, Muslim and other 1 %. The literacy rate: 91 % . The GDP/PPP (2011 est.) is estimated at : $6.474 billion; per capita $500 (2011 est.). The Real growth rate: 9.4 %. Inflation: 5.4 % (2011 est.). Unemployment: 95 %. Arable land: 8 %. Agriculture: corn, cotton, tobacco, wheat, coffee, sugarcane, peanuts; sheep, goats, pigs. Labor force: 3.856 million (2011); agriculture 66 %, services 24 %, industry 10 % (1996) (CSO, GoZ, 2013).

The History of Gokwe Settlement

Historically Gokwe area experienced limited cultivation by indigenous people and no ploughs were in use in 1907 (Native Commissioner Report 1908). However the Native commissioner made recommendations for the indigenous farmers to extend their tillage and use of advanced methods of ploughing only to meet the increasing demand for maize exports but were not in favour of indigenous farmers producing surplus maize as this would create undue competition and the problem of labour supply for them. It was also noted that natives had never been known to produce enough for their needs but supplemented with wild fruits, edible roots and game. Indigenous people to Goredema in Gokwe recall that agriculture was subordinate to hunting for men. Agricultural tasks were in contrast primarily the domain of women although men would initially cut trees, pile the dried timber around the stumps and burn it as a prelude to cultivation. The life of Gokwe people in terms of livelihood was then depended on cultivation of crops supplemented by hunting and woodland products. For sometime Gokwe district known as Sebungwe was a blind spot on the settler colonial horizon. The Morris Carter Commission allocated 3 % of its land for European occupation, 4/5 of Gokwe's land area was classified as unassigned. The 3 % allocated to white occupation meant that in the following years 1933 to 1950s indigenous people were forcibly removed and they moved further into the interior of Gokwe, which areas were sometimes described as uninhabitable, and at others uninhabited (Moyo 2001).

Land tenure changes resulted in colonial resettlements schemes so that between 1930 and 1975 over 120,000 families were resettled, mainly moving from southern provinces (Masvingo, Midlands and Matabeleland) and settling in North-western provinces of Gokwe. Private household settlement also occurred during the same period, Moyo (2001).

Back Ground to the Study Area

The Gokwe area was chosen because it offers some interesting dynamics in terms of efforts to increase agricultural productivity of farm family. The location of Njelele ward III near Mafungautsi forest land which is state land, and the history of Gokwe and Gokwe centre being the fastest growing growth point which received Town status recently offered us a unique view of how displacement of indigenous people and their struggle for survival played out at household level during the colonial era and beyond.

Njelele Ward III is one of the three wards that are in Chief Njelele's area. It is located in the south of the south-eastern corner of Mafungabusi (Mafungautsi) Forest Land. The area covers 20,000 hectares. The central point of the ward is around Gwanyika Secondary School which is situated about 35 km South East of Gokwe town. The western boundary of the ward is the main tarred Kwekwe to

Gokwe road which is also the eastern boundary of Mafungabusi Forest land, Agritex (1994). Gokwe agricultural production systems like all communal areas were traditionally oriented and designed towards subsistence farming. Food crops still dominate but other crops such as cotton and sunflower are being grown for commercial purposes together with the sale of wood products. These cash crops are male dominated, with women confined to food crops for the family.

Methodology

Data Collection

Data were collected from Njelele Ward (iii) in Gokwe which were randomly sampled after being stratified into three strata. Household interviews were conducted using an interview guide. Convenience sampling was used to select the respondents. Three focus group discussions were conducted. Direct observation and transact walks were used to see the density of the trees. Two key informant interviews were carried out. Interviews were carried out in the local language of the communities for respondents to understand. Secondary data was also used to gather data however this was against an acute literature gape in the study of agro-forestry in the context of Zimbabwe. This is not surprising given that there is no serious commitment by the government on agro-forestry in Zimbabwe.

Results

The study indicates that man dominate women in the Agro forestry practice in Njejele in Gokwe area in Zimbabwe. The agricultural constraints which hamper women from participation equally in agro forestry activities are direct vicissitudes of patriarchal gender expectations of women by Zimbabwean culture which has positioned men better than women in accessing and benefiting from the proceeds of agro forestry in Njelele.

The situation in Njelele where men dominate ownership of trees for the commercial purposes while women are more inclined to favour multipurpose indigenous tree species for subsistence such as those that provide food, fodder and fuel was also confirmed by results from a review of 104 studies of gender and agro forestry in Africa (Kiptot and Franzel 2011). In Njelele, the invisibility of women's work and knowledge arises from the gender bias which has a blind spot for realistic assessment of women's contributions.

Gendering Agro Forestry

Gender dynamics in the agro forestry is important because it underpins who has access and who benefits in the agro forestry practice. Interrelations between men and women, and the way in which cultural and social aspects influence these relations is key to how each gender benefits from agro forestry proceeds. Issues to do with marginalization, equality, subordination and equity in the context of agro forestry are gender charged. Much of the women's interaction with agro forestry is legislated by their socio-cultural obligations which are skewed towards men favouring agricultural and agro forestry sectors. Links between gender and the environment demonstrate that men and women have different experiences in agro forestry and therefore viewing agroforestry under a gender spectacle presents a unique opportunity taking into account the differences between women and men is necessary in the course of designing and implementing or understanding the gender dynamics in agro forestry (Quisumbing and Pandolfelli 2010).

In this study gender is conceptualized as relational in which women and men interaction is structured through norms and institutions . This relationship regulate how each gender interact with and handle issues to do with decision making, access to agro forestry resources , ownership the agro forestry inputs and outputs, in benefits associated with agro forestry proceeds. Moreover, gender is a highly relevant issue within the Agro forestry.

The agricultural systems in Njelele clearly meet specific needs of the household members. It is necessary to establish whether this was a function of the gender division of labour in relationship to roles and responsibilities and the linkages that this might have in the management and development of agro forestry in Zimbabwe. The study gives an insight into some of the gender differences on how and why local people plant, protect use and manage trees other than crops on their farms.

In this study, division of labour is conceptualized along gender, which is defined as the socially determined ideas and practices that define roles and activities deemed appropriate and acceptable for women and men (Reeves and Banden 2000: 2). The constraints on women's production are related to sexual or gender division of labour and the way cultural concepts and traditions define, what is work, under what relationships it is performed and who does it (Ostergaard 1992: 41). Other constraints are derived from women's access to resources and the effects of commoditization and development planning on the division of labour in the farming household. Still other constraints are based on the dual nature of women's economic roles within the farm family. The cultural basis of gender division of labour suggests that like other social and economic relations, it is subjected to change.

As societies undergo economic hardship, the nature of work changes and so does its distribution between men and women. But the existence of some sexual division of labour, some sex-typing of activities is a very persistent fact of human society. Feminists have long been interested in this persistent fact, arguing that to understand the sexual division of labour is crucial to any attempt to understand and to change the social position of woman as a whole. It is further argued in this study

that, in research and extension of agro forestry practices and technology, it is imperative that one makes an analysis of the division of labour at the household, farm family level.

This study looks at the functionality and constraints of gender in agro forestry activities at household level. The cultural factors and household survival strategies affecting land use choices, management, intensification of resources and labour allocation were analyzed. Based on gendered decision on a farm family, the agro forestry practices that are essential and responsive to the various needs of the members of the family were highlighted. Thus this study demonstrates how separate crop enterprises at the farm household level determine the type of agro forestry activity that the farmer adopts by gender. The study also demonstrates rural dependence on the wood products as both a function of division of labour at the household level and availability of supplies from the existing woodlands.

Factors that were observed and useful for examination of gender division of labour in agro forestry relate to the relationship between changing gender socio-economic conditions and changes in household composition and structure. Data was segregated by sex, type of marital union, joint female and male headed households with or without spouse partner present, type of marital union, legal and consensual or polygamous. Household composition included nuclear, joint extended two or three generation or other. It was established that male headed household consisted more than 90 % in Njelele Ward III. This is very high in comparison with the national average of 44 % for female headed household in rural areas (CSO 1992).

The rationale for employing desegregated household models in agro forestry research and project design is that men and women prefer different species of trees ((Fortmann and Rocheleau 1985; FAO 2013). Still there are many examples of women engaging in fruit, fuel and pole markets. Successful technologies can often have a negative effect on women as they to work longer hours.

Objective analysis of the situation of both genders is in recognizing that aside from child bearing, the roles played by men and women are not inherent in biological fact but are defined by society. To enable women to play a full apart in and benefit from agro forestry and extension development, one must have clear information about where and how women are situated in social, legal and economic terms (Ostergaard 1992). One holds the assumption that the division between men and women are somehow pre social and therefore fixed that the sexual division of labour is essentially the same for the human societies at all moments, in time. A scan at history proves this is not so. The division of labour is not immutable, it has the capacity to change and adapt to differing social and economic conditions. Biologically based explanations of the many and varied contributions that women make to society are not adequate, nor can they provide an adequate basis for action to promote gender equality for women in the process of development (Ostergaard 1992). As we focus on agro forestry technology and practices, we note challenges in economic environment and the changes of roles and responsibilities.

In taking a feminist approach in this study, we are interested in sexual division of labour in Gokwe societies because it appears to express, embody and furthermore to perpetuate female subordination in agro forestry and agricultural development in general. As McIntosh et al. (1993) plus it, "Female subordination centres on the relations between men and women within the social process as a whole and those relations work to the detriment of women". The method of argument in this approach is to try to show that because of the existence of sexual division of labour, the male head of household is able to extract greater profits from women's labour than would otherwise be the case. Gender subordination is thus embodied in the sexual division of labour. One of the key assumptions underlying gender and development analysis is that women and men, because they have different gender roles and power, they also have different gender interests.

We used the feminist approach in this study and look at how patriarchy perpetuates this division of labour . Patriarchy is used in this argument in its most general sense of the social dominance of the male. Defenders of this definition argue that if we wish to understand male dominance in society, we have to analyze social processes of the creation of two unequal genders and the family remains under capitalism the central site of that process hence the appropriateness of the term. We also know that the agricultural tasks in many societies become tightly tied to the concepts of gender identity. Gender typing is most rigid in areas crucial to social relations which have the relations of human reproduction and which generally incorporate male dominance and control of women's sexuality. In this case, its agricultural work which is the mainstay of economy in Gokwe and it is this sector that women have no control over.

Gokwe area is a patriarchal like the rest of Zimbabwe with the exception of the Tonga people who are matrilineal. Patriarchy is not simply control over women's labour in the sphere of reproduction rather it is control over their total labour, UN (1996). To understand the sexual division of labour one needs to therefore understand the intricacies of the family. The farm family for Polity (1994) is a scene of multilayered relationships folded over on each other. In comparison with other institutions, there is no other institution were relationships are so extended in time, so intensive in contact so dense in their interweaving of economics, emotion, power and resistance.

Polity (1994) observes, the way families work is partly a consequence of the husbands power to define their wives situations. The patriarchal pattern with young people subordinated to old and women subordinated to men reappears in a long series of sociological researches on families in different countries together with the ideologies of masculine authority that support it. Polity (1994) further points out that research into family power structure by and large has taken a conventional approach to the definition of power and its influence in decision making. The current work arrangements in the Gokwe area and elsewhere in Zimbabwe follow the andocentric model.

Mann, in Polity (1994: 175) suggests that gender relations present a third area in which a set of properties intersects with the orthodox categories in a structured way. Thus women are said to obtain their positions in the social stratification from the

dominant male of the household. Contained within patriarchy are two fundamental nuclei of stratification: The household family lineage and the dominance of the male gender,. Man is conferred trusteeship over power of resources from family origin. Persons, families, household lineages, gender classes and tribes all exist intact. None can be assigned primacy, each has relevance for and influences the shape of the others and the whole stratification is now gendered and gender is stratified.

The Household

Young (1984: 134) states that a common definition of household is a group of related individuals who share a home, share meals and pool their resources for the benefit of the group. A sectorial difficulty is said to arise because of a tendency to conflate or fuse separate concepts that of the household as a residential unit with that of the family as a social unit based on kinship, marriage and parenthood. Households vary greatly in structure and composition both within and between societies. In this study, household is used to mean:

> A system of resource allocation between individual who may or may not permanently reside together in which individual members share some goals benefits and resources are independent on some and in conflict on others (Young (1984).

Household unit as a unit of analysis is not a undifferentiated grouping of people with a common production and consumption function that is with shared and equal access and to resources and for benefits of production. Rather, households are themselves systems of resource allocations. Individuals are also members of the group through which they may gain access to productive resources or benefits and to which they may have obligations.

In Gokwe rural households often depend on a number of activities on and off—farm for survival. Farm management decisions in any enterprise are affected by the interplay of roles and resources of the individuals connected with that enterprise as investors, laborers and beneficiaries.

Fresco (1989) describes the farm household as the single most important component of the farming system:

> The farm household is defined as a group of usually related people who individually or jointly provide management labour, capital, land and other inputs for the production of crops and livestock, and who consume at least part of the farm produce (Balakrishnana 1992).

However the focus on household should not be allowed to obscure the fact that individual household members also belong to other groups to whom they have obligations from. This study has focused on household as a unit of analysis. The family and the household economy is viewed as central areas where men exercise their patriarchal power over women's labour (Hartmann 1981) and where gender stratification is produced and maintained.

Constraints to Women's Participation in Agro-Forestry in Njelele

The constraints to women's agricultural work can only be understood in the context of the relationships between agro forestry management and food production as well as the ecological issues pertaining to water, soil, forests and land use in food production and rural livelihoods systems.

Extension Services

In Njelele, there is a strong a strong bias towards men in the state run agricultural services. The history of this neglect of women farmers can be traced back to missionary and colonial times, unfortunately this has continued in post colonial period. The discrimination is found in women's lack of access to critical knowledge's and inputs which could help them improve their productivity. Compared to men, in Njelele women lack resources, services and facilities; they are under educated and overworked.

The boys in our family were given opportunity to go to school. There was no money for all of us. So I went as far as Grade Four, (a woman answering a question on education).

National commitments, specific government's policies and programs exacerbate rural differentiation among and within households. The emphasis on large farmers and affluent small holders in the orientation of rural infrastructure and extension services result in household differentiation as observed when men and women have separate accounts derived from different sources of income, that they do not fully share responsibilities.

Time Constrains

Women are often overburdened by the combination of productive work and domestic reproductive work especially in conditions of environmental degradation. Women in Njelele, were not exempted from this demise. In Njelele, the impact of fuel shortages on rural women is a burden not shared by men.

The Impact of Gendered Division of Labour on Agro Forestry Njelele

From time allocation data, spouses appear to share certain tasks usually planting and harvesting. The terms of labour trade between women and men are very unfavourable to women. This unequal exchange between men and women is an

illustration of the asymmetry of obligations and reciprocities between women and men in Njelele. Nevertheless, within the limits imposed upon them, women make some fine calculation for the development of rural households. It is in the cash cropping areas like Njelele in Gokwe, and other small scale farming areas in Zimbabwe that the image of women working as unpaid family labour is the greatest in evidence. Arson, suicide cases have been reported in which women drink pesticides as a form of protest against the men who would have squandered money from the crop sales on beer and sex workers. Reports indicate that there were over 150 suicide cases in Gokwe during the post-harvest dissatisfaction with a lack of control over the proceeds from farming The Herald (April, 7, 2010) Harare.

Promotion of cash crops, which are usually 'men's' crops at the expense of food crops which are usually 'women's' crops worsens food production as well as nutritional levels. The wife's labour is preferred to incurring a wages bill suggests something less that a free competitive labour market in the household. In fact, it is not unpaid family labour which is the lasting impression of gender concerns on men's dominating economic accounting units, but the gross asymmetry of obligations and returns as well as the marginalization of women's own accounting units. Women manage on their own account, but the gender terms of exchange of factors of production and of produce tend to be very unfavourable to them.

The form taken by the sexual division of labour is perpetually being transformed and created as economic and social changes occur. Thus the introduction of new agro forestry technology in farming brings new forms of division of labour by gender and therefore new forms of the hierarchy between men and women. New forms of division of labour by gender embody new forms of subordination of women and once established acquire momentum on their own. The fact that food cropping has remained in the hands of women, whilst cash cropping has remained in the hands of man is not simply a matter of coincidence. It was demonstrated that women were displaced in vlei gardens by men as soon as they become commercially profitable.

Once in place these new forms of sexual division are hard to challenge and women become supper exploitable workforce for capital. When there exists a material division between men and women which can be exploited by management, it reinforces women's social and economic subordination, however, much they may be based within the household or marriage relation, nevertheless become an embodied feature of the wider economic structure. In farming communities like Gokwe insecurity of tenure traps women within marriage based households. This partly is the justification for pursuing women's land rights.

Conflicts Within Households Over Women's Labour

It has been observed that as Zimbabwe moves towards the market system and as the bonds securing other unpaid family labour (e.g. sons) are destroyed, wives labour has become more important to the husband. This labour is rarely paid directly and it

can only be released by divorce. This is more visible as in the small scale farming areas and resettlement areas. When labour is scarce and costly labour displacing technologies are productive and efficient, but when labour is abundant, labour displacement is unproductive because it leads to poverty disposition and destruction of livelihoods. In the study because the nature of cropping, which is cash cropping, men have a tendency of marrying several wives as partly a way of solving the labour problems.

The evaluation of agro forestry and agricultural development projects in terms of their impact on rural women have found a set of linked problems which are central to why these agro forestry projects sometimes fail women. Development planners share difficulties in comprehending the economies of the partially self-provisioning farm enterprise and particularly the role played by women's work within it. As a result male farmers are targeted for inputs and extension work on crops grown only by women.

The status of women and children and the state of the environment has functioned as indicators of development. This exclusion is archived by rendering invisible two kinds of processing. Firstly nature, women's and children's contribution to the growth of the market economy is neglected and denied. Dominant economic theories are unable to encompass the majority in the world for women and children who are statistically invisible. Secondly, the negative impact of the economic goes largely unrecorded. Both these factors lead to impoverishment. Miles (1993: 75) argue that women are devalued first, because their work co-operates with nature's processes and second, that which satisfies needs and ensures sustenance is devalued.

Miles (1993: 84) maintain that every aspect of environmental destruction translates into severe threats to the life of future generations. Much has been written on the issue of sustainability as intergenerational equality, but what is often overlooked is that the issue of justice between sexes. Children cannot be put at the centre if mothers are meantime pushed beyond the margins of care and concern. Miles (1993) suggest that the survival and sustainability of livelihood is ultimately connected to the conservation and sustainable use of biological resource in all their diversity.

Intercropping for instance is dominantly a female agro forestry practice. Monocropping and crop uniformity however, undermines the diversity of biological systems which form the production systems as well as the livelihoods of people whose soil is associated with diverse and multiple-use systems of forestry agriculture and animal husbandry. Women's work and knowledge is central to biodiversity conservation and utilization both because they work between sections and because they perform multiple tasks. In agro forestry too, women's knowledge is crucial to the use of biomas for feed fertilizer. Knowledge of the feed value of different fodder species, the fuel value of firewood types and of food products and species is essential to agriculture related forestry in which women are predominantly active. In low input agriculture, fertility is transferred from forest and trees to the field by women's work either directly or via animals.

New agro-forestry technologies can undermine women's work and space. Forman (2002) confirm the well documented evidence that high varieties can increase women's work; the shift from local varieties and indigenous crop improvement strategies can also take away women's control over seeds and generic resources. Women have been seed custodians since time immemorial and their knowledge and skills should be the basis of all crop-investments strategies. In most cultures women have been the custodians of biodiversity (Fortmann and Rocheleau 1985; Campbell et al. 1991). They produce, reproduce, consume and conserve biodiversity in agriculture.

As already shown above central to agro-forestry is the tree and crop interface at rural household and both are central to meeting the requirement of both men and women. A tree function determines who has use rights to it. A major distribution is whether the tree has commercial or subsistence value; typically men have rights to commercial trees. People generally use the indigenous trees for firewood as many of these are slow growing and produce good quality of fuel wood. A rural agricultural population is heavily dependent on trees for many purposes. In the context of increasing social differentiation and land scarcity, those who have access to and control of the trees is an undisputed male right. This is a clear distinction and another illustration of the labour ownership dichotomy that has both gendered and class implications. Rural households, as exemplified in the Gokwe case, work to increase access to trees for firewood, fodder and many other purposes.

