

May 2007

Farming on the Fringes: Changes in Agriculture, Land Use and Livelihoods in Peri-Urban Dar es Salaam, Tanzania

Sara C. Nelson

Macalester College, saranelson1@gmail.com

Follow this and additional works at: http://digitalcommons.macalester.edu/geography_honors



Part of the [Geography Commons](#)

Recommended Citation

Nelson, Sara C., "Farming on the Fringes: Changes in Agriculture, Land Use and Livelihoods in Peri-Urban Dar es Salaam, Tanzania" (2007). *Geography Honors Projects*. Paper 10.

http://digitalcommons.macalester.edu/geography_honors/10

This Honors Project - Open Access is brought to you for free and open access by the Geography Department at DigitalCommons@Macalester College. It has been accepted for inclusion in Geography Honors Projects by an authorized administrator of DigitalCommons@Macalester College. For more information, please contact scholarpub@macalester.edu.

Farming on the Fringes: Changes in Agriculture, Land Use and
Livelihoods in Peri-Urban Dar es Salaam, Tanzania

Sara Nelson
Advisor: Dr. William G. Moseley
Macalester College
Department of Geography Honors Project
May 2007

Table of Contents

Abstract.....	iii
Acknowledgments.....	iv
Chapter 1: Introduction.....	1
Chapter 2: Methodology.....	5
Chapter 3: Literature Review.....	9
Chapter 4: Peri-Urban Agriculture from 1961-1985.....	21
Chapter 5: Structural Adjustment and Peri-Urban Dar es Salaam.....	32
Chapter 6: The Peri-Urban Land Market and Changing Tenure Regimes.....	40
Chapter 7: Case Studies.....	51
Chapter 8: Conclusions and Further Research.....	62
Works Cited.....	66

Abstract

Agriculture is a central part of Tanzania's economy. Both within Dar es Salaam, its primate city, and in the city's peri-urban zone, agriculture is an important part of the livelihood strategy for people of all social classes. However, because the peri-urban zone is one of transition from urban to rural, it tends to undergo more pronounced changes in land use over time than do the city and rural area it borders. This paper examines recent changes in agriculture, land use and livelihoods in the peri-urban zone of Dar es Salaam, Tanzania. Based on a literature review and semi-structured interviews conducted in three peri-urban villages, this paper argues that structural adjustment policies and changing land tenure regimes are impacting the presence and practice of agriculture in peri-urban Dar es Salaam. This paper further argues that because agriculture provides a means of investing in the future, it is an essential part of the livelihood strategy for middle and upper class residents of peri-urban areas.

Acknowledgements

This project would not have been possible without the help of a number of individuals who provided much-needed support throughout this process. First, thank you to Dr. Simeon Mesaki at the University of Dar es Salaam whose knowledge proved invaluable in the completion of this project. Thanks to David Ribble and Helen Ballew and my host mother Judness Bukuku for your hospitality, patience and humor. Also, thanks to my readers Dr. Holly Barcus and Dr. Jamie Monson, and to Birgit Muelenhaus for cartographic assistance. Finally, thank you to Bill Moseley, my advisor, for your feedback, encouragement and enthusiasm for geography.

Chapter 1: Introduction

Urban areas in Africa are full of tensions between tradition and modernity, striking juxtapositions of wealth and poverty and everyday interaction between formal and informal. Cities, because they are the places most clearly connected to the broader global economy, bear the imprints of encounters with the West perhaps more visibly than other parts of the continent. The legacy of colonialism and the imprints of neoliberalism are visible in landscapes, policies and rhetoric that are part of the every day lives of urban dwellers. Nowhere are such tensions as present or as visible as in the peri-urban areas of African cities, which are neither wholly urban nor rural, and as a result are places of rapid changes.

At present, Sub-Saharan Africa is the world's least urbanized region, but its urban areas are the fastest growing in the world. At the same time, however, its rural population growth has declined to under one percent per year (Tiffen, 2006). In Tanzania, the rural population growth rate was .2% between 1998 and 2000 (Tiffen, 2006). Dar es Salaam, its primate city, is, depending on estimates, presently growing at a rate of between 2 and 4% per year. The 2002 Tanzania Population and Housing Census put Dar es Salaam's annual growth rate even higher, estimating a rate of 4.3% (United Republic of Tanzania, 2002). Such growth, which is a result of natural increase as well as rural to urban migration, has led to a sprawling, low density city that stretches nearly 35 kilometers from north to south.