Use of Trees

Through the resulting division of labour, which is often very clear-cut, men and women develop and generate specialized knowledge of various activity areas. The knowledge and experience gained is, in turn, transmitted to group members responsible for similar activities in the future (Fernandez 1994). This includes specialized knowledge of the diverse species, and agro-forestry systems with which they work. In Njelele most women ask their husbands for permission when they wish to cut down a tree sell a goat or undertake any noticeable change on the farm, no matter how mundane. The comment below illustrates the point:

I cannot make a unilateral decision to cut down a tree in the yard. My husband will 'kill' me (*sometimes this is literally true*) from a woman who had survived domestic violence.

Strategies Being Adopted by Women in the Njelele Ward III in Resolving Labour Problems

With labour migration from the rural to urban areas women are increasingly talking over the management of rural household. One strategy for coping with these challenges in Njelele involves strengthening informal networks sometimes comprising kin, friends and colleagues or patrons and clients. Informal networks are based on reciprocal exchange of services and information therefore no exception of a direct return or other kinds of gifts. Rather, in Njelele, such reciprocal exchange is part of a relationship that maintains social ties and provides identity or support in times of need as well as new opportunities and benefits. This is based on the theory of reciprocity.

In Njelele, households invest in the social relationships that provide them with access to resources. Thus, they put effort into maintaining certain entitlements by virtue of kinship patron-client obligation or communal loyalty. Economic incentives may be as important in strengthening these relationships as they are increasing the productive capacity of resources which may include fodder, fuel, food, water, building materials and raw material for crafts as well as well as economic resources such as informal credit.

Networks have become key elements in individual and household strategies for survival and mobility in Njelele. In many rural communities similar to Njelele in Gokwe poor women are particularly dependent on access to the common and state lands for firewood and other forest products. Networks may enable their constituents to address community problems on ad hoc basis. In times of labour, bottlenecks are quite important as work parties are organized along these lines. These go down into tradition and history as piece-work or *maricho*.

In Njelele saving clubs like other women's clubs have emerged as another strategy for membership to formal groups and organizations. Associations may offer a means to deal with the economic system because they have an explicit structure sustained and visible membership for political leverage and a clear purpose and mandate. Strong and viable associations have emerged from traditional group activity originally focused on sharing agricultural labour and helping one another meet critical domestic needs.

Today, in Njelele, participation in these associations has become a key household strategy for meeting the challenges of increased involvement in the market and cash economy. The strategy can either diminish risk or create new opportunities for household members, especially women. It can help to meet goals for, maintenance, accumulation, or mobility. The specific purpose of such a strategy may be improved access to productive assets: land, labour and capital.

Purchase of agricultural inputs such as seeds and fertilizer has been facilitated and bought through these groups. Such groups may also generate exchange opportunities (both market and non market) involving cash, goods, services, information and or influence. The strategy may be used to obtain resources such as water and communal grazing land or to institutions and services such as schools and health

clinics. Households employ both informal networks and formal associations to enhance their access to productive resources and to exchange opportunities as well as to enjoy benefits of common property, or alternatively to share the use of private property.

Thus involvement in women's associations can be an important strategy to assist women and their households with access to land, water, cash labour and information, five resources on which most rural farmers face critical constraints. Collective labour is undertaken by women's associations largely for two reasons: to generate income for the group members and to provide needed labour inputs for their own farms at peak times in agricultural cycle. They may also contribute their labour to public works, such as feeder road construction or road or road repair upon request.

These patterns of cooperation, reciprocity, and exchange include both formal and informal associations or organizations to which women and men belong to enhance access to resources to public and private goods and services and to centers of power and decision making. Such patterns have implications not only for the access of individuals and households to resources but also for stratification within communities. Ultimately resources issues must be considered in gender based terms. Women manage farms whether men are present or not in a patriarchal system as in the majority of Zimbabwe. They do not have the same stake in the viability of the rural community. Yet, women do not often perceive themselves as possessing an organizational capacity to demand accountability from representatives such as policy makers, local government officials and extension officers who should be responsive to local needs and priorities.

At household level women have managed to mobilize critical resources such as labour through sheer ingenuity and developed a capacity to mobilize the limited resources. Rather, they focus on transforming daily practice and long term processes on the ground. Nevertheless, activities that provide access to cash and extra household labour and that enable women to participate in collective labour and in decisions about support for community infrastructure inevitably affects women's position in terms of decision making and resource allocation vis-à-vis other members of her household.

Within the household the gender based division of labour is becoming increasingly flexible as both men and women undertake productive and household responsibilities as the need arises. Control over resources however, is becoming less flexible. Men tend to control the resources, while women, in the case of land, work on it. Central to women's agricultural and overall livelihood responsibilities are the roles of women in managing resources in rural communities. Water, soil, grasslands, forests, livestock and wildlife are at the heart of Njelele's rural production systems. The effectiveness of their management affects local livelihood systems profoundly modes of cooperation and conflict over resources access and use provide a lens for understanding social institutions at the local level. They also facilitate exploration of fundamental communities and the state. These alliances and cleavages are in the form of connections of family, class, ethnicity, race, gender or religion.

The proliferation of women's clubs and groups has been one of the successful strategies for some of the women, in Development initiatives country wide. Women perceive group activities and membership as a way to increase their access to new technologies and new forms of capital investment. Under present circumstances, acquiring new lands is virtually impossible and men typically do not allow women a portion of their commercial crop earnings. Thus women have little income to spend on improving food crop production or to invest in other enterprises. Women have however managed to secure agricultural inputs in through these savings clubs.

In sum the women's groups increasingly provide forums for women to test and encourage their public voices within their respective communities. In this way, women are asserting themselves in the male dominated power structures as seen in their participation in the village development communities. The comment below illustrates the point:

Belonging to Shingainesu club has helped me a lot. My husband was very reluctant for me to go at first but since I have been bringing in money I have to watch out that he does not use all of it including the capitol, (a member of the club who benefitted).

Throughout the course of this research, it was observed that there are pressures on local residents seeking substance and cash, especially in Masawi vidco. These pressures have led to agricultural intensification as well as to frantic search for income opportunities within and beyond the community. There are several consequences, First food crops, which women traditionally managed are increasingly coming under the sphere of male regulation and control. Second, while demands on women's labour have increased many women are experiencing declining independence and authority in the productive sphere and decreased control over resources.

Many young women witness the erosion of their social networks which are tied to land and resource access as land is carved into smaller and smaller parcels to which they do not have access. Some young women from poorer households realize they will never obtain land or acquire marketable job skills. Instead, they resort to selling bananas at the cross roads or travelling to Gokwe centre. Sometimes they choose early marriages and pregnancy or are forced into prostitution at the Gokwe centre. The Gokwe findings offer remarkable testimony to the Boserup thesis (1970) that population increase is compatible with environmental recovery provided that market developments make farming profitable.

Conclusion

The study on gender and agro forestry in Njelele mirrors a global situation in agro forestry which is conditioned by vicissitudes of gender asymmetries. The study revealed that in Njelele just as in the other parts of the world, forestry and agro forestry systems are not gender-neutral. Women are frequently disadvantaged, for a range of interrelated cultural, socio-economic and institutional reasons, in their access to and control over forest resources and in the availability of economic

opportunities as compared to man. The study in Njelele also confirm the regional results by FAO (2013) that forestry tenure, that is the ownership and use rights of trees is strongly differentiated along the gender lines, and men usually have overall authority over high values tree products.

Understanding gender in particular contexts enables us to find effective equitable ways of managing our natural resources for building productive rural livelihood systems. What is required is for policy linkage between women's roles as food producers, women's roles in managing environment and national food security thereby enabling women to achieve effective participation and performance in national development. Evidence suggest that consideration of local resource management as it bears on food production and rural livelihood systems, must incorporate all these variables into the analytical framework. Rural households are vulnerable in cross cutting systems of power relations, particularly those of class and gender. Women bear responsibility for the viability of those domains coupled with the broader political and socio-economic arenas. In conclusion agro-forestry research and extension development involves encounters between men and women representing different interests and supported by different resources.

In Njelele, the invisibility of women's work and knowledge arise from the gender bias which has a blind spot for realistic assessment of women's contributions. It is also rooted in the sectoral fragmented and reductionist approach to development which treats forests, livestock and crops as independent of each other.

Given the gender based division of labour in Njelele, the designation of food crops for household consumption of a female responsibility, and lack of cash for purchasing labour inputs, there is a shortage of labour at critical time in food crop production. In Njelele, males generally do not tend crops for domestic consumption. Their attitudes reflect among other things, changes in both generational and gender perspectives on rights, obligations, and accepted behavior patterns.

Different agro-forestry practices categories and systems were examined in Njelele. Certain linkages with the sexual division of labour like self-provisioning of food crops by women are resistant to change. This is with respect to labour investment by women in both food cropping and cash cropping, which is largely unrewarded.

Recommendations

This study recommends that new and sustainable pathways to empower women and strive for gender equity in agroforestry should be pursued vigorously. Empowering women in the forest sector has a potential for creating significant development opportunities for women and can generate important spill-over benefits for their households and communities. Efforts to enhance women's participation in forest-related institutions should be strengthened because women can help to maximize synergies between the forest sector and food security for the benefit of all.

Thus closing the gender gap in agro forestry management is a *sine qua non* for agro forestry development as well and sustainable community development . This is because it puts both genders on an equal footing in participating in development though agro forestry. The current situation in Njelele where men dominate ownership of trees for the commercial purposes while women are more inclined to favour multipurpose indigenous tree species for subsistence such as those that provide food, fodder and fuel was also confirmed by results from a review of 104 studies of gender and agro forestry in Africa. (Kiptot and Franzel, 2011) This situation is an antithesis of both agroforestry and gender development in Africa. There is an urgent need to redress this status quo.

Calls for policies that ensure gender equality in decision making and control over forest, trees and agro forestry resources and relevant value chains that result in increased incomes and benefits for women remain necessary. Gender equity in agro forestry may be achieved by engulfing a *hodgepodge* of mechanisms which may include but not limited to (1) designing and implementing strategies for gender – equitable distribution of forest and tree benefits in Njelele, including the distribution of incomes between genders (2) designing organizational incentives and strategies for enhancing gender –responsive policy implementation in agro forestry industry (3) identifying cultural taboos based on both patriarchal and matriarchal philosophies than inhibit equal gender participation in agro forestry and formulating strategies that inhibit them. Likewise, it is also important to identify those cultural taboos that promote gender equity in agro forestry participation and promote them. (4) it is also important to identify practices influencing the use and management of forests and trees, including tree planting and the adoption of innovative technologies, and (5) rising women's participation power along the value chains of forest and tree products, and their control of incomes and related benefits as well.

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Part II
Selected Issues in Ghana

Chapter 6
Beyond Panaceas in Land Tenure Systems in Ghana: Insights from Resilience and Adaptive Governance of Social-Ecological Systems

Kofi Akamani

Abstract Land tenure basically refers to the system of formal and informal institutions governing people's relationship with one another and with the land and natural resources on which they depend. Historically, customary land tenure systems that rely on traditional institutions for managing access to communally owned lands have been the dominant medium for land allocation in Ghana and most of sub-Saharan Africa. For several decades, tenure reforms have focused on transforming the African land tenure system from the customary system through land nationalization and privatization. Among other issues, the goals have been to promote tenure security, economic efficiency, and sustainable resource management. Thus far, these tenure reforms have yielded mixed results. Current problems include bottlenecks in land administration, weakening of traditional institutions, and increasing marginalization and landlessness among vulnerable groups. Based on insights from the literature on resilience in social-ecological systems, this chapter highlights the need to move beyond the search for panaceas in land policy toward institutional frameworks that can mediate the complex and dynamic relationships between people and land. The chapter proposes adaptive governance as an institutional framework that can promote an integrated approach to managing land and other natural resources with the aim of building the resilience of communities and regions against the impacts of various drivers of change.

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Introduction

Across several fields of resource management, growing recognition of the complex and dynamic relationship between social and ecological systems has led to a rethinking of conservation policies. The conventional paradigm of resource management, characterized by the view of humans as distinct from nature, and the belief in the predictability of nature is giving way to a more promising alternative paradigm that views social and ecological systems as complex adaptive social-ecological systems (Folke et al. 2002; Redman et al. 2004). A major priority in the sustainable management of complex social-ecological systems is to build their resilience, defined as the ability of a system to respond to disturbances while retaining its structure, functions, identity, and feedbacks (Folke et al. 2010).

Earlier applications of complexity and resilience thinking in resource management could be seen in the concept of adaptive management. Allen et al. (2011) assert that "(a)daptive management is an approach to natural resource management that emphasizes learning through management based on the philosophy that knowledge is incomplete and much of what we think we know is actually wrong, but despite uncertainty managers and policy makers must act" (p. 1339). Through this structured and continuous decision-making process, management generates new knowledge, which is subsequently used to inform future management decisions (Williams 2011). Adaptive management is, however, a scientific resource management approach and requires an appropriate social and institutional context in order to be successful (Cosens and Williams 2012).

These emerging insights on resilience of complex social-ecological systems are particularly relevant for the sustainable management of common pool resources (Ostrom 2009). Berkes et al. (1989: 91) define common pool resources as "a class of resources for which exclusion is difficult and joint use involves subtractability." Common pool resources may be managed under different types of property rights regimes, such as open access, communal property, private property, and state property (Ostrom et al. 1999). Research on the commons has focused on co-management as a promising institutional framework for integrating the benefits of the different types of property rights regimes (Acheson 2006). Co-management refers to institutional arrangements that allow for the sharing of rights and responsibilities between state representatives and non-state actors, such as local communities and the private sector (Yandle 2003). However, the co-management concept does not adequately recognize complexity and the need for learning (Berkes 2009).

The integration of the literature on common pool resources and social-ecological systems research in recent years has triggered the emergence of innovative resource management institutions, such as adaptive co-management (Armitage et al. 2009) and adaptive governance (Dietz et al. 2003). Olsson et al. (2004) define adaptive co-management as "flexible community-based systems of resource management tailored to specific places and situations and supported by, and working with, various organizations at different levels" (p. 75). Adaptive co-management integrates perspectives from co-management and adaptive management, giving rise to a

new institutional mechanism that suits the needs of resource users than adaptive management, and places more emphasis on the capacity for learning and adaptation than co-management (Berkes 2009). The concept of adaptive governance expands the scope of adaptive co-management by focusing on the broader social and institutional context across multiple scales within which ecosystem management occurs (Folke et al. 2005). Adaptive governance connects individuals, institutions and organizations at multiple levels in responding to ecosystem dynamics (Folke et al. 2011), thereby providing an appropriate framework for the successful implementation of adaptive co-management and adaptive management (Gunderson and Light 2006; Olsson et al. 2006). These innovative concepts are receiving application in research and policy on various common pool resources, such as forest resources (Colfer 2005) and water resources (Akamani and Wilson 2011). The application of these concepts on resilience of social-ecological systems to land issues is, however, rare in the literature.

The aim of this chapter is to employ insights from resilience and social-ecological systems research in analyzing trends and future trajectories in land tenure policies in sub-Saharan Africa with a special focus on Ghana. Just like forests and water resources, land can be conceptualized as a common pool resource and a complex social-ecological system. Yet policies and research on land have thus far, failed to explicitly recognize the complex and dynamic relationships between people and land. Past policies based on static and linear assumptions have failed to reflect the practical realities on the ground (Cotula 2007; Yaro 2010). Based on lessons learned from the failures of past tenure reforms, there is growing appreciation of the complexity of the relationship between people and land (Mitchell 2011), and the need to move beyond panaceas or "simplistic one-size-fits-all solutions" (Cotula 2007: 3) towards a more flexible and dynamic approach to land tenure policy (Adams et al. 1999; Kasanga and Kotey 2001). Yet the field of land tenure research and policy lacks the analytical frameworks for making sense of this complexity (USAID 2010). The chapter illustrates the promise of concepts on resilience and adaptive governance as guiding principles for understanding and informing land policies in a future of unpredictability. The next section of the paper will review trends in land tenure reforms with a focus on Ghana. Next, the concepts on resilience and adaptive governance will be presented. The following section will identify and discuss the policy implications of applying adaptive governance to land policy. Brief concluding comments will then be presented in the final section. The paper is based on a review of documents, including academic publications and policy reports.

Evolving Land Tenure Systems

Land tenure refers to the institutions or system of rules, both formal and informal, that shape the ownership and use of land and natural resources. Tenure regimes mediate the interactions between members of a given society and their relationship

with the land (Asabere 1994). Like forests and water resources, land is a common pool resource that can be held under different property rights regimes: open access, private property, state property, and communal property (Mitchell 2011). Tenure reforms refer to "planned change in the terms and conditions on which land is held, used and transacted" (Clover and Eriksen 2009: 53). Since the colonial era, tenure reforms have been implemented across much of sub-Saharan Africa aimed at replacing the customary tenure system with Western property rights through land nationalization and privatization (Lastarria-Cornhiel 1997; Cotula 2007). The rationale for these tenure reforms includes enhancing tenure security, social equity, efficiency, economic growth and sustainable resource management (Clover and Eriksen 2009; Toulmin 2009). These alternative tenure regimes are discussed below.

Customary Tenure

Customary tenure is defined as "a set of rules and norms that govern community allocation, use, access and transfer of land and other natural resources" (USAID 2011: 1). A common feature of these tenure systems is that land is owned by the community and managed by community institutions (Lastarria-Cornhiel 1997). Thus, under customary tenure, land is managed as communal property (Yaro 2010; Damnyag et al. 2012). It is, however, important to note that customary tenure systems are marked by significant variations (Cotula 2007). In Ghana, there are significant variations in how these lands under customary tenure are managed between the northern and southern part of the country. One difference in customary tenure systems in Ghana is the source of allodial or fundamental land rights. In most parts of the country, allodial rights to land are held by chiefs who represent community traditional governance institutions known as "stools" in southern Ghana and "skins" in northern Ghana. In the Upper East and Upper West regions, allodial rights are held by the "tendamba" who represent the first settlers of the land (Kasanga and Kotey 2001; Yaro 2010). In other areas, allodial rights are held by families (Kasanga et al. 1996). Beside the source of allodial rights, the system of inheritance also varies in Ghana. Inheritance of customary land in the northern part of Ghana is governed by the patrilineal system whereas most of the southern part is governed by the matrilineal system (Kasanga and Kotey 2001).

A key advantage that has been associated with customary tenure systems is their ability to enhance equitable and secure access to land and natural resources by members of the land-owning community (Meinzen-Dick et al. 1997). While access to land may be mediated by a range of contextual factors, including gender, age, ethnicity, and membership in the land-owning community, customary tenure systems generally offer a complex mix of different types of rights that enables them to address the needs of different groups, such as men, women, and migrants (Lastarria-Cornhiel 1997). This complexity and diversity of rights enhances the flexibility and resilience of customary systems to adapt to changing patterns of resource

availability and demands over time (USAID 2011). In Ghana, a diversity of rights exists under customary tenure. Members of a given stool or skin hold the 'customary freehold' through which they have access rights to customary lands. Outsiders, such as migrant farmers can also access customary lands for a fixed period through leasehold agreements or sharecropping (Damnyag et al. 2012). Given that rain fed agriculture is widely practiced in Ghana, Kasanga and Kotey (2001) assert that sharecropping arrangements may offer the advantage of spreading risks associated with crop failure.

In spite of their numerous benefits, customary tenure systems have been under attack since the colonial era. Pressure on customary tenure systems have intensified in recent decades due to the simultaneous operation of multiple drivers of change across multiple scales, including population growth, urbanization, political and economic reforms, and the effects of globalization (Cotula and Neves 2007; Yaro 2010). A major critique of customary tenure systems that has been used to justify tenure reforms is that the lack of tenure security in customary tenure systems is a disincentive for investments for land improvement and agricultural productivity (Lastarria-Cornhiel 1997; Kabba and Li 2011). Customarily tenure systems have also been critiqued for their potential to marginalize certain segments of society, including women and outsiders (Kabba and Li 2011). In Ghana, the capacity and willingness of traditional authorities to manage land under customary tenure in an equitable and sustainable manner using transparent and accountable decision-making processes is increasingly being questioned, particularly in the rapidly urbanizing parts of the country. Recent studies across the northern and southern parts of the country indicate shortfalls in the customary tenure system, such as loss of tenure security due to increasing commoditization of communal lands, capture of benefits from land transactions by chiefs and other local elite, as well as lack of transparency, participation and accountability in customary land management (Ubink 2008; Yaro 2010). In spite of these challenges, some customary tenure systems, particularly those in the rural parts of the country, have remained resilient and continue to provide critical land management functions (Kasanga and Kotey 2001).

Nationalization

Wily (2011) contends that since the colonial era governments in Africa have been the major appropriators of lands formerly under customary tenure through the use of various national land laws. In Ghana, several laws have been established for transferring land rights from traditional landholders to the state. A major legislation for the compulsory acquisition of public lands is the State Land Act, 1962 (Act 125) which grants the state the authority to acquire and maintain land for the common good. The Administration of Lands Act, 1962 (Act 123) also allows for the vesting of customary lands in the state in trust for the landowning group. Other legislation for the transfer of interest in land to the state includes the Statutory Wayleaves Act,

1963, and the Public Conveyancing Act, 1965 (Act 302). All public lands are administered by the Lands Commission in accordance with the provisions of the Lands Commission Act, 1993.

While state lands have helped in the provision of land for the development of critical infrastructure, especially in urban areas (Kasanga and Kotey 2001), land nationalization comes with several challenges. One major critique of nationalization is that the conversion of customary lands into state lands is likely to lead to displacement and landlessness among rural resource-dependent populations, especially the poor and less politically powerful (Kasanga and Kotey 2001; Toulmin 2009). Furthermore, the confiscation of land is often accompanied by delayed and inadequate compensations to the victims (Yaro 2010). Kasanga et al. (1996) have noted that about one-third of the land area of Accra has been compulsorily acquired by government. In some cases, compensation for the original owners has either not been paid or is too low. Additionally, decision-making and implementation procedures for the management of state lands are often characterized by the lack of public participation, resulting in conflict between the traditional institutions and state agencies (Kasanga and Kotey 2001; USAID 2011). These problems are further compounded by the inadequate institutional capacity of state land management agencies, as well as the poor coordination among the different agencies involved in the land administration process (Kasanga and Kotey 2001).

Privatization

Policies on the privatization of land are increasingly being adopted as responses to the perceived shortfalls of the customary tenure system, as well as the adverse effects of land confiscation by central governments. Privatization involves two types of land transfers: one is the conversion of land under customary tenure to private property through land titling and registration programs; the other is the transfer of land from state property to individuals or groups (Meinzen-Dick et al. 1997). The justifications for privatization are manifold, including the stimulation of long term investments through enhanced tenure security, consolidation and efficient use of land, and enhanced access to credit (Cotula et al. 2004; Toulmin 2009).

Several shortfalls have been identified in land privatization programs. First, land title registration programs are often too expensive, involve too many different agencies, and entail a complex procedure which effectively constrains the poor and vulnerable from accessing such institutions (Toulmin 2009). In Ghana, for instance, the Compulsory Land Title Registration Law, 1986 (PNDCL 152) requires the registration of all interests in land. However, given the complexity of the process, it is usually the resourceful and politically connected who are able to acquire land using this process (Kasanga and Kotey 2001). Second, land title registration has been argued as inadequate for promoting tenure security (Clover and Eriksen 2009). Privatization of land often results in competing claims where

politically powerful elite attempt to control land over which they had no previous rights. Thus, the security of access to land for the vulnerable offered under the customary system may be lost through titling (Lastarria-Cornhiel 1997). Third, studies on the effect of land titling on investments, productivity and sustainable resource use have yielded mixed results. For instance, in a study on the relationship between forest tenure systems and sustainable forest management in Ghana, Owuba et al. (2001) found no correlation between tenure security and farmers adoption of sustainable forest management practices. Zhang and Owiredu (2007) also examined the relationships among land tenure, market incentives and plantation establishment in Ghana. They found that in addition to land ownership, several other socio-economic and institutional factors influenced farmers' establishment of forest plantations. These studies suggest that the outcomes of title registration are not easily predictable. Finally, privatization can result in less resilient land tenure systems. Titling programs may reduce the diversity and flexibility of customary institutions, thereby transforming them into static and uniform institutions that are less likely to be able to successfully adapt to change over time (Meinzen-Dick et al. 1997; USAID 2011). These challenges call for a rethinking of conventional approaches to land tenure policy using insights from social-ecological resilience.

Resilience and Adaptive Governance

The concept of resilience (Holling 1973), with its origins in the field of applied ecology, is increasingly gaining widespread recognition as a framework for enhancing sustainable human-environment interactions in a broad range of resource management arenas. A foundational assumption of the resilience perspective is that social and ecological systems are not distinct from each other (Redman et al. 2004). Rather, they are posited as intricately interconnected with each other in a co-evolving fashion across multiple spatial and temporal scales (Folke 2007). Such complex social-ecological systems are not static, but are constantly responding to various forces of abrupt and gradual changes (Liu et al. 2007). In all, social-ecological systems exhibit the attributes of complex adaptive systems, including cross-scale interactions, non-linear relationships, emergent properties, surprise and uncertainty (Berkes 2004; Liu et al. 2007). According to Folke et al. (2002), resilient social-ecological systems have the ability to cope, adapt and transform in response to various drivers of change without compromising their critical attributes. Coping mechanisms are short-term, emergency responses to livelihood threats (Berkes and Jolly 2001). Adaptive strategies are more broad-based and long-term changes and adjustments, such as changes in institutions aimed at maintaining livelihoods in the face of internal and external drivers of change (Berkes and Jolly 2001; Folke et al. 2010). Unlike coping and adaptation, transformative changes are those that involve the crossing of social or ecological thresholds, resulting in a fundamentally different social-ecological system when the existing situation is undesirable (Walker et al. 2004). Thus, resilience offers an

understanding of the dynamics of change and stability in complex systems (Folke et al. 2010, 2011). The process of coping, adaptation and transformation can result in favorable or undesirable outcomes (Gunderson and Light 2006; Akamani 2012). A key challenge for enhancing global sustainability is the design of governance institutions that can avoid transitions towards undesirable social-ecological systems (Folke et al. 2011).

The social-ecological resilience perspective presents important challenges to conventional resource management approaches that are characterized by top-down institutional frameworks and over-reliance on reductionist science (Nelson et al. 2008). Such resource management regimes have a limited ability for coping, adaptation and transformation (Armitage et al. 2009). A more promising alternative is adaptive governance, a concept that is informed by ideas from commons research and social-ecological systems research (Armitage 2008). According to Gunderson and Light (2006), adaptive governance aims at linking science to policy and decision-making in order to prepare social-ecological systems for change. Adaptive governance relies on multi-level institutions to connect individuals and organizations across multiple levels of scale within a polycentric institutional structure (Olsson et al. 2006). According to Ostrom (2010: 552), "Polycentric systems are characterized by multiple governing authorities at differing scales rather than a monocentric unit." Such an institutional framework provides opportunities for employing different types of institutions and knowledge systems in decision-making and implementation processes (Nelson et al. 2008; Rijke et al. 2013). Polycentric institutional frameworks also offer opportunities for experimentation of rules at various scales, thereby enhancing the capacity of the system for learning and adapting to change (Folke et al. 2011). Thus, adaptive management is an integral component of adaptive governance. According to Gunderson and Light (2006), adaptive governance provides the institutional framework within which adaptive management of natural resources occurs. Both adaptive management and adaptive governance are critical for resilience-building in social-ecological systems.

Applying Adaptive Governance to Land Tenure Policy

This section identifies and discusses a handful of ways in which adaptive governance can inform land tenure policies in a future of unpredictable change and surprise.

Recognizing Complexity

At the philosophical level, the lack of recognition of the complex relationships between people and land, and the role of land tenure systems in mediating these

complex relationships appears to be at the root of the failures in tenure reforms. Conventional land policies often adopt linear conceptualizations of land management problems that do not reflect the complex reality on the ground (Cotula 2007). These policies reflect assumptions of the balance of nature paradigm that held the view that social and ecological systems are distinct from each other, and that nature is controllable and predictable (Folke et al. 2002; Berkes 2007). Contrary to these assumptions, researchers on land issues are increasingly recognizing that land tenure systems are complex, diverse, dynamic, and evolve in a path-dependent manner, influenced by their historical context (Meinzen-Dick et al. 1997; Toulmin 2009; USAID 2011). These illustrate the characteristics of complex social-ecological systems. As complex social-ecological systems, land tenure regimes exist in different types, involve multiple actors, and are influenced by multiple drivers of change across multiple scales from the local to the global. The dynamic interactions among these different components of the system give rise to uncertainties and unpredictable outcomes. Importantly, the cross-scale interactions among the multiple drivers of change could potentially lead to transformations toward vulnerable and undesirable trajectories. Recognition of these characteristics calls for a rethinking of the focus of tenure reforms from static rules aimed at promoting efficiency to flexible rules that focus on learning and building the capacity to adapt to change across scales (USAID 2011). Adaptive governance provides the conceptual basis for making sense of the complexity, as well as informing policies that promote resilience across scales for navigating gradual and abrupt changes.

Integrated Resource Management

Conventional resource management often tends to be sector-based by focusing on optimizing benefits from selected resources (Cosens 2013). This has often resulted in unintended ecological consequences. In response to these shortfalls, ecosystem-based management has emerged to promote an integrated approach to managing the different components of ecosystems (such as land, forests and water resources) across multiple spatial and temporal scales (Endter-Wada and Blahna 2011). Ecosystem management embraces the view of humans as an integral part of nature and attempts to balance social, economic and ecological considerations at the bioregional level by promoting an adaptive and collaborative approach to decision-making (Endter-Wada et al. 1998). Adaptive governance provides an appropriate institutional framework that supports ecosystem-based resource management (Folke et al. 2005, 2011).

Land tenure reforms are often characterized by sector-specific policies that focus on land in isolation from other related arenas of resource management. There have been calls for policies to integrate land issues into other resource management concerns in order to address broader development challenges, such as climate change adaptation and poverty reduction (Cotula et al. 2004; FAO 2008). As Cotula

et al. (2004: 28) have noted, "(t)he land issue cannot be seen in isolation from broader agricultural, economic and institutional policy issues" Applying adaptive governance to land tenure reforms will therefore promote an integrated approach to managing land, forests and water resources across multiple scales with the aim of enhancing sustainable livelihoods while preserving the resilience of the social-ecological system. Appropriate institutions will be required to facilitate the multi-sectoral planning processes and inter-agency coordination entailed in integrated resource management. In Ghana, progress is being made toward an integrated approach to land management. The adoption of the comprehensive National Land Policy in 1999 aimed at improving land management in order to achieve broader social goals, such as economic development, poverty reduction, and social stability. The implementation of the Land Administration Project (LAP), initiated in 2003 with funding from major international donors also aims at promoting fair, effective, efficient and decentralized land administration systems that enhance security of tenure (Ministry of Land and Natural Resources 2011). Although these goals do not adequately reflect the assumptions of ecosystem-based resource management, they indicate a step toward integration of land issues with other sectors.

Diverse, Nested Institutions

Managing social-ecological resilience requires institutions that are complex, diverse and redundant (Dietz et al. 2003). Adaptive governance relies on different types of semi-autonomous institutions that are nested across multiple scales within a polycentric institutional framework (Olsson et al. 2006). Nested multi-level institutions provide a framework for allocating responsibilities at appropriate scales (Marshall 2008), thereby enhancing the fit between institutions and the social and ecological challenges they are designed to address (Folke et al. 2007). Adaptive governance also relies on different types of institutions, such as state institutions, market-based institutions, and community institutions. The diversity of institutions reduces the risks associated with the use of a single type of institution and enhances the likelihood of success in the enforcement of rules (Dietz et al. 2003; Akamani and Wilson 2011).

The erosion of complex customary tenure systems through the application of uniform rules at the national level has been critiqued (Cotula and Cisse 2007). There have therefore been calls for hybrid or plural institutional frameworks that can accommodate the different types of tenure regimes (Cotula et al. 2004; USAID 2011). Applying adaptive governance to land tenure policy will call for a collaborative and participatory approach to managing land that harmonizes the role of customary institutions, private land ownership, and policies on land nationalization. This can enhance transparency and accountability in land management, as well as offer opportunities for enhancing the legitimate role of traditional knowledge and traditional institutions in land management. Progress towards hybridization of land tenure systems is already occurring as many countries across Africa are initiating

policies that recognize all forms of land rights and protect customary tenure (Cotula 2007). In Ghana, a plural land tenure system already exists (Asabere 1994), although past policies have failed to harmonize the different land management systems, thus resulting in conflicts (Kasanga and Kotey 2001). Ubink (2008) has noted that the adoption the LAP in Ghana reflects current thinking on the need to build on the strengths of customary tenure systems. Under LAP, Customary Land Secretariats (CLS) are being established to build local capacities for decentralized land administration. Effective implementation of these initiatives could nurture diversity in Ghana's land tenure system and enhance harmony in the interactions among the different actors across different levels of the jurisdictional scale.

Conflict Management

A critical feature of the decision-making process that links science to policy in adaptive governance is analytic deliberation. Dietz et al. (2003) refer to analytic deliberation as a "well-structured dialogue involving scientists, resource users, and interested publics, and informed by analysis of key information about environmental and human-environment systems" (p. 1910). By creating a forum for regular interactions among scientists, decision-makers and other stakeholders, analytic deliberation promotes transparency and participation in decision-making (Allen et al. 2011; Akamani and Wilson 2011). Analytic deliberation also enhances the sharing of information, as well as building trust for collective action (Dietz et al. 2003; Corfee-Morlot et al. 2011). These attributes make analytic deliberation an effective mechanism for conflict management (Balint et al. 2011).

Various pressures on customary tenure, including tenure reforms often result in the escalation of conflicts due to a breakdown in traditional dispute resolution mechanisms as well as tensions between customary and statutory mechanisms (Cotula et al. 2004; USAID 2011). There is therefore a critical need for land tenure conflict resolution mechanisms, particularly those that involve the role of local communities and their social capital networks (Mitchell 2011). Through the process of analytic deliberation, adaptive governance can contribute to alternative conflict management by offering opportunities for interactions among the various actors and institutions involved in the land management process. Unlike the adversarial nature of legal systems, alternative conflict management seeks to address natural resource conflicts through the involvement of the interested parties in joint decision-making (Matiru 2000; Mitchell 2011). Also, through the process of analytic deliberation, the experience and knowledge of customary institutions in the management of land disputes can be utilized to complement the role of the courts. In Ghana, for instance, the heavy reliance on courts as a medium for resolving land disputes has led to a backlog of unresolved cases due to the limited capacity and inefficient procedures of the courts (Kasanga and Kotey 2001). The promotion of community level dispute resolution mechanisms through the LAP has led to the settlement of some of these land conflicts (Awuah-Nyamekye and Sarfo-Mensah

2011). Other countries, such as Mali, Niger and Tanzania have also taken explicit steps to involve local institutions in managing land conflicts (Cotula et al. 2004).

Conclusion

This paper has explored on-going efforts in the search for institutions for promoting secure land rights that can contribute to sustainable and equitable development. The review has shown that each of the alternative land tenure regimes has its own inherent strengths and weaknesses. As such, none can serve as a panacea in addressing land management challenges. It has also been argued that tenure reforms that are biased in favor of formal rights implemented at the state level have largely failed due to the neglect of the complex and dynamic nature of people's relationship with land. Drawing from insights from social-ecological resilience the paper has illustrated the utility of adaptive governance as a framework for harmonizing the role of the different types of tenure regimes and promoting an integrated approach to managing land and other natural resources in a way that promotes participation, conflict management, and resilience-building. It is encouraging to note that Ghana and other African countries are already undertaking policy reforms that could provide opportunities for the transition toward adaptive governance of land and natural resources. Future research needs to closely examine the key features of these on-going policy reforms, as well as the challenges and opportunities they present for the transition toward adaptive land governance.

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Chapter 7
Neoliberalism and Housing Provision in Accra, Ghana: The Illogic of an Over-Liberalised Housing Market

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Abstract The economic hardships experienced by African countries in the late 1970s forced many of them to fall on the International Monetary Fund (IMF) and the World Bank for financial relief. The two institutions' reaction in almost all cases was to impose structural adjustment programmes (SAP) on those countries in an attempt to stabilize and grow their economies through market forces, with little intervention from the state. Ghana became an unwilling apostle from 1983 when it implemented various rounds of the programme because of the deplorable state of its economy. The country became so committed to structural adjustment that it was portrayed as an extraordinary example of the efficacy of neo-liberal policies in restructuring broken economies. Primary among the benefits to the country was economic liberalization and a corresponding increase in domestic and foreign private investments, especially in the housing industry. Since then, Accra, the national capital, has faced an overproduction of housing for high-income earners thus leading to a dramatic rise of gated communities. On the other hand however, there has been virtually no production of housing for low-income earners, thus exacerbating their continued dependence on the informal sector for housing provision in Accra. With this stark difference, the paper argues that the neoliberal policies of the 1980s have rendered government irrelevant in the housing market, especially in the provision of housing for low income earners, and for that reason accelerated the development of poor housing and slums in the city of Accra.

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Introduction

The provision of affordable and adequate housing has reached crisis point in the majority of countries in Africa. This shortage is evident in the large proportion of people who live and operate in the informal sector, a convenient euphemism for slums or slum-like conditions. International Housing Coalition (2007) estimates that, only 10 % of sub-Sahara Africa's population live in the formal sector and the well-organised housing that goes with it. In the developing world generally as Davis (2006: 17) points out, barely 20 % of new housing requirements are met by the 'formal housing markets'. Inevitably, he argues, people resort to both legal and illegal means to provide informal housing structures in any available space. Back in 2003, UN-Habitat provided disturbing estimates about the proportion of Sub-Saharan Africans living in slums with the most incredible being in Ethiopia, where 99.4 % of its city dwellers were deemed to be living in slums (UN-Habitat 2003). There is a close connection between rising urban population and the phenomenal rise of informal settlements in many African cities. For example, it is estimated that 57 % of the world's population will be living in urban areas by 2025 (UNICEF 2012). In Ghana however, as much as 63 % of the population will be living in urban areas by that time (Ghana Statistical Service 2011). Many factors are responsible for that trend, the most prominent being the high rates of unemployment and underemployment in the rural areas, deteriorating living standards arising from increasing poverty, rising social mobility among the youth, and relative availability of informal sector work in the cities (UNICEF 2012).

There is a strong correlation between the foregoing developments and the rampant neo-liberal policies of the 1980s and 1990s. The global economic crisis of the late 1970s, with its origins in the oil crisis and slump of primary commodity prices, precipitated the decline of many African economies in the 1980s. By the early 1980s many Sub-Sahara African cities had started to reel under the pressures of rapid urbanization. The paradox as noted by Davis (2006) was that the economies of many of those cities declined rapidly, in some cases by as much as 5 %, while the rates of population growth in cities in Kenya, Ghana, Nigeria, Cote d'Ivoire, Angola etc. were between 4 and 8 %. Many cities across the continent therefore lacked the financial capacity to absorb the new migrants into their planned housing systems or even provide the requisite infrastructure. The various forms of formal housing provision such as purpose-built houses for the poor or low cost houses, public housing, hostels etc. both in city centres and peripheries therefore declined rapidly but with concurrent expansion in informal settlements, shanties, and slums (Davis 2006).

The neo-liberal policies codified into structural adjustment policies (SAP) were portrayed as the panacea for the declines in African economies at the time and vigorously pursued at the instance of the World Bank and International Monetary Fund (IMF). Ghana religiously pursued those policies and by the World Bank's own estimation did so with more vigour and dedication than any other country (Verlet 2000), for which reason Ghana was regularly touted as an example of how

neo-liberalism could transform a country. Indeed there were some remarkable improvements at the macro level, but there were also palpable failures which visited the majority of people with unprecedented hardships. The precursor to the decade or so of neo-liberalism in Ghana was a decade of economic mismanagement, rent seeking and mundane corruption that reduced Ghana to its economic and political knees. According to Frimpong-Ansah (1991, p. 97), the 'steepest rate of decline' occurred in the period from 1975 to 1983, with the inflation rate for example been 123 % in 1983. With zero net foreign reserves, the resulting shortage of foreign exchange severely diminished the capacity utilisation levels of industry and the level of employment in the formal sector (Adepoju 1993). Even though the population was rapidly increasing at a rate of nearly 3 % per annum, the provision of any form of housing by the State nearly halted for lack of financial capacity. Private efforts that historically had been the means through which Ghanaians housed themselves also collapsed because there was a major shortage of building materials such as cement and roofing sheets. With this background, the need for drastic economic reforms was overwhelming, immediate actions inevitable, if Ghana were to make any strides in resolving its problems. The ruling government, the Provisional National Defence Council (PNDC) designed a home-brewed economic recovery programme (ERP) in early 1983 to tackle the economic decline. According to Rimmer (1992), after concerted efforts and negotiations with the West, the first standby credit was granted to Ghana in April 1983, thus ushering in almost two decades of IMF/World Bank-instigated adjustment policies.