Agriculture is often thought of as the antithesis of a modern, planned city. However, in Sub-Saharan Africa, agriculture is a visible part of the landscape in most cities as economic reality necessitates involvement in agriculture. Dar es Salaam is no exception to this phenomenon, in part because of its low-density development pattern and the amount of open space in the city. This pattern of development has created conditions that have allowed

the widespread practice of agriculture, by people of all social classes, throughout the city and in its peri-urban zone.

Urban agriculture in Dar es Salaam has been the subject of a number of studies, both in the realm of academia and commissioned by non-government organizations (ex. Sawio, 1993, Mlozi, 1996, Jacobi et al, 2000). The focus of this research, however, is not the agriculture practiced in the central city of Dar es Salaam. Rather, this research focuses on the changing nature of agriculture, land use and livelihoods within the city's peri-urban zone. I will examine the ways that the presence and practice of agriculture are changing as well as the changes in land use and land tenure regimes that have come about as a result of these shifts.

I chose to focus on the city's peri-urban areas for two major reasons. First, when compared to the topic of urban agriculture, much less literature on the subject of peri-urban agriculture exists. Notable exceptions to this trend are studies by Briggs (1991), Mwamfupe (1994) and Briggs and Mwamfupe (1999, 2000), which have focused on agricultural changes in the peri-urban zone of Dar es Salaam. Second, though the peri-urban zone is an emerging topic of study within geography, there are a number of gaps in the literature as the area is undergoing rapid social and environmental change. To examine these changes, as well as to understand the experiences of farmers in peri-urban Dar es Salaam, I visited three peri-urban villages and conducted semi-structured interviews in each. Though the spatial extent of the peri-urban zone is difficult to define, all of the villages I visited fit the characteristics that define peri-urban areas because they are located far enough outside the city center of Dar es Salaam to not be considered wholly urban, but still contain a mix of urban and rural land uses.

This research examines a number of topics related to peri-urban agricultural change in Dar es Salaam. First, it situates the changes taking place within the peri-urban zone in the context of broader political and economic changes following Tanzania's adoption of structural adjustment programs and subsequent economic liberalization. Second, it examines the ways in which a burgeoning land market has impacted the practice of agriculture within the peri-urban zone. In that sense, this research builds on the work of Briggs and Mwamfupe, but addresses changes that have happened since their fieldwork was conducted in the mid 1990s. Third, through case studies of middle and upper class residents of the peri-urban zone, it attempts to show the ways in which individual actors have navigated such changes.

This paper is divided into seven major sections. The first section gives an overview of the methodology (semi-structured interviews and observation) involved in conducting this research. The second situates this research in relevant discussions within peri-urban research and political ecology. The third presents background information covering changes in peri-urban agriculture from Tanzania's 1961 independence from Great Britain through its adoption of structural adjustment programs in the 1980s. The fourth part examines the impacts of macroeconomic policies such as structural adjustment on agriculture within the peri-urban zone. The fifth looks at the impacts of an emergent land market and changing tenure regimes. The sixth presents three case studies of middle and upper class peri-urban residents based on semi-structured interviews and visits to three peri-urban villages. The final section concludes and offers possibilities for further research.

This research contributes to a number of themes within peri-urban research and political ecology. First, it builds on the research conducted by Briggs (1991), Mwamfupe (1994) and Briggs and Mwamfupe (1999, 2000) through exploring recent changes in

agriculture, land use and livelihoods within the peri-urban zone of Dar es Salaam. This research offers a unique perspective on the issue of agriculture because of its focus on middle and upper class residents of the peri-urban zone, a topic that has been, to a large extent, previously overlooked as a topic of examination in its own right. Second, analyzing the issue through the lens of political ecology, which allows for a focus on the ways in which larger processes are affecting local environmental realities, adds a new dimension to the study of peri-urban changes in Dar es Salaam. Political ecology provides a concrete theoretical framework through which to understand the changes occurring in Dar es Salaam's peri-urban zone. Such a framework helps add to the theory that currently exists related to peri-urban research. Further, research at the urban-rural interface offers the potential for new directions within the field of political ecology as the peri-urban zone is a place that faces many of the same issues as urban areas, but where a more rural culture and livelihood often pervades.