Ghana's virtual economic collapse and reform coincided with the rise of conservative governments in Britain and United States in the 1980s. Those political occurrences provided the ideological legitimacy for market-oriented policies and the contention that it was 'inefficient' for governments to intervene in the production and distribution of resources in the economy (Kiely 1998, p. 31). It also paved the way for major declines in government expenditure. The initial impact of SAP was considerable improvement in the economy relative to the pre-SAP situation. For example, there were initial reductions in the budget deficit, inflation rate, and increases in GDP (Maddison 1995). Many of these achievements were however not sustainable as budget deficits expanded again, export growth and investment rates stagnated and in 1995 for example, inflation crept back to 74 % (ibid.). Furthermore, even though the central policy of trade and foreign exchange liberalisation under SAP brought consumers access to a wide array of imported goods, domestic industries were set on a path of decline. Thus by 1998, the total external debt had ballooned to $6.9 billion (World Bank 2001), while at least 15 % of export revenues was used for debt servicing compared to only 5 % in 1970 (UNICEF 1998). Predictably, both economic and social inequalities remained very high. For example, the share of the top 20 % of the population in income and consumption in 1997 was 42.2 % but the lowest 20 % had only 8.4 %, while the incidence of poverty for 1998/1999 in both rural and urban areas remained high at rates of 52 % and 23 % respectively (World Bank 2001).

SAP therefore left in its wake mixed results at both the macro and micro levels. What was intended as the panacea profoundly led to rising unemployment,

withdrawal of subsidies, higher costs of health, education services, and other social services (Verlet 2000). Hence the basic social welfare programmes instituted in the previous decades, particularly under the government of Dr Kwame Nkrumah and the Convention People's Party, in terms of subsidised health care, education, and basic support to farmers and in particular social housing were abandoned or curtailed. In fact, to mitigate the social hardships and quell some of the criticisms, the World Bank financed and supervised a number of remedial policies, the most prominent of which was the Programme of Action to Mitigate the Social Costs of Adjustment (PAMSCAD) (Ofosu-Kusi and Mizen 2012). Unfortunately such actions were belated, largely ineffective and at best 'symbolic' (Verlet 2000, p. 68).

One of the most dramatic consequences was the virtual collapse of government efforts in housing provision and the failure of the market forces to respond to demands of the poor and under-privileged. With piecemeal actions, half-hearted commitment, and as UN-Habitat (2011, p. xxii) reports, no 'dedicated ministry of housing' and most of state housing institutions inoperable or shifting their attention to the demands of 'the few middle- and high-income earners', a critical shortage of housing for the poor emerged. It is against this background that the chapter traces the role of neo-liberalism in decimating interest of the poor and exaggerating those of the rich in the housing market in Ghana.

Housing Provision: Antecedents from the Pre-adjustment Era

Prior to colonialism and during that era, people were largely responsible for their housing needs. The colonial government in the early stages did not assume the responsibility of providing affordable houses for the majority of people. Rather its efforts were directed at housing the expatriate public servants and representatives of European companies that were operating in the colony (Tipple and Korboe 1998). However, as a result of the colonial government's development programme, a number of natives lost their houses in the 1920s. This forced them to introduce the Dispossessed Persons' Housing Scheme to provide replacement housing for owners of the affected dwellings, an effort that lasted for a decade, from 1923 to 1933 (Konadu-Agyemang 2001c). The 1939 earthquake of Accra that displaced and made thousands of people homeless again forced the colonial government to implement another housing scheme, the Earthquake Victims' Housing Scheme, at subsidised rates. The Osu, Mamprobi and Chokor housing estates were examples of such estates (ibid.) Again, in order to meet the housing needs of the returning veterans of the First World War in 1945 and to quell their agitation for decent living conditions, the colonial government built the Legions Villages. Apparently, the colonial government at this stage had no intention of voluntarily constructing houses for the masses, whatever efforts it made stemmed from manmade or natural triggers.

In 1946 however, two government housing schemes were initiated. First, the Department of Social Welfare was mandated to build one, two- and three- bedroom houses to rent out at economic prices to people. Second, the Town and Council Housing Scheme implemented in Accra, Kumasi and Sekondi, granted loans to those who could deposit 20 % of the cost to build houses within their municipal areas. Also the 1951–1958 Development Plan incorporated housing into the overall development framework of the country (Arku 2006). The financial input made by the state permitted the experimentation of different housing schemes, ranging from subsidized housing to housing loan schemes. Though at this stage some form of voluntary efforts were made by the government to provide houses for the masses, most of them were concentrated in the major cities of the country and also benefited mostly the middle class. For instance, the required 20 % down payment effectively excluded low income people from accessing the loan facility (Source: Arku 2006).

A remarkable legacy of blueprints was by this time available for future housing policies to replicate or adapt. For example, from 1959 to 1966 the Convention People's Party (CPP) initiated and implemented policies that aided individual homeownership (Konadu-Agyemang 2001a). Besides, serviced land in the peripheral regions of the larger towns were made available to poor people who were expected to form groups in order to qualify for assistance to build cheap houses. During the same period, the government initiated the Roof Loan Scheme, under which loans were given to people who could build their houses up to certain levels according to predetermined standards. The loans were meant for the purchasing of roof, doors and windows. Concurrently, the first Ghana Building Society was given the responsibility to provide parallel loans to Ghanaians who needed mortgage financing of up to 80 % for group-applicants and up to 95 % for civil servants. Besides, the State Housing Co-operatives were given resources to build two- or three-bedroom houses for the middle and lower income groups. Even though the objectives and intentions were progressive not much was achieved as only 2,517 houses of the proposed 6,700 units under the self-help housing and the roof loan scheme were built (Tipple et al. 1999).

The succeeding government, National Liberation Council (NLC) (1966–1969), put emphasis on self-financing organizations that focused on the flow of savings, banking and insurance for housing. For example, the Tema Development Corporation and the State Housing Corporation were given the mandate to provide 2,000 housing units every year. However, only 1,000 housing units, all located in the principal cities of Accra, Kumasi and Sekondi-Takoradi, could be constructed during the reign of the NLC. In any case, only 2.7 % of the houses constructed were meant for the poor (Konadu-Agyemang 2001c). In the development plan of the Progress Party (1969–1972), emphasis was placed on the role of building societies, housing cooperatives, banks, insurance companies and private financiers in the provision of housing. Though some low cost houses were built, the housing policy was abandoned after the government was overthrown. The succeeding governments of the National Redemption Council (NRC) and Supreme Military Council (SMCI) (1972–1979) made huge budgetary allocations for the provision of housing for the poor under the leadership of a low cost housing committee. By 1975, 5,466 housing

units in all the regional capitals had been completed. The public servant housing loan scheme was also launched with the Bank for Housing and Construction as the lead institution for the distribution of loans (Arku 2006). Again the loans were given to people with the financial wherewithal to repay but not necessarily in need of housing.

In 1979 the Armed Forces Revolutionary Council (AFRC), as part of its campaign of eradicating corruption and inefficiency in the housing sector, confiscated houses belonging to the rich, imposed rent controls on landlords and sold available building materials at regulated prices to the poor. This effort was quite problematic for the housing sector and indeed caused major dislocations in the housing market as the supply of houses virtually ground to a halt. Though the next government of the People's National Convention (1979–1981) evolved plans for the provision of affordable houses, it was overthrown by the Provisional National Defence Council (PNDC) in 1981. It went on to implement the long-drawn structural adjustment policies from 1983. Some efforts though were made at solving the problem; in 1986, the National Shelter Strategy housing policy was drafted as an action plan to provide adequate housing units to improve the quality of life in the urban areas.

The PNDC metamorphosed into a democratically-elected government in 1992 as the National Democratic Congress (NDC) for 8 years and was followed by the New Patriotic Party for another 8 years. Both governments had limited, at best mixed results in their efforts to provide affordable housing for the majority of Ghanaians. For example, the First Medium-Term Development Plan of the Ghana Vision 2020 Scheme envisaged that from 1997 to 2000, the state would provide low-income housing (UN-Habitat 2011). However, because of low commitment to that objective the project never materialized on the grounds of lack of funds. In 2001, the government again proposed to build about 20,000 affordable housing units. However, by 2007 only about 4,500 units at various stages of completion at Borteyman and Kpone in Accra, Asokore Mampong in Kumasi (Ashanti region), Akwadum site Koforidua (Eastern region), Tamale (Northern region) had materialized (Government of Ghana 2012). Though they were scheduled to be completed by June 2009, none has been completed to date as the succeeding government in the true faith of neo-liberalism chose to abandon half-built houses in favour of new private sector initiatives.

What is clear so far is that in the pre-SAP era the various governments directly financed the construction of houses in the country by granting subventions to state housing agencies or providing innovative solutions. While some of the efforts were productive and had considerable insight of what was needed in the housing sector, much of the effort was short-lived because of political instability and variations in policy or sometimes outright abrogation. The post-Nkrumah efforts at housing provision therefore were undermined by political instability, economic mismanagement and extensive corruption and rent-seeking over the years. For example, subsidized housing loans often ended up in the accounts of bureaucrats and the middle class who could afford market-determined housing loans. Besides, the so-called low-cost houses built in the eras of the various governments invariably ended up in the hands of the rich, civil servants and political class. Thus,

institutional corruption and failures, misallocation of housing funds, cronyism, non-enforcement of control and regulatory systems by the state and public institutions combined to undermine improvements in the stock of public housing in the country. Unfortunately, these problems fuel the arguments for market-oriented housing provision as envisioned in neo-liberal corridors. The significant point however is the fact that the state in the pre-SAP era recognized the need to build houses for the poor, low- and moderate-income earners, and made concerted efforts to achieve those objectives.

The Illogic of Focusing on the Housing Needs of the Rich

Even though some efforts were made at housing provision in the SAP and post-SAP eras, the state decidedly took a backseat and abrogated its direct responsibility in favour of creating the phantom 'enabling environment' for the markets and its actors.

The neoliberal logic is that governments can ensure rapid prosperity for their citizens if they principally focus their attention on the creation of enabling or liberating environments so that markets can function efficiently (Pieterse 2008). And in this respect, increasing economic globalization and the spread of neo-liberalism have greatly shaped the way cities develop across the world (Afenah 2009), with the situation in Accra being no exception. With the gradual withdrawal of the state from the provision of housing, the private sector has responded to the demands of the market, albeit in a dysfunctional way. Its impact can be felt greatly in the city of Accra since many areas have been gentrified to attract the middle and the upper classes of the city. Thus, the more organised and formal physical expansion of Accra has been directed mostly at the middle and upper classes as well as the expatriate community. As expected, the opening up of the housing industry to private sector initiatives by the government has enticed both local and foreign investments (Asiedu and Arku 2009), though the major beneficiaries are the major real estate developers who target the rich, rather than the small-scale builders in the low end of the housing market. Obviously, when mansions are built on prime land and priced at a minimum of $200,000 (Konadu-Agyemang 2001b), one can assume that the developers have no intention of solving the massive housing shortage in the country. Those with the greatest demand for housing earn no more than $300 a month if they are lucky to have employment at all. This irony is reflected in a World Bank report in 1999 to the effect that Ghana has the highest house-price to income ratio among the countries it covers in the world (Tipple et al. 1999).

An appropriate imprint of neo-liberalism on the housing market is the development of gated communities for the rich and privileged, with the most celebrated been Trasaaco Valley in Accra. This as Grant (2005, p. 661) notes, are 'residential areas with restrictive entrances in which, normally, public spaces have been privatized'. In these spaces, the upper middle class is offered exclusive access to

high quality buildings and related infrastructure such as roads, drainage systems, lighting, security, and cleaning services (Landman 2004). Building a fence wall around an individual house is not uncommon in Ghana as many financially capable individuals build houses with large compounds surrounded with fence walls to secure the building plot as well as lives and property. The walls in that sense only separate one house from the other while the public space is open to both neighbours and outsiders with no restrictions of entrance. However, the gated housing estate as a living place for solely the upper class where an entire neighbourhood is sealed off by high-security fence wall to the segment of population who does not own a house in the community is entirely new to Ghana and the majority of its citizens.

According to Grant's (2005) study, by June 2004 there were 23 gated communities offering 15–600 units at different stages of construction and were expected to provide altogether 3,644 housing units when completed. By 2009 more than 50 gated communities had been completed (Asiedu and Arku 2009). Individual units, depending on the residential location ranged from US $30,000 to US $460,000 as at 2004, and would therefore be considerably higher now considering that the inflation rate for dollar-priced housing in Ghana defies conventional economics. This trend obviously shows that developers appeal mainly to high-income-earning professionals such as managers, accountants, engineers, and lawyers with an average monthly net income per household of about $4,000 (Asiedu and Arku 2009). The homeowners in these communities are in classes of their own since per capita income in Ghana is only about $1,000, with grossly unrealistic daily minimum wages. The exclusivity of such houses is also evident in the fact that 50 % advance payments have to be made prior to their construction (ibid.).

Without any forms of control and regulation from the government and in the truest sense of capitalism, developers have over-reacted to the abnormal profits that could be made in the provision of those houses. Judging by the intensive advertisement in the local media and on the internet one can conclude that there is keen competition in the sector of the housing market. The country therefore faces an overproduction of housing for high-income earners while the persistent shortage in the lower end of the market is left unaddressed. No doubt there is a certain appreciable level of demand for such housing, however it is common knowledge that a lot of unoccupied executive mansions in the plush neighbourhoods of north-eastern Accra exists.

Figure 7.1 typifies housing in gated communities for the middle class. While the nice facades give a sense of well-being and prosperity, they belie the true extent of the housing problem in Ghana. Rather, the gated communities are a potent sign of societal segregation, in which the hard-working and lucky rich (sometimes through ill-gotten wealth) creates enclaves of prosperity in the midst of poverty marked by unplanned neighbourhoods, (dis)arrays of shacks, open drainages and dusty pot-holed roads.

The majority of adults, who cannot venture near the gates in Fig. 7.1, continue to depend on the informal sector for their housing needs in the urban areas of Accra, Kumasi, Sekondi-Takoradi and Tamale, the four major cities of the country. With lower expected profits, inability to price in dollars, and unwillingness to deal with

Fig. 7.1 Medium-priced gated communities in Accra. *Source*. http://regimanuelgray.com/ and http://devtraco.com.gh/

the uncertain poor of society, the companies and entrepreneurs with the financial resources and technical capacity shy away from the informal sector. While the onus should fall on the government to fill the gap by providing the large scale mass housing needed to fill the vacuum, it is caught in the grips of neo-liberalism and therefore pretends to abide by the principle that the market knows best. In order to achieve this, the state often provides incentives in the form of tax reliefs or tax rebates or as in the controversial STX Korea case, secure land and guarantee loans. Though the motive behind such incentives are good, they usually benefit the large real estate developers who are more interested in the high-end of the housing market rather than the small-scale builders who usually cater for the needs of low and middle income earners. Thus even though the government acknowledges the shortage of housing for the poor, its efforts have come to nought because its actions are more lip service than concrete actions. Yet, against an annual population growth of 2.3 %, rapid urbanization, and 54 % of the population living on less than $2 a day (UN-Habitat 2011), the national priority in housing cannot be left exclusively to the forces of demand and supply as espoused in the neo-liberal discourse. In the

absence of massive state involvement and construction of low cost houses in whatever form to benefit the poor, it is not surprising that many parts of Accra and other cities in the country have become dysfunctional and unsustainable habitats. A quintessential example is the slum at Old Fadama which is taken up in the next section of the chapter.

Resilience Through Shacks and Concrete: How the Poor Fend for Themselves in the Housing Market

Government efforts in dealing with the housing problem in the country by way of development loans, tax exemptions and bilateral agreements tend to favour the formal sector. But as UN-Habitat (2011) authoritatively notes, the majority of houses (we reckon, at least 80 %) materialises through individual efforts, often over many years of construction. With the state regulatory bodies corrupted and dysfunctional, many of the neighbourhoods develop slum-like conditions even before they become built-up. It comes as no surprise therefore that an estimated 40 % of Ghanaians live in slums or slum-like conditions, often a visible manifestation of the rapid expansion of the informal sector. A good example of how the poor fend for themselves under conditions of extreme poverty, spatial irregularity and informality, and governmental neglect and apathy is Old Fadama, arguably the biggest slum in Accra and Ghana as a whole.

Old Fadama sits on the banks of the Odaw River as it approaches the Atlantic Ocean, covers an area of about 32 ha and has an estimated population of 80,000 (People's Dialogue on Human Settlement 2010). This works out to a population density of 2,425 per hectare, and therefore makes it one of the most densely populated areas in Ghana. It is an aggregation of commercial activities ranging from trading in foodstuffs and vegetables, hardware, metal recycling, lorry stations as well as residential quarters. None of the traders, hawkers, artisans, mechanics, etc who occupy the area for their various activities can claim ownership of any piece of the land since the area has been designated as state land (Grant 2006). Prior to the 1990s, it was largely 'unoccupied', until large swathes of settlers descended upon it. According to Grant, the combining forces of rapid urbanization, decongestion and relocation exercises of the Accra Metropolitan Authority between 1991 and 2005, and the influx of displaced people from the various northern conflicts involving the Nanumba, Kokomba and Dagomba precipitated the rapid expansion of Old Fadama. Bereft of any planning and regulation from the state, a culture of ramshackle housing, convenient and affordable for all manner of people emerged and took root. Thus while in the past, Old Fadama was construed as a place inhabited by northern migrants, its affordable accommodation now attracts thousands of Ghanaians and foreign nationals in search of jobs and alternative housing in Accra.

Much of the space for housing and what might be appropriately termed 'dwellings' comes from progressive reclamation of waterlogged lands with sawdust

ferried from the adjacent Timber Market. The dwellings here, typically measuring 10 ft by 10 ft or slightly larger, are principally made of ply wood and roofed with metal sheeting. Over the years as the area experienced its predictable fires, structures made from concrete blocks have emerged as replacements for the shacks. Invariably, these are poorly constructed single storey dwellings that are tightly wedged against each other, with very little spaces or none between them. Since affordability and convenience rather than luxury underline people's decisions to live here, group sharing of rooms, sometimes up to ten people (Mizen and Ofosu-Kusi 2013), is common even though the rooms are tight and cramped. This of course is a direct outcome of the shortage of affordable housing because logically the number of inhabitants would be less if they could rent rooms in other parts of Accra.

There is no provision for sanitation, but potable water could be obtained from a few stand pipes and in particular at the privately operated public toilets and bathhouses where water for washing and bathing could be purchased by the bucketful. There are just 47 toilet facilities relative to the thousands of people who live and work there. Rather surprisingly, a good proportion of the block dwellings have electricity, while a significant proportion, especially the shacks have no electricity. But only a few of them are legally connected, while a high proportion has been done illegally thus fuelling the rampant fire outbreaks at Old Fadama. Predictably, flies, mosquitoes, cockroaches, mice and other insects and pests are a constant source of irritation, danger and illness. This is not surprising considering that there is no organized refuse collection, but where such efforts are in place they tend to be quite expensive and for that reason offers very little incentive for people to patronize them. Instead, inhabitants randomly deposit rubbish at their convenience, but this creates enormous difficulties each time it rains and the groundwater swells up. Often the haphazardly disposed rubbish rise with the floodwater only to end up in people's dwellings. The other ills the inhabitants have to deal with are water, land and air pollution from the recycling industry in the slum. Thick, acrid and rising smoke emanating from the burning of stripped wires from computers and other electronic goods, lorry tires and household and industrial waste could be seen from most parts of western Accra. While many of the inhabitants appear unperturbed, the long term consequences of exposure to these noxious gases would be debilitating.