Chapter 2: Methodology

This project encompasses two major parts, an extensive literature review and a fieldwork component. The literature review involved examining previously published academic and policy-based literature and census data relevant to the topic of this research. In the field, I conducted a series of semi-structured interviews with peri-urban farmers outside of Dar es Salaam. I also visited the farm of each person I interviewed.

In order to complete the literature review, I examined major works dealing with the themes of political ecology, peri-urban development in Sub-Saharan Africa, and urban and peri-urban agriculture within Dar es Salaam. Population and statistical information came from two major sources—the 2002 Tanzania Population and Housing Census and the 2000/2001 Household Budget Survey (United Republic of Tanzania, 2002, 2002a). However, because of the way this data was aggregated, at the ward and district level respectively, as well as the infrequency with which Tanzania conducts such surveys, it proved of little use beyond background information.

I conducted the fieldwork during a four week period lasting from late April to early May of 2006. This research fulfilled the independent study requirement and served as the culmination of a study abroad program at the University of Dar es Salaam sponsored by the Associated Colleges of the Midwest (ACM) and focused on the theme of “Nation Building and Development in Tanzania.” During my time in the field, I conducted three semi-structured interviews with peri-urban farmers, each of which was accompanied by a visit to the villages where the farms were located. In the villages, I toured each farm, asked questions and made observations about my surroundings.

The visits ranged in length from two to six hours and I visited one farm twice. In each village, I toured the farms of my informants and visited other farms as well as

commercial establishments present in each place. During these visits, I had a number of informal conversations with farm workers and residents in each village. I chose my subjects based largely on convenience. One of the people with whom I conducted an interview was one of my professors at the University of Dar es Salaam; another was a friend of his. The final interviewee was a friend of my host mother. This form of convenience sampling was undertaken because I had significant time constraints.

According to Dunn (2005), semi-structured interviews are a “form of interviewing that has some degree of predetermined order but still ensures flexibility in the way issues are addressed by the informant” (p.80). Therefore, each interview addressed questions about the history of each subject’s peri-urban farm, what crops each grew as well as land ownership and land tenure. Though each interview addressed similar themes, the level of detail varied widely among the interviews because some informants were more comfortable discussing sensitive topics such as land tenure and profits from farming, while others, understandably, were not. With only one of my interviewees did I have a formal, transcribed conversation. This interview lasted approximately 45 minutes and took place before my visit to his farm. With the other two, I addressed the themes of my research while on the farm visit. In each case, I took notes of my observations and answers to questions pertinent to my research.

I chose semi-structured interviews for a number of reasons. First, given time constraints, I thought that collecting detailed information about a small number of people would prove more beneficial than attempting to conduct a broad survey. Second, this format gave my subjects more agency in the research process as they could choose to interpret and respond to my questions in the manner they felt was most appropriate. Such rationale is consistent with Dunn’s (2005) interpretation of the reasons one might choose to use interviewing as a method of data collection. He writes that interviews are a method that

“shows respect for and empowers those people who provide the data” (Dunn, 2005, p. 80).

So that the anonymity of my subjects would be protected, I gave each one a pseudonym when referring to them in this paper, though the names of the villages where each resides are factual.

In order to supplement the information I gained during interviews, I made careful notes of my observations during each farm visit. According to Kearns (2005), observation serves three purposes in geographical research. These purposes are counting, complementing existing evidence and contextualizing (Kearns, 2005). Counting played a minimal part in this research. Therefore, much of my observation was for the purpose of complementing existing evidence and contextualizing. Because much of the data I collected are based on interviews and observations I made during visits to farms, my understanding of peri-urban agriculture is very much shaped by my observations of the phenomenon.

Kearns (2005) argues that because observation relies so much on one’s personal interpretation of a situation, all observation is inherently participatory. Though the observation I undertook was not participatory in the sense that I volunteered for an organization or engaged in some similar activity, it was participatory in the sense that on each farm I visited, I took a tour and learned to recognize different types of crops grown, the process involved in growing them and how they were harvested. In an attempt to give the subjects of my research accurate representation and to clarify subjects about which I was unsure, I asked each one a number of questions during the farm visit.