But even here, in the mist of the informality, there is a market for dwellings. Petty entrepreneurs reclaim land, build kiosks out of plywood, paint it in bright colours as evident in Fig. 7.2, and put 'for sale' signs complete with contact names and telephone numbers on them. This is usually at the fringes of the settlements where new land has been reclaimed from the lagoon. There is also a market for old 'houses' that have been put up for sale perhaps because the owner has relocated to one of the relatively formal adjacent neighbourhoods, or is returning home or to another part of the country. There are intermediaries or agents who bring sellers/landlords and buyers or prospective tenants together. A study by People's Dialogue on Human Settlement in 2007 found that only a third of the respondents were renting their living quarters, while 68 % had either built their own houses, or

Fig. 7.2 Sections of Old Fadama. *Source*. Esther Yeboah Danso-Wiredu

purchased one. While this is very positive, it must be noted that these so-called houses are in many respects no more than a kiosk or a concrete structure that will represent just one room in a properly constructed house in another part of Accra.

Why would anybody wish to live in such environment? There could be many reasons, but one of the most important is the fact that many of them have been priced out of the housing market in other parts of the city. Unable to acquire and purchase land in Accra (UN-Habitat 2011), without the proper connections to manage the bureaucracy of acquiring building permits and with no interest in the vain official talk of beautifying Accra, Old Fadama provides simple solutions for the landless and poor. Moreover since the regular bureaucracy surrounding formal housing is not adhered to, the eventual cost of construction is quite low.

It is observable then that, whereas there is a very good supply of housing for the wealthy in the plush neighbourhoods of the Airport, University of Ghana, Dworwulu etc, the shortage of housing for the poor impacts drastically on monthly rents in various parts of Accra. Hence a large proportion of the people at Old Fadama are there for reasons of affordability, because while a typical room in a compound house could cost between GHc40 and GHc70 per month in the relatively

poor areas of Accra, similar physical spaces might cost just GHc10 to GHc20 (People's Dialogue on Human Settlement 2010). With affordability as the primary driver, most people (89 %) in the area consider it as their permanent place of abode in Accra. It is therefore a huge irony that a government that has relegated its responsibility for construction of cheap and affordable housing for the poor would constantly threaten the inhabitants with eviction for the simple reason of reclaiming a public good. And there is considerable cynicism in this regard as many of the inhabitants believe that the area will be placed at the disposal of the rich for shopping centres and residential buildings once they are evicted. This would be in the truest spirit of neo-liberalism if it ever happens.

What are the reasons behind the spate of informality and widespread haphazard development in such places? Old Fadama is atypical because it was only meant to be a temporary relocation solution. But that is also the primary reason for its condition because government officials turned a blind eye as waves of migrants erected presumably temporary housing. A good number of the estimated population of 80,000 wield voting powers politicians wish to court. Hence attempts at demolition to pave way for any form of organised development falter as soon as residents remind the government of their political clout or NGOs threaten legal injunctions. On a broader scale, the lack of coordination between landowners, usually families and chiefs, and government agencies such as Survey Department, Town and Country Planning, and Accra Metropolitan Assembly effectively disengage housing development from planning and organization. This development is replicated all over the major cities of the country, with Accra being the worst off.

Conclusion

The state, during the pre-colonial and immediate post-colonial times, made considerable efforts to provide reasonable numbers of low-cost housing for the country's poor and landless. The roofing and building materials loans, group lending to ensure development of organised neighbourhoods and spatial organization were not only innovative but emblematic of their commitment to social justice. The combination of government housing, effective building regulations and adherence to the rules of land tenure and availability of reasonably priced land sustained the supply of affordable housing and therefore abated the tendency for emergence of slums. However, recent efforts from the 1980s have been piecemeal and less focused on the poor. In this respect, much of the effort has been geared towards the provision of housing for the formal sector. Yet with the onset of SAP in the 1980s, and the consequent contraction in the public sector, many of the retrenched staff ended up in the informal sector. With the majority of people working in this sector the governments' focus on the construction of houses and flats primarily for the formal sector workers represents an outright exclusion of the largest proportion of Ghanaians in need of accommodation.

While Ghana cannot lay any credible claim to being an egalitarian society even in the times of state socialism in the late 1950s and 1960s, the rampant forces of neo-liberalism have exacerbated any inequalities that existed. The state by making itself virtually redundant in the provision of direct housing for the teeming masses of the country's population continues to abide by the primary tenets of neo-liberalism, minimal state intervention. Ironically, this has contributed to the emergence of unplanned, unregulated and poorly constructed houses and to the sprawling of the major cities in the country. In this respect, though there is a boom in the formal housing market, there is also an urgent need for *massification* of housing for the poor and low income earners. Unfortunately, the attractions of that market are not glaring enough for the highly capitalised entrepreneurs and companies operating in the housing industry. The government either has to provide additional incentives for them to respond to that demand or assume the direct responsibility of providing cheap and affordable housing. The tax exemptions given to private companies and developers to build the gated communities should be redirected to providing houses for the poor in numbers and prices that will satisfy the demands of that segment. Alternatively, the government could revisit the traditional compound houses that simultaneously accommodated many families since with a little tweaking as noted by Danso-Wiredu and Loopmans (2013), it will be able to provide decent and more cost-effective housing for the poor. Any prolonged failure to act with more commitment will only drive more people into slums and emerging neighbourhoods that are nothing but new slums.

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Chapter 8
Environmental Change, Livelihood Diversification and Local Knowledge in North-Eastern Ghana

Emmanuel Kanchebe Derbile

Abstract In Sub-Saharan Africa, one of the most daunting challenges of development is how to address the vulnerability of livelihoods to environmental change, including climate change and land degradation. Livelihood diversification is very often discussed as a strategy for reducing livelihood vulnerability to such change, but the dynamics and policy implications are seldom explored adequately. This chapter explores the patterns associated with livelihood diversification for reducing vulnerability to environmental change in the Atankwidi basin, north-eastern Ghana from a three generational and gender perspective. Empirical data from in-depth interviews, focus group discussions and a survey of 131 randomly sampled households show mixed and dynamic patterns in diversification. These include increasing diversification of household livelihood portfolios, a declining trend in the number of spouses engaged in subsistence agriculture and an increasing trend in the number of spouses engaged in trade. The author argues that the patterns and dynamics of livelihood diversification for addressing vulnerability are akin to an Endogenous Development (ED) approach. Livelihood diversification draws on local resources and proceeds with subsistence agriculture as the primary livelihood of the household and an embodiment of the local knowledge of the people. To this end, incorporating environmental change adaptation planning that address challenges of subsistence agriculture, trade and handcrafts through District Development Planning (DDP) is appropriate in Ghana.

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Introduction

In this chapter, I explore the nexus between environmental change, household livelihood diversification and local knowledge systems in the *Atankwidi* basin, north-eastern Ghana. In the wake of land degradation including climate change and variability, livelihoods with strong and direct dependence on the natural resource base have become vulnerable to the latter. The *Atankwidi* basin, in which subsistence agriculture and agro-related livelihoods are predominant, is one of such areas livelihoods are vulnerable to these physical environmental changes. In the search for local and sustainable solutions, indigenous and local knowledge systems have become vital for developing resilience and minimizing vulnerability to environmental change in many places around the world. At the heart of the local knowledge systems in the *Atankwidi* basin in the search for local solutions is household livelihood diversification, which is generally documented and known. In this chapter, a deeper insight on the subject of livelihood diversification is explored; the dynamics of household livelihood diversification and the gender perspectives from an inter-generational analysis and the implications for policy planning.

The chapter is organized into seven sections, this introductory section being section one. Section two presents an overview of the contextual setting, environmental change and livelihood vulnerability in the *Atankwidi* basin. In section three, a theoretical and conceptual framework premised on Endogenous Development (ED) is presented. This is followed by the methodology for data collection and analysis in Section four. The results and discussions are then done in sections five and six respectively. The discussions examine the connection between local knowledge and livelihood diversification in the broader context of endogenous development. The conclusion and policy recommendations are done in section seven.

Environmental Change and Livelihood Vulnerability in the *Atankwidi* Basin

This chapter draws on research conducted in the *Atankwidi* basin largely located within the central to north-eastern parts of the Kassena-Nankana Districts,[1] Upper East Region of Ghana (Fig. 8.1). A bit of the catchment of the *Atankwidi* basin extends into the western and central parts of Bongo District and Bolgatanga

[1] The Kassena-Nankana District was split into Kassena-Nankana West District and Kassena Nakana East District in 2008 following a new government policy to increase the number of districts in the country. The study was conducted in 2008, at the time the district was split into two without boundaries except for distribution of communities between the two districts. Thus, for the sake of convenience, Kassena-Nankana Districts (KNDs) is used in this paper to refer to the two new created districts.

Fig. 8.1 Location of *Atankwidi* Basin in regional and national context. *Source*. Derbile (2010, p. 6)

Municipal, the latter being the regional capital. To the north, the basin also extends into Burkina Faso. The basin is largely populated by two ethnic groups. These include the *Kassem* and *Nankane* speaking people linguistically, classified as *Grusi* and *Nankansi*, respectively. The population of KNDs is estimated to be 156,090 with about 51.6 % being females. Currently, it has one of the highest population densities in the country (Laube et al. 2008).

The *Atankwidi* basin, a sub-basin of the Volta River Basin of West Africa is vulnerable to environmental change because livelihoods of the population mainly include farming and agro related non-farm activities that are largely dependent on a degraded natural resource base, including unfavourable climatic patterns and degraded lands. Conceptually, vulnerability has two sides, an external side comprising the risks, shocks and stress posed by a hazard[2] and an internal side consisting of (in) ability to anticipate, cope with, resist and recover from the impact of the hazard (Chambers 1989, p. 33; Bohle 2001). The external side of this "double structure of vulnerability" (Bohle 2001, p. 119; Birkman 2006, p. 19; Van Dillen, 2004), sets the framework for discussion here. The discussion highlights the exposure of livelihoods to risks, shocks and stressors arising from environmental degradation. In northern Ghana, and the *Atankwidi* basin in particular, environmental degradation undermine livelihood security. This is because agriculture, the primary source of livelihood for majority of the population is increasingly dependent on a degraded natural resource base. The economic base of northern Ghana hinges on smallholder agriculture with over 80 % of the population depending on it for their livelihood (Songsore 1996, p. 53). In the Kassena-Nankana East and West Districts where a larger part of the *Atankwidi* basin is located, subsistence agriculture is the mainstay of the economy accounting for about 68 % of employment. The remaining 32 % are involved in various kinds of non-farm based livelihoods (KNDA 2001), most of which are also agro-related and depended on a degraded natural resource base.

[2] A 'hazard' is a dangerous phenomenon or condition that may cause harm, loss of life, loss of livelihoods and social or economic disruption (UNISDR 2009: 7). Hazard is used here to refer to hazards of natural origin such as desertification, land degradation and drought.

The physical environmental 'hazards' that households confront in pursuit of their livelihoods in the *Atankwidi* basin may be categorised into three. These include (1) desertification of the natural vegetation (2) the geological formation and degradation of productive soils and (3) climatic variability, especially rainfall variability. Desertification is a major form of environmental degradation. This is partly due to conversion of the natural vegetation into croplands for food crop production. In addition, continuous cultivation combined with limited or no fallows have led to significant soil fertility loss. Soils in the *Atankwidi* and the larger part of northern Ghana developed over granitic rocks underlain by the Birimian geological formation. These soils have an element of 'inherent poor soil fertility' although they have supported crop cultivation for generations. Accordingly, multiple processes of agro-ecological degradation in the UER, has led to a deterioration of the quality and productivity rating of the land (DGRD 1992).

The overall impact of these physical constraints is low agricultural production in the basin, including both food crop and livestock production. Non- farm livelihoods have also been adversely affected, especially those that are agro-related and dependent on agricultural and forest raw materials for production. For instance, land degradation has caused deficits in products of the forest, woodlands and trees. These include fuel wood and charcoal, food, building materials, game, meat and raw materials for income generation, artisanal and domestic needs (EPA 2002). The impact of environmental degradation affects a large proportion of the population in the *Atankwidi* basin because an overwhelming majority depend on 'low input'—'rain fed' subsistence agriculture for their livelihood. According to the GSS 69 % of the population depends on farming as a major livelihood in the KND (GSS 2002).

The UER is one of the poorest regions in Ghana and low economic productivity and production; especially in agriculture arising from the impact of environmental degradation in the basin is partly to blame. Farmers are also knowledgeable (GSS 2002) about these long-term environmental changes in the UER (Dietz et al. 2004), but they are also knowledgeable about their vulnerabilities to such changes. Farmer experiences with crop failure are on the increase and this is having an overall adverse effect on food security in the UER (Obeng 2005, p. 117).

Endogenous Development: Local Knowledge and Livelihood Diversification

This paper draws on Endogenous Development (ED), as an alternative post-modern approach to community development for conceptual guidance. It emphasizes genuine community participation, ownership and utilization of local resources, including local human resources and institutions for addressing local development problems. Endogenous Development(ED) essentially implies development driven mainly from 'within' communities themselves. Thus, it draws mainly on locally available resources, local knowledge, culture and leadership, and people's Cosmo

vision and allows for the inclusion of relevant outside knowledge's and practices for development purposes (Haverkort et al. 2003). According to Millar (2005, p. 93), this form of development is more akin to African systems of agricultural productivity than previous paradigms of development. He asserts that Endogenous Development (ED) patterns depend, but not exclusively, on locally available resources including land, water, vegetation, local knowledge, culture, leadership and local mechanisms of experimenting and learning. To this end, ED is essentially development from within communities themselves (Harverkot 2004, p. 8). On a much broader scale, an endogenous approach to development fits within the broader discourse of a new development thinking and practice that values indigenous technology, farmers' participation in development, sustainability, and an enabling and empowering experience that enable rural people to shape their own destiny in terms of development (Chambers 1999).

Indigenous knowledge (IK) plays an important role in Endogenous Development (ED). Thus, ED rides on indigenous knowledge which according to Nuffic and UNESCO (1999, p. 10), is "the unique, traditional, local knowledge existing within and developed around the specific conditions of women and men indigenous to a particular geographic area". They emphasize that indigenous knowledge is embedded in the community and is unique to a given culture, location or society. For others, indigenous knowledge is the accumulated knowledge, skill and technology of the local people derived from systems of production and consumption. It is dynamic and responds to challenges through local adaptations, experimentation, and innovation under diverse and heterogeneous conditions. These successful adaptations are preserved and passed on from one generation to another through oral and /or experimental means (Aluma 2004). It is this dynamic nature of indigenous knowledge that allows for the localization of knowledge, that is, importation and adaptation of external knowledge to solving local problems in local situations. The resultant outcome of importing and adapting external knowledge to local situations for meeting community needs, is what some scholars refer to as local knowledge (Evers 2003; Gerke and Evers 2005).

This chapter therefore, assumes a pluralistic view of local knowledge as embracing both indigenous knowledge and adaptation of external knowledge to local situations because such a generic view is consistent with the basic tenets of Endogenous Development. In its generic application, local knowledge is simply what people know and do to irk out a living in a changing environment. To this end, both elements of 'indigeneity' and 'externality' are assumed. On the one hand, local knowledge refers to 'indigenous knowledge systems' developed by local communities themselves over generations and may have been subject to transformation resulting from influence of 'external' knowledge systems (Blaikie et al 1997; Aluma 2004). On the other hand, local knowledge is also applied as referring to the importation and adaptation of new knowledge from external sources to local situations through negotiation between internal and external actors (Pottier 2003). Also, see Evers (2003) and Gerke and Evers (2005).

For the purpose of analysis, this chapter presents a conceptual framework that assume that local knowledge shapes the patterns of household livelihood

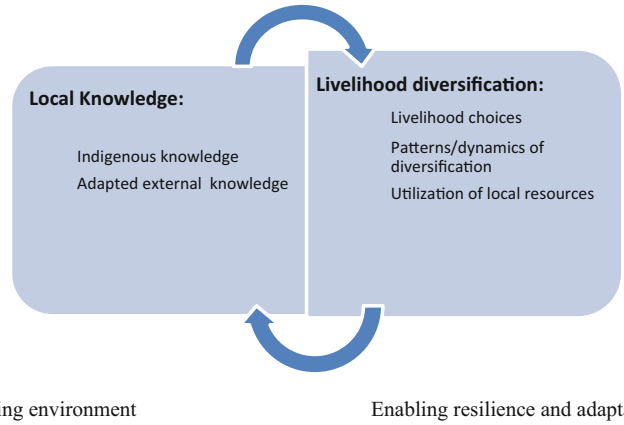

Fig. 8.2 Endogenous development: local knowledge and livelihood diversification. *Source*. Author's construct (2013)

diversification for enhancing adaptation to environmental change in a manner that gives true meaning to ED (Fig. 8.2).

The conceptual framework as represented in Fig. 8.1 builds on three interrelated premises: first, that local knowledge systems shape livelihood choices, patterns and dynamics in household livelihood systems on the one hand; secondly, that these livelihood choices, patterns and dynamics of household livelihood portfolios are an explicit expression of the people's local knowledge of the people; and finally, that the outcomes and dynamics between local knowledge and livelihood systems are intrinsic and or give true meaning to an ED approach, enabling adaptation of livelihoods to environmental change.

As an entry point, the framework presents local knowledge as a driving factor for livelihood diversification and thus highlights the strategic importance of knowledge for building sustainable livelihoods. The importance of indigenous knowledge or local knowledge as a strategic resource and driver of innovations for sustainable development is widely acknowledged (Chambers 1999; Ramphele 2004; Sillitoe 2004). There are several domains of indigenous knowledge systems (IKS) that are relevant to ED at community levels. One of such key areas is indigenous institutions[3] which is part of indigenous knowledge systems. For instance, indigenous institutions shape the way livelihoods in agriculture and non-farm livelihoods are practiced but also play an important role in inter-generational transfer of livelihoods, particularly, ascriptive livelihoods (Derbile 2013).

For the purpose of livelihood analysis, the application of 'tacit knowledge' (Nonaka and Takeuchi 1995) in the local context is implied. Nonaka and Takeuchi

[3] Some sociologists conceive of institutions less in terms of fixed rules and more in terms of practices; and that some action and practices serve to reproduce structures, but also agency, norms and change of established norms over time (Giddens 1984; Bourdeiu 1977).

describe tacit knowledge as deeply rooted in an individual's action and experience, ideals, values and emotions. It has two dimensions—the technical and cognitive. The technical dimension encompasses the informal skills in terms of 'know how' while the cognitive dimension consists of schemata, mental models, beliefs and perceptions that are very often taken for granted although they shape the way we perceive the world around us (Nonaka and Takeuchi 1995, p. 8). It is estimated that about 80 % of all knowledge is tacit knowledge (Botkin and Chuck 2001; cited in Evers 2008) and that the conversion of knowledge from tacit to explicit remains one of the most challenging domains in knowledge management (Evers 2008, p. 6). Thus, the best way to transmit tacit knowledge is still by observation, physical contact and learning by doing (Evers 2008, p. 6). This is the context in which in one breadth local knowledge is seen as shaping livelihood choices and patterns and in another that these very livelihood choices and patterns convey the explicit knowledge of the people.

The concept of livelihood is intrinsic to that of livelihood diversification and the latter is particularly akin to the very nature of rural household livelihoods in Ghana and Africa as a whole. In simple terms, livelihood refers to what people do and the resources they use to make a living. A livelihood comprises people, their livelihood capabilities and means of living. This includes food, income, tangible assets such as resources and stores, and intangible assets, such as claims and access (Chambers and Conway 1991, 1992). Thus, it includes resources for building a satisfactory living and managing risks within institutional and policy opportunities or constraints (Ellis and Freeman 2005). To this end, livelihood depicts the phenomenon of households striving to make a living through the management of existing resources, coping with uncertainties and exploring new opportunities in an attempt to meet their basic needs (Long 1997; Appendini 2001; De Haan and Zoomers 2005). In the context of households, livelihood diversification depicts the multiplicity of livelihoods and social arrangements for supporting the living of household members. Ellis (1998, p. 1) defines livelihood diversification as "*the processes by which rural families construct a diverse portfolio of activities and social support capabilities in order to survive and to improve their standards of living*". This lends further credence to the assertion that livelihood diversification is an embodiment of the local knowledge systems of rural households (Derbile 2010) and shapes 'what' and 'how' people construct livelihoods for making a living in a changing environment.

In an ED approach as represented in this conceptual framework (Fig. 8.1), there is heavy dependence on local knowledge systems, particularly, indigenous knowledge systems in developing diversified household livelihood portfolios. This naturally leads to heavy if not exclusive dependence on local resources. Such orientation towards both local knowledge and local resources give true meaning to the basic tenets of Endogenous Development.

Research Methodology

This chapter draws on data from a larger study on livelihoods and environmental change in the *Atankwidi* basin, north-eastern Ghana (Fig. 8.1). A mixed research methodology, that is, a blend of qualitative and quantitative research methods were applied in the collection of data in the study. This chapter benefits from some of the data that was collected from three communities, namely, *Yua*, *Mirigu* and *Pungu*. *Yua* was designated an in-depth study community in the research design. The in-depth study community was purposively sampled based on the researcher's knowledge of which community better represented a good setting for studying local knowledge flows and livelihood connections. Stratified random sampling was applied in the sampling of the other two communities in order to ensure inclusion of the two main ethnic groups in the sample—Pungu for *Kassem* and *Mirigu* for *Nankane* speaking people, respectively.

First, the chapter draws on qualitative data from focus group discussions and in-depth interviews conducted in *Yua*. Focus group discussion sessions were conducted among six male and nine female knowledgeable and experienced farmers in the community. These discussants were sampled purposively with the aid of an assistant for their knowledge-ability. For each focus group, two discussion sessions were conducted to ensure completeness of data. In all four focus group discussion sessions were conducted. In addition, in-depth interviews were applied to household heads and or spousal counterparts with the aid of interview guides for building household livelihood profiles and understanding their knowledge systems. A series of in-depth interviews were conducted among spouses of two households and where it was a single spouse, another relative; in this case, a mother-law was interviewed. For each spouse, two interviews were conducted and for each household, four interviews were conducted. Overall, eight in-depth interviews were conducted and this together with results from focus group discussions enabled inter-generational livelihood profiling of households.

Secondly, the chapter also draws on data from a household survey that was conducted in 131 randomly sampled households across the three study communities. The survey allowed for testing of the statistical incidence of some emerging issues on local knowledge and livelihoods arising from the application of qualitative methods in the study.

Finally, a three generational analysis framework[4] was employed for collecting and analysing data for the purpose of establishing inter-generational differences.

[4] For each household, the three generations comprised the grandfather's generation, the father's generation and the son's generation. The son's generation refer to the current generation of households whose heads and or spouses were the target respondents in the study.

Results

This section presents the results in terms of the patterns of livelihood diversification. Three identifiable patterns in and or dynamics in household livelihood diversification are presented using three generational analysis. These include increasing diversification of household livelihood portfolios, declining incidence of food crop farming as a primary livelihood and increasing incidence of non-farm livelihoods, particularly trade and handicrafts among spouses.

Increasing Diversification in Household Livelihood Portfolios

The results show an increasing trend in livelihood diversification when household livelihood portfolios of the three generations are compared, with the grandfather's generation[5] as the starting point (Table 8.1). The data shows that in the grandfather's generation, the primary livelihood was farming, including the cultivation of food crops and rearing of poultry and livestock, particularly ruminants such as goats and sheep. In addition, most households did pottery, carving and weaving but this was mainly for meeting household needs rather than for profit making. Thus, aside farming, most households engaged mainly in handicrafts. Similarly, the father and sons generations of household have maintained farming as a primary livelihood and this practice was handed down from generation to generation. In addition, involvement in handicrafts is common as a livelihood handed down from generation to generation except that fewer households are engaged in these livelihoods when compared with the grandfather's generation. In the father's generation, farming (crop, poultry and ruminants) is maintained but non-farm livelihoods are expanded in household livelihood portfolios. There is commercialization in agro processing as in pito[6] brewing, shea butter processing and local food vending. Trade in agriculture products, including grains, poultry and livestock become an important livelihood. In this generation, many more livelihood alternatives are included in household livelihood portfolios for adaptation to environmental change, including land degradation and climate change. These include harvesting and processing of wild vegetables, butchering, working for daily wages and seasonal migration in search of seasonal wage work in Northern Region and or southern Ghana. The knowledge of these livelihoods, were equally transmitted down from grandparents to father's generation except that these have become very important livelihoods for the survival of households in the latter than the former.

[5] The three generational analyses consider the grandfather's generation, that is, the grand parents of the present generation as a starting point. Their parents are considered in this analysis as the second generation and the present generation is represented in the analysis as the son's generation.

[6] Pito is a locally brewed alcoholic beverage.

Table 8.1 Household livelihood diversification across three generations

Generation	Common livelihoods
Grandfather's generation/ all generations	• Food crop farming • Poultry and livestock(small ruminants) farming • Pottery and moulding of earthen pots for storing water and grains common with women • Weaving baskets for harvesting crops commonly associated with women; and weaving hats and ropes associated with both sexes • Carving hoe handles, mortars and pestles, and handles of other simple tools. This is also commonly associated with men
Father's generation/son's generation	• Trade in poultry and livestock in market centres commonly associated with men • Blacksmithing—making hoe blades, simple bullock plough and donkey cart accessories and simple instruments commonly associated with men • Harvesting and processing of wild vegetables ('vonka') for sale in Yelwongo market commonly associated with women but also men in Taribisi section • Trade in grains between Yelwongo and Sirigu markets. This is a widespread activity commonly associated with women • Agro processing as in pito brewing, shea butter processing and local food vending • Butchering—processing fresh and boiled meat for sale in market centres and community squares. This is commonly associated with men • Migration as a source of livelihood • Wage labour at construction sites—commonly associated with both sexes
Son's generation	• Harvesting, storing and selling plant stalks associated with women • Retail in petty commodity provisions such as soap, matches, sweets, and kerosene commonly associated with both sexes • Harvesting and processing of wild vegetables ('vonka') for sale in Yelwongo market commonly associated with women but also men in Taribisi section of community • Head pottering tradable commodities between Yelwongo and Sirigu markets and homes commonly associated with women servicing foodstuff traders • Intermediate technology transport services involving the transportation of market commodities between Yelwongo and Sirigu markets and homes by the use of donkey carts and bicycles. This activity is commonly associated with boys • Use of bullocks for commercial ploughing commonly associated with bullock owners (men) and their sons or boys • Farm wage labour during the rainy season (especially weeding) within the community commonly associated with both men and women

In the son's generation, households maintain farming, which is, cropping, rearing poultry and livestock as an inherited primary livelihood and tradition. However, new crops and or new breeds are introduced into farming. Fewer households maintain handicrafts because some of the younger generation fail to uphold it

as a tradition, as a result of lack of interest. They maintain the livelihoods of the father's generation as described. In addition, wide ranges of livelihoods are included in household livelihood portfolios. These include head pottering, use of bicycles and donkey carts for transport services, harvesting and sale of plant stalks and bullock plough services.

To further show how livelihoods have diversified and changed over the three generations, two household livelihood profiles are presented as cases. These cases are drawn from *Yua*, one of the three study communities where an in-depth study was conducted as part of a large study. The cases include that of a male headed household, *Atanga* (case 1) and that of female headed household, *Abowine* (case 2).[7]

Case 1: Atanga's Household Livelihood Profile

Atanga is a 55 years old male head of a household in *Yua*. He lives with his three wives and children in their *Yire* (compound). Each wife and her children occupy a *deo* (household). In all, *Atanga* has ten children, eight of whom live with the family in the village. In this case, I will show the trend of livelihood diversification across the last three generations starting from the grandfather's generation, through the father's generation and ending with the son's generation. In this case, the son's generation is the current generation and represented by *Atanga*.

Grandfather's Generation

In his grandfather's generation, they cultivated food crops as their primary livelihood and supplemented this by poultry and livestock farming. For crops, they cultivated *ke-menka* (Sorghum), *Naara* (early millet), *Zea* (late millet), *Sumkam-menka* (groundnuts), Tɛa (beans) and *Nanugle-menka* (potatoes) mainly on their *Sammani* (compound farm). All these crop varieties were indigenous varieties and the production was mainly subsistence based. Food crop farming during this period was practiced exclusively as a collective endeavour of the family. *Atanga's* grandmother also planted indigenous vegetable crops such as *bitto* and *kenaf* as hedge plants on the *Sammani* mainly for household consumption.

Atanga's grandfather also reared poultry and livestock. For the poultry, these included fowls and guinea fowls. Fowls in particular were important not only for their protein value, but for their use in making religious sacrifices and for dowry. For livestock, he reared mainly goats and sheep. In this generation, rearing poultry and livestock was also a collective endeavour.

[7] Atanga and Abowine are dummy names. The true names of the heads of the families are not represented here.

For non-farm livelihoods in this era, *Atanga's* mother did pottery and wove traditional baskets but these were mainly for household use only. Traditional earthen pots were used for storing water and grains at home for use while the traditional baskets were used for harvesting crops.

Father's Generation

Atanga's father's generation cultivated food cops as the primary livelihood and also supplemented crops with poultry and livestock farming. This generation cultivated the same indigenous crop varieties as the grandfather's generation. However, this era saw the introduction of new crop varieties and ditching of certain indigenous varieties arising of the need for adaptation to climatic change and land degradation. For instance, ke-menka a traditional sorghum variety was replaced by *Talenga*, a relatively new sorghum variety adaptable to drought. Similarly, a new crop such as the cultivation of maize was introduced.

During this generation, food crop farming was still largely practiced as a collective endeavour of the family or household—Atanga's mother also began to cultivate some few crops on her own. These gendered crops (female) generally included groundnuts, rice and soya beans. As a norm, individualization of the cultivation of these crops serves a dual purpose—meeting household needs and personal needs of farmers.

As a family tradition, *Atanga's* father also reared poultry and livestock. He also reared fowls and guinea fowls. For livestock, he reared mainly goats and sheep. In this generation, poultry and livestock rearing was also largely a collective endeavour of the family.

For non-farm livelihoods, *Atanga's* mother continued the tradition of pottery and weaving baskets mainly for household use. In addition, she brewed *pito* for sale in the *Yua* market.

Son's Generation

Food crop farming, poultry and livestock continue to be practiced as a family tradition. In the son's generation, *Atanga* himself cultivates food crops as the primary livelihood and supplements this with poultry and livestock. Although crops, poultry and livestock farming continue to be practiced as largely a family endeavour, there is more social differentiation in the ownership of crops, poultry and livestock. The household cultivate *Naara* (early millet), *Zea* (late millet), Talenga (sorghum), *Kamaana* (maize) *Sumkam* (groundnuts) and Tɛa (beans) on *Sammani* and *Moom* fields. A new and early maturing variety of potatoes, *Gerigo* is introduced into the portfolio of crops. *Atanga's* wives also plant groundnuts, soya beans and rice on their own for meeting their personal needs but also for household consumption. In the same light, *Atanga* himself also plants soya beans as a cash crop on his own.

As stated, *Atanga* also rears poultry and livestock and this is a practice the run through all the generations. However, his grandfather and fathers generations had more poultry and livestock than his generation. At the time of the interview, he had 13 goats, 6 sheep, a pair of bullocks, 2 female cows and a calf and just a few birds (fowls and genuine fowls). He also had a donkey and its cart for transportation of farm produce. A few more fowls and goats belonged to his wives and children—although customarily he needs to be consulted on them. According to him, each of his wives owns at least a fowl. Some of them have a goat or more, which the children cater for. Even the children also have their own fowls and goats their mothers support them to rear.

In the current generation, *Atanga's* household is also involved in a wide range of non-farm activities. *Atanga's* first and third wives are involved in the processing and trade of malt used for brewing *Pito*. They often buy the sorghum for malt preparation from *Guelwongo* market in Burkina Faso. In addition, *Atanga's* third wife also brews *Pito* for sale in the daily *Yua* market and at social events such as funerals. The second wife makes groundnut oil and cakes ('*kulikuli*') for sale in the daily *Yua* market. One of Atanga's son uses the donkey and cart for providing local transportation services of goods for traders between homes and markets (Sirigu and Guelwongo markets). The proceeds are shared between him and for meeting certain household needs.

Migration is an important source of livelihood for *Atanga's* household. Neither *Atanga* nor any of his wives is personally involved in migration. *Atanga's* most senior daughters migrate to Accra during the off-farm season to engage in wage labour commonly known as '*ka ya ye*' (head pottering) or washing dishes in local restaurants popularly known as '*chop bars*'. She usually leaves for Accra soon after harvest (November) and returns during the planting season (June). On her return, she brings with her second hand clothes for some family members. She also brings some money part of which is given to her mother (*Apogbire*) for the purchase of grains for family consumption. Supplementary foodstuff purchases from nearby *Guelwongo* market (Burkina Faso) or *Sirigu* market (Ghana) is an annual practice for meeting part of the consumption needs of the household.

I shall now turn my attention to the second case, *Abowine's* household livelihood profile.

Case 2: The Case of *Abowine's* Household Livelihood Profile

Abowine is a 50 years old widow. She has been a female head of household for 15 years. She and her husband returned from southern Ghana (returned migrants) to settle in *Yua* some 25 years ago. *Abowine* has three children. The senior son migrated to southern Ghana where he cultivates maize in a remote village. The junior son also migrated to southern Ghana (Obuasi) where he is a casual labourer. The daughter had just completed JHS and awaiting placement in SHS. *Abowine* lives with her daughter and sometimes her teenage grandson who visits frequently.

Grandfather's Generation

Abowine recounts that the grandfather's generation cultivated food crops as their primary livelihood. They cultivated mainly indigenous crop varieties including *Naara*, *Zea*, *ke-menka, Tɛa-menka* (beans) and *Sumkaam-menka* on their *Sammani* and *Boo*.

She also recalls that the generation reared poultry, including fowls and guinea fowls. For livestock, they only reared goats.

Abowine's grandmother in-law did pottery and wove baskets; but these were mainly for domestic uses. Aside this, the grandfather's generation did not engage in any other form of nonfarm livelihood. They were mainly food crop, poultry and livestock farmers.

Father's Generation

According to *Abowine*, the father's generation cultivated food crops as their primary livelihood too. They cultivated mainly traditional crop varieties—including *Naara*, *Zea*, *ke-menka, Tɛa-menka* (beans) and *Sumkaam-menka* on three different farms, *Sammani*, *Boo* and *Daboo*. Her mother in-law also planted *Mŭŭ kiliga*, a traditional rice variety on her *Boo* along nearby river (*Akulaa*) in the community.

This generation also reared poultry and livestock but the focus was on poultry—fowls and guinea fowls. He also reared small ruminants including goats and sheep. According to *Abowine*, her father in-law had far more poultry and small ruminants than what she and her late husband had.

According to *Abowine*, her mother in-law did pottery but this was mainly for home use.

Son's Generation

Abowine's household cultivates food crops, including Naara, *Zea*, *Talenga* and some vegetables (okro and kenaf) on her *Sammani*. She also plants *Sumkam*, Wogro and rice on a *Boo* (river bank farm).

Abowine also rears poultry and livestock as a supplementary livelihood for her household. At the time of the interview, she had two hens and no guinea fowls. She lost all her guinea chicks to diseases. She also had one (1) sheep and no cattle. She had no goats as she had sold all of them to buy grains in the past. She recalls that when her husband was alive, they had about five (5) cows, four (4) goats and more poultry than she has now. She laments the lack of grass for grazing and sufficient water for watering animals in the dry season.

Abowine is also involved in non-farm livelihoods. She weaves ropes to generate income for purchasing grains in the dry season, a practice commonly known as *Puuliga*. Previously, she traded in maize but stopped due to old age. At that time,

she bought maize from *Bolgatanga* (regional capital) market and retailed the grains in *Guelwongo* market in neighbouring Burkina Faso.

Migration is also an important source of livelihood for *Abowine's* household. She does not migrate herself but she gets support from her migrant son. Accordingly, her senior son who settled to farming in *Abofor*, a farming community in southern Ghana 9 years ago support her to meet food needs of her household. He pays annual visits during which he supports purchase of foodstuff. For instance, he buys a bag of maize every year. He also remits (about GH¢ 40.00) for purchase of foodstuff from time to time.

From both the cases of *Atanga* and *Abowine's* household livelihood profiles, two patterns emerge. First, food crop farming, poultry and livestock run through as the primary livelihoods across the three generations. This gives credence to the assertion that farming is a culture and closely tied to the life of the people. The second pattern is that, livelihood portfolios increase in diversification from the grandfather's generation to the son's generation in the area of non-farm livelihoods. Simply put, the son's generation have more diversified livelihoods than the father's generation. Similarly, the father's generation of households have more diversified livelihoods than the grandfather's generation.

Reducing Incidence of Food Crop Farming as a Primary Livelihood

The second pattern about household livelihoods is that there is a gradual intergenerational decline in the number of spouses engaged in food crop farming as a primary livelihood although food crop farming still remains the primary livelihood of most households across the three generations (Fig. 8.3).

The analysis shows a gradual and consistent reduction of the incidence of spouses engaged in food crop farming as a primary livelihood across the three generations at the household level (Fig. 8.3). For male spouses, 90 % engaged in food crop farming as a primary livelihood in the grandfather's generation but this declined to about 80 % among son's generation. The decline is even more dramatic among female spouses than male spouses. For female spouses, the percentage fell from about 90 % among the grandfathers generation to about 70 % in the fathers and sons generations. The reasons are not far-fetched. Crop yields fluctuate and in many instances fail due to environmental factors. Unlike the past in which surpluses were common, harvest is insufficient for household consumption these days. This partly explains the declining interest among spouses in food crop farming as a primary livelihood; although they may still engage in it as a secondary livelihood.

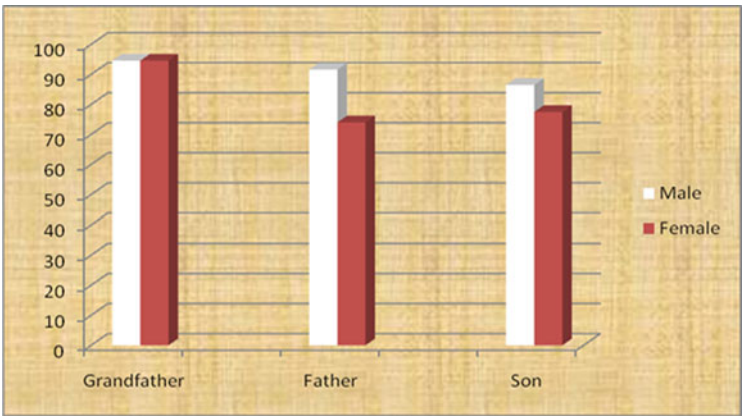

Fig. 8.3 Reducing incidence of food crop farming among spouses as a primary livelihood. *Source*. Field Survey (2008)

Increasing Incidence of Spouses Engaged in Non-farm Enterprises

In the wake of increasing diversification of livelihoods, one clear pattern is the increasing incidence of spouses preferring and or engaging in non-farm enterprises, particularly trade across the three generations (Fig. 8.3). From the analysis, the incidence of spouses engaging in trade has increased consistently over time across the three generations in the quest for household livelihood diversification. Results from the household survey reveal increasing preference for trade among both male and female spouses in household livelihood portfolios (Fig. 8.4).

From the analysis, trade is the commonest non-farm livelihood across all generations. The incidence of spouses engaged in trade has risen consistently from generation to generation. For instance, 16 % male spouses engaged in trade in the grandfather's generation. This increased to 18 % in the father's generation and to a further 27 % in the son's generation (Fig. 8.4a). The rate of increase is even higher among female spouses. The percentage of female spouses engaged in trade was 15 % among the grandfathers generation. This increased to 18 % in the father's generation and to a further increase of 35 % among female spouses of the son's generation (Fig. 8.4b).

Livelihood Diversification, Local Knowledge and Endogenous Development

The results are discussed in this section. The discussion establishes the link between livelihood diversification, local knowledge and endogenous development.