In conducting this research, I faced three major constraints. The first, and perhaps most obvious, is my status as an outsider within Tanzania. I am a white female undergraduate student from the United States. Never having traveled abroad prior to this research experience, all of the knowledge I have about Dar es Salaam and the peri-urban

agriculture practiced there comes from reading, the observations I made while studying there and the interviews I conducted. Since my status as a *mzungu* (foreigner) was obvious to anyone I met this influenced, to a great degree, the questions I asked, the answers I obtained and ways I conducted my research. The second major constraint I faced was language.

Though I did study Kiswahili as part of my study abroad program, by the time I was ready to conduct interviews, I was nowhere near fluent enough to speak to people who did not know English beyond making small talk. This limited my available subjects for research to people who were fluent, or nearly fluent, in English. The third constraint I faced was time. Since I had four weeks to conduct this research, the number of people I could interview was somewhat limited. Therefore, the case studies presented in this paper are exactly that—case studies. They are clearly not representative of every peri-urban farmer, but they do shed light on the ways that three individuals have coped with a changing economic reality and draw attention to broader themes relevant to further research.

Chapter 3: Literature Review

This chapter will situate my discussion of peri-urban agriculture into the current conversations, both within and outside of academia, to which it is relevant. In the first section of this chapter, I will focus on four sub-themes within the literature related specifically to peri-urban agriculture. The first part of the section will give an overview of the state of peri-urban research in Sub-Saharan Africa. The second part will examine the ways in which the impacts of structural adjustment programs in African cities have been framed and discussed. The third will focus on the changing roles of peri-urban agriculture within the Sub-Saharan African context. The fourth part will focus specifically on work that seeks to understand changes in the peri-urban zone of Dar es Salaam, most notably that produced by Briggs (1991), Mwamfupe (1994) and Briggs and Mwamfupe (1999,2000). Because the ideas of political ecology, particularly that of the emerging subfield of urban political ecology, are particularly relevant to recent discussions regarding peri-urban agriculture, the second part of this chapter will review seminal works in that field.

Peri-Urban Agriculture

Though the literature related to the presence and practice of urban agriculture is extensive, comparatively less exists which focuses on agriculture practiced in the peri-urban zone, both generally speaking and within Dar es Salaam specifically. Literature on urban agriculture in Dar es Salaam has focused on the role of agriculture as a means of securing livelihood for people of all social classes and the reasons why it persists in the city (Sawio, 1993). It has also examined the role of urban agriculture in nutrition within Dar es Salaam and the potentials and risks involved with the practice of agriculture within an urban area (Jacobi et al, 2000; Mougeot, 2000). Much of the literature related to the peri-urban zone of cities, however, focuses on cities in the developed world (e.g. Ford, 1999). These cities

underwent a distinctly different process of urbanization than did cities in Sub-Saharan Africa and it is only in recent years that discussions of peri-urban areas in Sub-Saharan Africa have emerged (Mbiba and Huchzermeyer, 2002).

Though exact definitions and determinations of what is or is not a peri-urban area vary, the common factor in all of these is the idea of change and transformation (Mbiba and Huchzermeyer, 2002). Some define the zone as one of transition from urban to rural (Sawio, 1993 and Mwamfupe, 1994), others treat the peri-urban area as a distinct spatial zone of the city and still others look at the peri-urban zone as an area of spontaneous unplanned development (Mbiba and Huchzermeyer, 2002). Mbiba and Huchzermeyer (2002) have argued that this lack of a consistent definition is but one of the problems related to current research on peri-urban areas in Sub-Saharan Africa.

Another problem is not one that is unique to research in peri-urban areas, but is an issue that plagues development research throughout Sub-Saharan Africa. Because local resources and technologies are limited, much of the research agenda in these areas is financed and defined by Western actors. Local outlets for publishing are limited and much research therefore, is conducted in isolated cases and is often more accessible in Western journals than it is in Africa (Mbiba and Huchzermeyer, 2002). Still another of these problems relates to the subject of the research itself. Though the focus on different types of transformation has changed over time, this has remained an important theme in discussions about the peri-urban zone. According to Mbiba and Huchzermeyer (2002) the focus of research has shifted from an emphasis on the causes of urban growth in the 1960s to a discussion of the informal urban sector in the 1970s. In the 1980s and 1990s, much of the literature on the peri-urban zone focused on the ways in which people used peri-urban areas as a part of their survival strategies under the austere conditions of structural adjustment (ex.