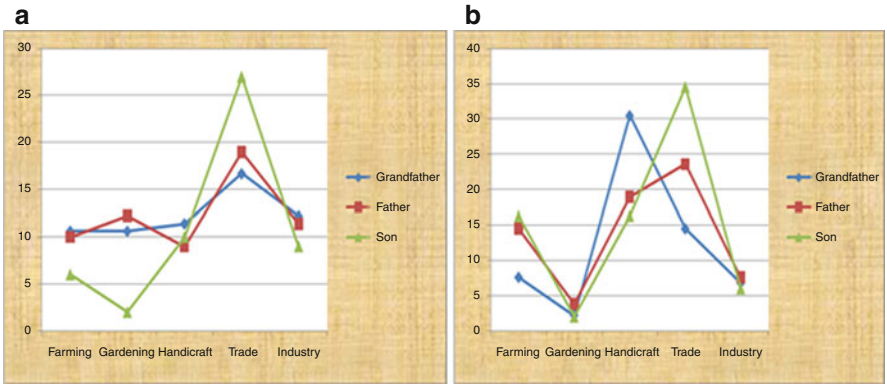

Fig. 8.4 Increasing incidence of spouses engaged in trade and handicraft. (**a**) Male spouses, (**b**) Female spouses. Source: Field Survey (2008)

First, there is increasing diversity in household livelihood portfolios. Clearly, the diversity of livelihoods increase gradually as one examines livelihood profiles of households from grandfather to son's generation. Such diversification in livelihoods is part of the response measures of households for addressing the internal side of 'vulnerability', thus for enhancing their abilities to anticipate, cope with and recover from the impact of environmental change on their livelihoods (Chambers 1989, p. 1; Bohle 2001). Diversification is intrinsic to the basic nature of rural household livelihoods. It is such diversification Ellis (1998) describe as involving the *construction of a diverse portfolio of activities and social support capabilities*.

Secondly, spouses, especially female spouses are gradually disengaging in food crop farming as a primary livelihood although it still remains a primary livelihood for most households. In both the household livelihood profiles of *Atanga* (case 1) and *Abowine* (case 2), food crop farming is the primary livelihood across the three generations of the household. This pattern is typical of most households in the basin. From the survey, 80 % of households cultivated food crops as their primary source of livelihood. The respondents covered in the survey were the present generation peers of *Atanga* and *Abowine*. In livelihood analysis, it is common to examine the contributions of various livelihoods to total household expenditure as a way of understanding the relative importance of each livelihood to the household (Van der Geest 2004; Yaro 2004). From the livelihood portfolios of *Atanga* and *Abowine*, food crop farming is the main source of grains (food) for household consumption for most part of the year. In general, households depend on their own cultivated grains for about 8 months, usually between September (harvest season) and April (warm season). This corresponds with the period Yaro classified as 'food secure' in his analysis of individual food security situations in *Chiana*, a village close to the *Atankwidi* basin (2004). The inability of households to secure their livelihoods through farming alone is the reason some spouses are disengaging in farming as a primary livelihood.

Thirdly, in response to the limits of food crop farming, individual members of the household, including spouses have resorted to engaging in a wide range of livelihoods. Most of these livelihoods are non-farm livelihoods constituting the most varied and largest number of secondary livelihoods among households in *Yua* and the basin at large. In the case involving *Atanga's* household livelihoods, his three wives are involved in agro-processing activities namely—malt processing, *pito* brewing, groundnut oil extraction and groundnut cake making (*kulikuli*). In the case of *Abowine*, she weaves ropes for sale and previously traded in maize. In addition, focus group discussants list a wide range of nonfarm livelihoods commonly associated with household in the basin (Table 8.1). These include sale of plant stalks, pottery, weaving, blacksmithing, carving, butchering, trading, head pottering, transport services, commercial bullock ploughing and providing wage labour.

Furthermore, livelihood diversification is essentially an embodiment of the local knowledge of rural households. For instance, the results show that livelihoods of a typical rural household in the basin comprise multiple livelihood portfolios. Among these, food crop farming is a primary livelihood but often goes in hand with poultry and livestock rearing. This is the basic knowledge of livelihood of the household that is passed on from generation to generation. Most of this is indigenous knowledge as in the cultivation of indigenous crop varieties, use of traditional forms of farms and in the general culture of farming in its entirety. Thus, food crop farming is part of the culture of the people, ancestral heritage and indigenous knowledge.

The results also show changes in household livelihood systems. These changes range from a modification of livelihood systems to shifts in livelihood types. In the area of food crop farming in the son's generations, external knowledge as exemplified by new crop varieties were introduced and adapted to local situations as in the cultivation of *Talenga* (sorghum), *Gerigo* (potatoes) and '*agriki*' *kemenka* (maize). That apart, diversity in non-farm enterprises expanded rapidly between generations. In this drive, livelihoods have expanded from agro-processing industries to service related industries mainly drawing on local resources and opportunities that a changing local environment presents. Similarly, migration has risen to prominence as an important source of livelihood and this again is driven and shaped by local networks that help people explore opportunities within the immediate and distant changing environments. In general, these patterns in household livelihood diversification and change reflect the dynamic and strategic nature of local knowledge (Sikana 1994, p. 82; Gerke and Ehlert 2009, p. 6). It is through such diversification that they have made strides towards environmental and social sustainability in household livelihoods (Chambers and Conway 1992).

Thus far, the discussion underscores that: there is increasing diversification of household livelihood portfolios and that this diversity is driven by local knowledge systems; there is a gradual decline of the importance of food crop farming for household livelihood sustainability; trade is fast becoming an important livelihood for household livelihood sustainability; the dynamics of household livelihoods systems are an embodiment of the local knowledge of the people; and finally, that

these dynamics and patterns in livelihood diversification are essentially akin to an Endogenous Development approach in the *Atankwidi* basin.

This chapter therefore, posits that the totality of knowledge systems that households employ for reducing livelihood vulnerability to environmental change in the *Atankwidi* basin is akin to endogenous development in Africa in that:

- Livelihoods of households are predominantly an expression of the indigenous knowledge systems of livelihoods in the basin and passed down from generation to generation;
- The livelihoods systems are heavily depended on the indigenous knowledge systems the areas of farming and agro-processing
- The livelihood systems largely draw on local resources and knowledge within the immediate and immediate external environment.
- That indigenous knowledge systems have been dynamic and changing whenever necessary, and to a limited extend drawing on external knowledge and resources for adaptation to local situations.

Conclusion and Policy Recommendations

In this chapter, livelihood diversification, a central household strategy for addressing livelihood vulnerability to physical environmental change is discussed as an embodiment of the tacit local knowledge systems of households in the *Atankwidi* basin in north-eastern Ghana. The discussion explores deeper insights into the dynamics of household livelihood diversification from an intergenerational perspective and how these are shaped by indigenous and local knowledge systems.

The patterns clearly show that food crop farming is the primary livelihood across three generations of households; except that there is a gradual decline in its importance from generation to generation among household portfolios in terms of the number of spouses engaged in it as a primary livelihood. The decline is sharper among women than their male spousal counterparts and the vulnerability of food crop farming to environmental change, including climate change is to blame for this pattern.

In place of this, there is increasing diversification in household livelihood portfolios between generations and that the pattern in diversification shows an expansion of household livelihoods from primary agriculture, to agro-processing and to the provision of services as one takes a cursory look at livelihoods from the grandfather's generation through to the son's generation. Within the domain of these non-farm livelihoods, trade in agriculture commodities have become a prime non-farm livelihood among spouses, with more female spouses engaged in such trade than their male counterparts.

Given the dynamics of livelihood diversification and their interconnectedness with indigenous and local knowledge systems and resources, the author concludes

that patterns in livelihood diversification are shaped by an African world view akin to Endogenous Development (ED). Livelihood diversification draws on local resources and proceeds with subsistence agriculture as the primary livelihood of the household and to non-farm livelihoods—all shaped by the culture of the people, and expressly, as a tacit embodiment of the local knowledge of the people in the basin.

Broadly, a two prong policy approach to environmental change adaptation planning through District Development Planning (DDP) is most appropriate. On the one hand, policy measures should help with addressing vulnerability of food crop farming to environmental change and on the other hand provide an enabling policy environment for the sustainability of non-farm livelihoods. This can better be achieved through an overarching policy framework for supporting development and application of local knowledge systems for reducing local level vulnerability and enhancing adaptation to environmental change.

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Chapter 9
Contextual Issues in Health Care Financing in Africa: Drawing on the Ghanaian Experience

Ebenezer Owusu-Sekyere and Issaka Kanton Osumanu

Abstract The search for appropriate policy of financing healthcare in Africa in general is far from over. However, Ghana, unlike many of the emerging economies in sub-Sahara Africa, has made great strides in this area of policy formulation and development with the introduction of a National Health Insurance Scheme (NHIS). Ghana's search for an acceptable policy on healthcare financing dates back to the colonial era and the immediate post-independence period through the 'cash and carry' system to the present health insurance regime, which is still seeking refinement to meet the hopes and aspirations of many Ghanaians. The main objective of the NHIS is to provide equitable and universal access to essential healthcare for all citizens. This paper examines the tortuous path of health care financing policies in Ghana by outlining its historical antecedents and current perspectives.

Introduction

One core issue that continues to stir debates around the world is health care financing. For this reason, many low and middle income countries are still exploring different ways of financing their health systems. This is due to the fact that their health systems are chronically under-funded (James et al. 2006). With increasing funding gaps and diminishing known sources of funding and the drive for universal

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coverage, Social Health Insurance (SHI) becomes appealing. It is seen as a way of removing the impact of health expenditure on the poor, protecting health spending in the health sector and facilitating increases in health resource availability. It also holds the potential for promoting a more efficient health system (Centre for Health and Social Services 2011). Whereas the advance countries like the USA, Spain, Australia among others have a strong health care financing schemes of varied frameworks, countries in sub-Sahara Africa are yet to get out of the woes. Few examples here will suffice, In Australia, the first compulsory public insurance scheme started in the early 1970s and this covered the elderly and some poor people in the society (Deeble 1982). In Spain, more than 20 % of health care financing is accounted for by social insurance and about 21 % by private insurance companies (The World Health Report 2000), while social insurance contribution dominates health care financing in Germany and France. About 50 % of funds toward health care in Italy are dependent on social insurance, with 10 % from private insurance and patient charges (Arah et al. 2003). In the examples given, reforms had focused mainly on containing costs. In African countries, reforms have been and still being motivated by growing demand for better health care and therefore the debate revolves around ways of improving the sustainability, equity, and effectiveness of health care services (AU 2009). The health financing crisis facing Sub-Saharan Africa is particularly acute because of the magnitude of the epidemiologic, demographic, and macroeconomic challenges within the region. Schieber and Maeda (1999) indicated that developing countries accounted for 84 % of the world's population and 93 % of the worldwide burden of disease. However, they account for only 18 % of global income and 11 % of global health spending. Most developing nations are plagued by problems of under nutrition and a host of infections.

In Africa, healthcare demands are changing, making healthcare systems to be at a turning point (The Economist Intelligent Unit 2012). Although there is a growing urban middle class willing to pay for better treatment, which has opened the door to the private sector provision of services, the vast majority of Africans are still unable to pay for healthcare delivery. The continent, already home to some of the world's most impoverished populations, is confronting multiple epidemiological crises simultaneously. High levels of communicable and parasitic disease are being matched by growing rates of non-communicable diseases such as Hypertension and Kidney infections. Although the communicable diseases—malaria, tuberculosis, and above all HIV/AIDS—are the best known, it is the chronic conditions such as obesity and heart disease that are looming as the greatest threat. These are expected to overtake communicable diseases as Africa's biggest health challenge by 2030 (The Economist Intelligent Unit 2012).

The major concerns of various governments and policy makers have always been the best mix of financing schemes that can make the desire socio-economic impact as many of the citizenry are operating outside the Venn diagram of formal employment. As a result, new models of healthcare financing are being sought. The reforms that governments undertake over the next decade will be crucial to cutting mortality rates and improving health outcomes on the continent. Crucially,

improved health not only benefits individuals but also benefits the broader society, accelerating economic growth and development. In recognition of this, most countries in sub-Saharan Africa including Ghana, have developed and implemented several health financing polices aimed at improving their citizens' health status (Allotey 2012). In line with the growing international interest in pursuing healthcare financing options that promote universal coverage, Ghana adopted a National Health Insurance Scheme (NHIS) in 2003 to finance healthcare delivery. A prominent expectation of the NHIS arrangement is to narrow the inequality gap by providing financial insulation to individuals and households and to ensure affordable and sustainable health care arrangement for the poor. The trump card of the NHIS, unlike the cash and carry system, is the opportunity it provides for risk pooling and cross-subsidization of healthcare expenditure of certain category of Ghanaians classified as vulnerable. These people are giving fee exemptions that allow them to benefit from healthcare services that hitherto would have been inaccessible to them. This insulates them from suffering directly the perverse impact of healthcare expenditure and low access to healthcare services.

As an evolving policy, it is still going through refinements to capture the hopes and aspirations of Ghanaians. Though the National Health Insurance Scheme is at the teething stage, it is fraught with challenges which if not addressed; the policy might not fully serve the intended purpose.

This research examines the tortuous path of health care financing policies that have been implemented in Ghana and teases out the contextual issues that are challenging the current healthcare financing policy regime. Crucial issues that are discussed are the equity implications and the major implementation challenges of the different financing mechanisms over the years. The study is organized in four main parts. The subsequent section outlines the conceptual framing, which draws on the Hsiao framework. The research further highlights the state of healthcare financing in Ghana before 2003. The Search for Sustainable Healthcare Financing received critical consideration in the third sections while the final section provides the Drawbacks of the National Health Insurance Scheme.

An Overview Hsiao's Framework

Hsiao's framework is explicitly more analytical than descriptive. Hsiao (2003) aimed to develop a conceptual framework that modelled the role of health financing within the systemic aspects of the health system, i.e. the major components of a health system that can explain aggregate outcomes. He describes this as a causal model whose major components (i.e. explanatory variables) could largely account for observed outcomes (i.e. dependent variables). Within such a 'mixed health system', where some poor people seek care from private practitioners, Hsiao listed four causal financing and delivery mechanisms that can improve access to, availability, and quality of health services (Dimovska et al. 2009). Hsiao mentions the

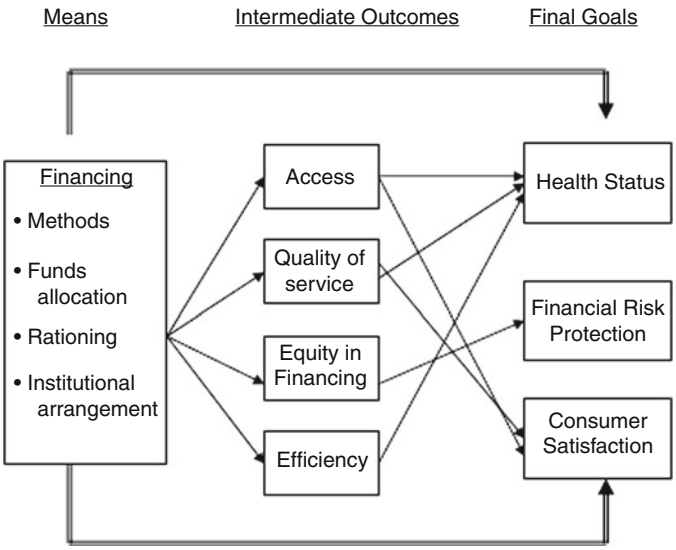

Fig. 9.1 Relationship between financing instruments and goals. *Source*. Hsiao (2003)

four intermediate variables that could explain the system's outcomes as: Access, Quality of services, Equity in Financing and Efficiency, see Fig. 9.1.

The central government plays a leading role in implementing some of these mechanisms, but private sector actors can also employ these mechanisms, in partnership with government. In a more practical manner, both government and the private sector can employ these mechanisms in service delivery to reduce costs, increase access, and improve quality; risk-pooling to minimize out-of-pocket payments and increase access by pooling risks across populations; self-regulation to create a branding benefit for providers and incentivize greater quality; and supply chain mechanisms to ensure access to quality medicines and enable rapid scale-up (Hanson 2004). Programmes that have been implemented within this framework cover a broad spectrum of interventions that address specific challenges common to many developing countries, including reducing the fragmentation of private providers (franchises and provider networks), changing provider incentives and improving monitoring (accreditation and licensing models and insurance or voucher programmes), and providing subsidies for targeted populations and high-impact interventions (public and private risk-pooling programmes) (Loevinsohn 2006).

The Hsiao framework focuses more on policy levers and drivers and highlights connections between the different elements. In this way, the different health financing functions are described in terms of causal links, rather than through the funds flow. While Hsiao has emphasised in other works the strong impact of the macroeconomic environment on health financing and health policy, there is less reference in this framework to contextual factors, though there is greater

recognition of multiple, potentially competing, objectives and of the need to balance the impact on different objectives in policy making (Murray and Evans 2003).

In a recent series of papers examining qualitative methodology of healthcare financing (Willis et al. 2007), emphasised the importance of this theory in qualitative health research. They noted that the theory provides structured interpretations or models for investigating and understanding a social problem including healthcare financing. They explain the importance of this framework by saying that the theory provides a framework for structuring healthcare studies and plays a central role in data collection and analysis. And they argue that the use of theory in a study provides the essential link to the theoretical literature and allows researchers to assess the extent to which the results can be extended to other settings and contexts.

Similarly, McPake and Mills believes that the conceptual frameworks provides the basis for the development of hypotheses on causal links in health financing, and thus determine what data are collected and seen as relevant and how the data are subsequently analysed. This is particularly relevant to cross-country comparative research (McPake and Mills 2000). McPake and Mills (2000) argue that as international comparative research accumulates, models of the relationships between policy variables and outcomes are constructed and amended; this model facilitate comprehension of critical variables that influence policy outcomes.

In applying the theory, one should recognize that a disconnect between the means and any of the intermediate outcomes in Fig. 9.1 will negatively affect the goal of the policy. Again, the universal application of this theory could also be affected the local conditions of the implementing country (Mossialos et al. 2007).

This framework has greater relevance for understanding health financing within broader health systems, such as in systems analysis and cross-country comparisons, where common measures are needed. The Hsiao approaches provide a framework for identifying the key financing components and their place within the health system (WHO 2009). This framework adequately illustrates general principles. The current frameworks adequately define the elements and the information needs for description and analysis of health financing functions (OECD, Eurostat and WHO 2009).

Healthcare Financing in Ghana Before 2003

Health financing in Ghana Prior to independence was predominantly by out-of-pocket payments at point of service use (Arhinful 2003). Following independence and in the early days of post-colonial period, the goals of many African governments including that of Ghana, were to establish a developmental state, achieve rapid socio-economic development and defeat the trinity of ignorance, poverty and disease (ISSER 2012). In line with the socialist agenda under the First Republic, from the late 1950s up to 1966, healthcare financing in Ghana was virtually free as

was education and other social services. There was recognition of linkages and synergies between economic and social policies and broad-based policies on health and other social services that were put in place (ISSER 2012). Following the overthrow of the First Republican government, healthcare financing in Ghana saw a complete 'u-turn'. The military-cum-civilian junta made Ghanaians to pay for their healthcare needs and private sector health services continued to be paid for by out-of-pocket fees at point of service use.

The overthrow of the Government of the First Republic in 1966 set the tone for military involvement in governance and leadership which triggered a series of coup d'états leading to political instability in the country. The increasing involvement of the military in governance stagnated the country's economic growth and led to eventual economic deterioration. The implication was that by the early 1970s, general tax revenue in Ghana could not support a tax-based health financing system. Consequently, there was a reversal in the gains made in the health sector. The result was that in 1972, out-of-pocket fees at point of service use were introduced in the public health sector to discourage frivolous use, though this was done in limited circumstances.

By the early 1980s, Ghana's economy was in an advanced state of collapse. Per capita gross domestic product (GDP) showed negative growth throughout the 1960s and fell by 3.2 % per year from 1970 to 1981. Most important was the decline in cocoa production, which fell by half between the mid-1960s and the late 1970s, drastically reducing Ghana's share of the world market from about one-third in the early 1970s to only one-eighth in 1982–1983 (Ghana Statistical Service 2003). At the same time, mineral production fell by 32 %; gold production declined by 47 %, diamonds by 67 %, manganese by 43 %, and bauxite by 46 %. Inflation averaged more than 50 % a year between 1976 and 1981, hitting 116.5 % in 1981. Real minimum wages dropped from an index of 75 in 1975 to one of 15.4 in 1981. Tax revenue fell from 17 % of GDP in 1973 to only 5 % in 1983, and actual imports by volume in 1982 were only 43 % of average 1975–1976 levels (Aryeetey and Codjoe 2005). Thus productivity, standard of living, and available government's resources plummeted dramatically.

The near-collapse of the country's economy was accompanied by a decline in the health sector. There were widespread shortages of essential medicines, supplies and equipment, and poor quality of care. In 1983, Ghana adopted the traditional IMF and World Bank economic recovery programme also known as the cash and carry system.

In 1985 the Bamako Initiative, adopted as a global policy supporting user fees, advocated for cost sharing and community participation to increase the sustainability and quality of health services. The level of fees differed from patient groups, applied to different services and charged at different levels between public and private facilities or primary level and hospital levels to cover all or part of the cost of services provided (Gilson and Raphaely 2008). The World Bank in 1987 justified the rationale for charging user fees as providing the additional revenue that could be used to improve efficiency and equity; reduce frivolous demand and encourage the use of low cost primary health care services (World Bank 1987). In the case of

Ghana, the primary aim was to recover at least 15 % of recurrent expenditure for quality improvements. According to a Ministry of Health (MoH) report, the financial aims of this policy were achieved (Ministry of Health 2004). Shortages of essential medicines and some supplies improved. However, these achievements were accompanied by inequities in financial access to basic and essential clinical services.

The challenge in the 1980s to the early part of the new millennium was how to find the best combination of Government-Peoples-Partnership that would meet each other part of the way and satisfy the needs and pockets of care seekers as well the Government's finances in the healthcare sector. Under the 'cash and carry' system, patients were required to pay for drugs and some medical consumables, as and when they visit healthcare facilities, while the state bore all other costs including consultation, salaries and emoluments for health workers in public facilities. 'Cash and carry' also provided for free medical care for the aged above 70 years, children under 5 years and pregnant women for their ante-natal care, all under an exemption programme implemented with the system. The net effect of the system was that patients went to hospital only when they were very sick and had money to readily meet their side of the bargain of paying for those stipulated expenditures. In effect, 'cash and carry' constrained citizens from assessing healthcare except when they were in very dire situations resulting in needless deaths.

The Search for Sustainable Healthcare Financing

The search for an alternative to 'cash and carry' as a means of healthcare financing in Ghana began in the mid-1990s but could not materialize for implementation though the foundation was laid with some pilot projects in the Dangme West District in the Greater Accra Region and Nkoranza District of the Brong Ahafo Region. These pilot schemes were meant to lay a firm foundation for what was eventually expected to become the National Health Insurance Scheme (NHIS). The National Health Insurance Scheme (NHIS) is a social intervention program intended to provide financial risk protection against out of pocket healthcare expenditure for all residents in Ghana. The first community health insurance (CHI) scheme in the country was the Nkoranza health insurance scheme started by the St Theresa's Catholic Mission Hospital in 1992. It proved popular and endured the test of time (Atim et al. 2000). In the mid-1990s, a unit was created in the Ministry of Health (MoH) to establish a national health insurance as an alternative to 'cash and carry'. The unit focused its efforts and resources on consultancies and feasibility studies for a pilot social health insurance (SHI) scheme for the formal sector and organized groups such as cocoa farmers in the Eastern region. Unfortunately, the proposed SHI pilot could not stand the test of time as it collapsed, without insuring anybody, by the end of 1999. No public acknowledgement or explanation was given for its demise. However, the pilot scheme might have collapsed partly due to lack of effective leadership, consensus

and direction within the MoH as well as a failure to sufficiently appreciate the difficulties of implementing a centralized social health insurance in a low-income developing country (Arhinful 2003).

Following the demise of the Eastern region pilot, the social security and national health insurance trust (SSNIT) started planning for another centralized health insurance scheme to be run by a company called the Ghana Health Care Company. Like the Eastern region pilot, it never took off despite some public expenditure on personnel, feasibility and software. This notwithstanding, the zeal and the determination of the government of Ghana to succeed in providing some form of social protection in the health sector culminated in a lot of exploratory research on the feasibility of district-wide community health insurance (CHI) for the non-formal sector in the Dangme West (Arhin-Tenkorang 2001), a purely rural district with a subsistence economy and widespread poverty in 1993. The study had strong funding from UNICEF and enjoyed enormous support and collaboration from both the MoH and the community members. At the local level, the district health directorate and research centre, the district assembly (local government) and communities continued their collaboration and completed the design of the pilot CHI scheme. The district assembly contributed part of its UNDP poverty reduction fund to support community mobilization and household register development, and WHO, AFRO and DANIDA provided start-up funding. Registration of beneficiaries and delivery of benefits started in October 2000. Funds for the continuous implementation and evaluation were provided by the Ghana Health Service (GHS) and the MoH (Agyepong and Adjei 2008).

The success of the Dangme West District's CHI led to the establishment of several other CHI schemes, but this time called Mutual Health Organizations (MHOs), in many other parts of the country. Their rate of development accelerated exponentially after 2001 (Baltussen and Niessen 2006). According to Atim et al. (2000), many of these CHIs were sponsored by faith-based organizations with support from development partners such as DANIDA (Danish International Development Assistance) and PHR-plus (Partnership for Health Reforms plus), an organization funded by the United States Agency for International Development (USAID). These two organizations also jointly supported the development of a training manual for administrators and governing bodies of MHO who were initially very prominent in the Brong Ahafo and Eastern regions. Also, the Christian Health Association of Ghana (CHAG), represented mainly by the Catholic Church, had many mission facilities in these regions and actively supported the growth of MHOs around its facilities. The regional and district directors of health and district assemblies also took an active interest in the development of MHOs.

In March 2001, the Minister for Health inaugurated a seven member ministerial health financing task force. Members of the taskforce included personnel from the MoH, Ghana Health Service (GHS), the Dangme West District Health Directorate and Research Centre, Trades Union Congress and the Ghana Health Care Company who were remised to have some technical knowledge on the subject. The terms of reference of the task force were to support and advise the MoH on the development of a National Health Insurance Scheme (NHIS), the building up of systems and

capacity for regulation of health insurance in Ghana, the development of appropriate health insurance legislation, and the mobilization of extra resources to support national health insurance.

The development of the current National Health Insurance Scheme began with Ghana's decision to access the highly indebted poor country (HIPC) initiative in March 2001. Among the areas where the government of Ghana was to expend the funds that would accrue from the HIPC initiative included funding of projects for poverty reduction and economic growth (Ghana 2003). Inclusive of the areas that were to benefit from the initiative was the expansion of the social protection basket of the nation with much emphasis on protection of the poor and marginalized, with special reference to women and children. To this end, the MoH in February 2003, allocated some of the HIPC funds to support the creation of government sponsored MHOs in all districts where they did not exist. By July 2003, the final version of the national health insurance bill (Act 650) was placed before the legislature for considerations and approval to be passed into law.

The bill required the formal and the in-formal sector to enroll together in government-sponsored district MHOs. After the passage of Act 650 of 2003 and Legislative Instrument 1809 of 2004, a National Health Insurance Council was established to govern the NHIS. The object of the Council was 'to secure the implementation of a national health insurance policy that would ensure access to basic healthcare services to all residents' (Ministry of Health, Ghana 2004). Its responsibilities included registration, licensing and regulation of health insurance schemes, and supervision of their operations. It was also responsible for granting accreditation to private healthcare providers, monitoring their performance, and ensuring that health care services rendered to beneficiaries were of good quality. A chief executive officer and supporting secretariat were to support the National Health Insurance Council in the execution of its functions.

The national health insurance scheme is financed by individual premium payments and a 2.5 % National Health Insurance Levy which is collected using the same mechanisms as the already existing 12.5 % Value Added Tax (VAT). In addition, 2.5 % of formal sector worker contributions to the Social Security and National Insurance Trust (SSNIT) towards retirement benefits were automatically transferred to the national health insurance fund on a monthly basis. The minimum benefit package covered almost all outpatient care, investigations and drugs, many dental and eye services as well as most inpatient care including the cost of a general ward and meals. All Ghanaians under 18 years are exempted from payment of premiums based on the hypothesis that there are enough adults above 18 years who would pay premiums to add to the National Health Insurance Levy and the 2.5 % SSNIT contributions to carry the financial burden of those below 18 years.

As expected, a major policy development like this will not pass without scrutiny and dissenting views from all shades of opinions including that of civil society groups, politicians, development partners and many others. The major disquiet expressed by organized labour groups over the policy was the channelling of 2.5 % of their monthly SSNIT contributions into the national health insurance fund with no clear reciprocated benefit to workers. It appeared to be assumed that

their hard earned savings, through deductions for the future were being stashed away. In response to these agitations from organized labour, the legislature modified the bill so that as a benefit for giving up some of their social security funds, formal sector workers did not need to pay a premium to be covered by the district-wide mutual health insurance schemes (MHIS'). This arrangement did not however go down well with organized labour groups. They felt the deductions would affect the long-term viability of the social security fund and pension payments. These concerns were part of longstanding concerns in the formal sector over low and inadequate pension payments and poor management of pension funds. They wanted to be allowed to organize social health insurance with separate payroll deductions that would exclude their SSNIT contributions, and not lump them into district-wide MHIS' with the informal sector.

Again, concerns were expressed about the functions of the National Health Insurance Council as being too wide and sweeping, and likely to end up creating an expensive and unwieldy bureaucracy that would not necessarily advance the cause of national health insurance in the country. There were also concerns about the implications of government subsidizing district MHIS' regardless of their performance In the widely publicized debates and commentaries, these other concerns were overshadowed by the more dramatic row over the 2.5 % SSNIT deductions. The greatest dissenting views came from the then opposition political parties, who expressed concerns that the introduction of a 2.5 % National Health Insurance Levy represented a rise in VAT from 12.5 % to 15 % and was an excessively high tax burden. The opposition also supported organized labour's concerns about the 2.5 % SSNIT deductions and the long-term viability of the social security fund.

Another opposition also came from the already existing MHOs who expressed concerns about being classified by Act 650 as 'private' and therefore ineligible for any government support or subsidy. According to them, they were unlikely to survive unless they converted from independent organizations into government-sponsored district MHIS' though they were poorly organized, and many of their constituents were the rural poor, hardly any of whom participated in the vociferous debates that erupted around the passage of Act 650. Most of the civil society engagements in the extensive media debates were in the larger urban areas, with higher literacy levels and a bigger formal sector that had almost no MHO prior to the passage of Act 650.

Implementation of the National Health Insurance Scheme

The National Health Insurance Scheme, which was implemented in 2004, has been accepted by Ghanaians as one of the best social intervention programmes to be introduced in the country. This is because it is not one of those programmes sponsored by the Donor Community or the World Bank and the International Monetary Fund. As at the end of December, 2010, 8,163,714 people were registered

Table 9.1 Active membership

Methodology	2005	2006	2007	2008	2009	2010
Old	1,348,160	2,521,372	6,643,371	9,914,256	10,638,119	N/A
New	N/A	N/A	N/A	N/A	N/A	8,163,714

Source. NHIA (2011)

Table 9.2 New members, renewals and active members in 2010

Regions	New members	Renewals	Active members
Ashanti	606,349	978,748	1,585,097
Brong Ahafo	323,092	691,462	1,014,554
Central	303,592	189,125	492,717
Eastern	316,861	613,482	930,343
Greater Accra	492,443	469,012	961,455
Northern	349,899	421, 436	771,335
Upper East	238,935	278,932	517,867
Upper West	158,911	202,154	361,065
Volta	263,050	318,255	581,306
Western	466,458	481,518	947,976
Total	3,519,590	4,644,124	8,163.714

Source. NHIA (2011)

with the National Health Insurance Schemes operating the country's healthcare systems. The regional breakdown of membership is shown in Table 9.1.

According to the National Health Insurance Authority (NHIA), the new active membership figure of 8.16 million for 2010 does not necessarily represent a drop, as there is no comparative historic data based on the new methodology of computation. While the perceived drop in active membership is largely due to the application of the new methodology for reporting, other sub-standard practices from the schemes such as the issuing of old ID cards, the granting of validity period exceeding the 3 months period mandated for temporary cards and the printing of temporary ID cards outside the NHIS' computerized system. This might have accounted for the lower figures for the reported new active membership data in 2010. Table 9.2 shows the number of new members, renewals and active membership distribution by region.

The total active membership of 8,163,714 as at December 2010 represents 34 % of the total population in 2010. Similarly, outpatient utilization increased by over 28-fold from 0.6 million in 2005 to 16.9 million in the year 2010, Fig. 9.2. Inpatient utilization increased over 30-fold from 28,906 in 2005 to 973,524 in 2009 but dropped to 724,440 in 2010. The decline in utilization in 2010 could be attributed to the following reasons;

- Members are seeking early treatment and thereby reducing inpatient cases
- Primary healthcare is becoming more efficient
- Detentions were being billed as inpatients in prior years instead of outpatient
- Service providers are changing their behaviour due to effective clinical audit

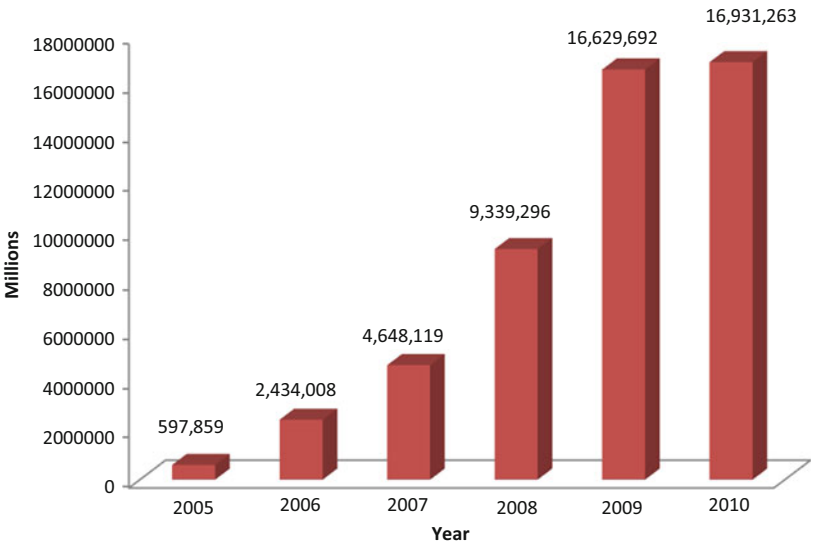

Fig. 9.2 Outpatient utilization trend from 2005 to 2010. *Source*. NHIA (2011)

Claims payment is the major cost driver of the scheme. Claims payments increased from GHS7.60 million in 2005 to GHS394.27 million in 2010. The total amount of GHS394.27 million disbursed for the payment of claims represent 76.2 % of the total expenditure of the NHIA.

Drawbacks of the National Health Insurance Scheme

The NHIS has been hailed as one of the most important and successful internally initiated policies in Ghana and statistics from the NHIA supports this claim. However, the scheme is plagued with challenges which could lead to the demise of the policy, if it is not mitigated within the shortest possible time. Prominent among the challenges is the legal framework within which the National Health Insurance Act (Act 650) is situated. Act 650 created an almost autonomous District Mutual Health Insurance Schemes across the country with 145 of them operating under the companies' code of Ghana. Section 54 of Act 650 specifically states that: "*a scheme shall have a governing body which shall be responsible for the policies of the scheme and appointment of the employees*".

As per the law, each scheme in each district is completely independent of the other in the country, with independent Boards of Directors and does not pool risks together in any way. However, the National Health Insurance Authority makes mandatory financial resources available to the almost autonomous District Mutual Health Insurance Schemes across the country from the Health Insurance Fund on

continuous basis as stated in section 33 of the Act. This legal entanglement has created lack of accountability on the part of scheme managers. The legal ambiguities have often times created institutional conflicts, personality clashes and low work output. This fundamental flaws in the legislative framework affects the institutional checks of the system as espoused by Hsiao (2003). This has the potential to affect the financing, organisational structure, payment mechanisms, regulation and persuasion (information provision) of the policy. It is for this reason that Hsiao suggests that in any healthcare financing policy, the legal frameworks should not be applied inflexibly but rather there should be a continual revision of the legal frameworks until the hopes and aspirations of the people for whom the legal framework was developed is achieved (WHO 2009).

Apart from the legal ambiguities, corruption has been sighted as a possible drawback to the policy. Corruption is pervasive in the entire structure of the system—from service providers to employees of the schemes. Some service providers deliberately over price service charges, provide inferior drugs and sometimes, and discriminate among NHIS card holders resulting in long queues at health centres. This they do, in connivance with some scheme employees. In 2011 for example, certain private service providers in the Kumasi Metropolitan Area were blacklisted by the Scheme for engaging in this dastardly act. This affects the quality and equity issues that are at the core of any health insurance scheme. The corrupt practices arise from lack of or limited supervision from the monitoring agencies.

Delay in claims payment is another challenge facing the NHIS. The NHI Act (Act 650) mandates the NHIA to accredit service providers before they can provide service their clients. The primary goal is to ensure that healthcare services offered to card bearing members are of good quality. Total accredited health facilities as at 31st December 2010 were 2,647. Claims payment refers to the money paid to hospitals, pharmaceutical companies and allied institutions for services rendered on behalf of the NHIA. Unfortunately, such mandatory payments are not promptly done and this often results in periodic withdrawal of services by some private service providers. In March 2013, for example, Christian Health Providers (CHP), who provide over 42 %, of the health needs of Ghanaians had to withdraw their services for 7 days for non- payment of services rendered for 7 months (Sept 2012–April 2013), which added up to over GHS50 million. Such withdrawal of services has the tendency of undermining public confidence in the insurance scheme in particular and the country's health sector in general. For this reason WHO recommends the need for the establishment of national health account (NHA) that can provide a reliable source of health financing data (WHO 2009). NHA should be compiled according to a common agreed framework and will provide an accounting system for systematic, comprehensive and consistent measurement of financial flows in a country's health insurance system for a given period. This can reduce the level of corruption that has plagued the system.

Besides the major challenges enumerated above, other minor challenges are weak systems, poor monitoring and evaluation, poor institutional and professional accountability, poor working conditions, the absence of clear boundaries of the market in healthcare delivery leading to unbridled and unacceptable advertisement.

Conclusion and Recommendations

Recent report from the World Bank suggests that many African countries have made tremendous gains in their forward match to economic prosperity by recording economic growth rates of around 5–6 % per annum (World Bank 2010). These positive developments are good indicators for efforts to reduce poverty and improve health on the continent. However, sub-Saharan Africa still faces a grim scenario with respect to the health of its people. The region accounts for 22 % of the total global disease burden and more than 68 % of the people living with HIV/AIDS. The region's poor health status is reflected in crises in health financing and human resources for health. With only 2 % of the global health workforce and only 1 % of the world's health expenditures, sub-Saharan African countries are ill-equipped to adequately address their health problems. Low per capita income, limited capacity for domestic revenue mobilization, and pervasive health system bottlenecks complicate governments' ability to respond effectively to the health challenges in their countries. Even with substantial external assistance, large gaps remain between what resources are available and what are needed.

The history of healthcare financing in Ghana provides a good example of how governments in sub- Sahara Africa have been struggling to provide for the health needs of their populations. From a free healthcare regime, in the early days of post-colonial period, to a system of 'cash and carry', Ghana has seen a tremendous improvement in healthcare financing from the mid-2000s with the introduction of a National Health Insurance Scheme. The scheme has provided and continues to pay for healthcare services of many poor people in the country. However, a large number of Ghanaians (about 66 %), most of them in the rural areas, still subsist on cash and carry for their healthcare requirements as they have not registered to join the NHIS. This is one of the major challenges facing the government and management of the NHIS.

Embarking on very important programmes and policies to address some of the implementation challenges, especially identified corrupt practices by both service providers and scheme employees, and of reaching out to the many unregistered Ghanaians should be the focus of scheme managers. In looking forward, the following recommendations are made:

(a) The National Health Insurance Authority should establish a centralized computerized claims processing system so that the massive fraud associated with the current claims management of the schemes could be reduced.
(b) The legal ambiguity that has characterized the current legal regime should be to completely streamlined and overhauled. A new legal framework resulting in the creation of a single scheme under the complete control of the National Health Insurance Authority, which would be the implementer of the scheme, should be promulgated to save the scheme from collapsing.
(c) In order to check the increasing level of fraud and corruption that has characterized the scheme, there is the need to have a strong and well resourced internal Audit and Fraud Control Directorate in the regions and across the country to

ensure financial discipline of funds made available to the various schemes. This will also ensure that all claims that are submitted for payment by service providers are for actual services which are rendered to subscribers by accredited healthcare service providers to minimize to the barest minimum, if not totally eliminated, the fraud that is associated with claims processing in the past.

Whereas health financing reforms may be a good thing, the way the reforms are managed should rather engage the attention of policy makers. It is the view of the researchers that countries that are looking to emulate Ghana's current healthcare financing scheme should be guided by Ghana's challenges, if they are to succeed.

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