Briggs, 1991, Potts, 1995, 1997). In recent years, the focus on peri-urban areas has shifted to comparative studies, funded and conducted by Western development agencies and NGO's, that have attempted to compare changes between places (ex. Hantrias and Mangen, 1996, Adell, 1999). These internationally commissioned studies have looked at environmental change in the peri-urban zone as well as the conditions (but not the causes) of poverty present there. This research has largely focused on attempting to describe the changes that are happening, with little attempt to examine the larger forces underpinning them. Such research created a body of literature related to peri-urban issues that is largely devoid of theory, as there has been little attempt to explore the theoretical underpinnings of the changes occurring in the peri-urban zone.

Mbiba and Huchzermeyer (2002) argue that, when theory is present in research on peri-urban areas, it is often informed by the dominant neo-liberal perspective on development, but is passed off as politically neutral and has therefore underplayed the polarization between winners and losers that has marked the current state of development within the peri-urban zone. They argue that research on peri-urban areas must make a greater attempt to examine the structural forces of the global economic system and the ways in which these are manifested at the local level, but it must also take into account that humans operating within these structures have a certain degree of agency and control over their individual situation (Mbiba and Huchzermeyer, 2002). Thus, relatively little literature exists which attempts to locate change within a peri-urban area of Sub-Saharan Africa in the context of larger political and economic forces, both at the national and global level. One of the most important forces influencing the peri-urban zone in recent years has been the implementation of structural adjustment programs (SAPs).

In the early 1980s, as a result of two decades of heavy borrowing from international financial institutions coupled with poor economic performance, much of the developing world found itself in an economic crisis. Unable to make payments on outstanding loans, these countries adopted World Bank and IMF-sponsored SAPs. These programs mandated privatization of state services and industry, devaluation of currency and an emphasis on the production of primary commodities for export in exchange for loans from international financial institutions. Structural adjustment has had widespread impacts on the social, economic and even spatial structures of Sub-Saharan cities.

A small, but growing, body of literature exists that focuses specifically on the impacts of structural adjustment in the cities of Sub-Saharan Africa. Riddell (1997) notes that in the years since SAPs were implemented, external actors have been the primary shapers of the African cityscape. He writes that structural adjustment programs have contributed to a rise in informal economic activity, restructuring of urban economies, mounting inequality and decreased access to food (Riddell, 1997). Yeboah (2003), whose work focuses on the city of Accra, Ghana, has examined the ways in which structural adjustment has impacted the spatial form of that city. He argues that Accra's peri-urban area is characterized by high-quality, low-density residential areas occupied almost exclusively by the rich and these structures have been built in a spontaneous and unplanned manner. While such a description may not be a novel argument because one could say that such a pattern emerges simply from population growth, Yeboah asserts that a combination of local and global forces, particularly trade liberalization, have interacted to produce a system that enables people who have appropriate resources to move out of the city. At the same time, however, structural adjustment has produced high inflation rates that make real estate an attractive investment to those who can afford it (Briggs and Yeboah, 2001; Yeboah, 2003). A complicated system of

land tenure combined with a weak planning and regulatory framework have produced an abundance of cheap land in Accra's peri-urban areas and spurred unregulated and spontaneous residential development. Though, to a certain extent, these forces predated structural adjustment, SAPs have served as an enabling force for this type of development (Yeboah, 2003). Briggs and Yeboah (2001) argue that, though structural adjustment has slowed urban growth and depressed urban economies, the bulk of the growth that is occurring in African cities is in peri-urban areas.

A major theme that underscores this research is the idea of social class, another facet of society that has been profoundly impacted by structural adjustment programs. Class is a topic that has been widely discussed with relation to Tanzania (ex. Shivji, 1976, Samoff, 1979). Shivji (1976) refuted the idea that class is not a factor in Tanzania, even during the country's socialist period. Samoff (1979) focuses on the ways that class has impacted political power in Tanzania.

Though scholars have focused on the various impacts class differences have had on Tanzanian society, what defines class differences remains a nebulous concept. Lugalla (1995) divides Dar es Salaam's urban residents into five social classes based on income level and consumption patterns. At the lowest level are the unemployed and those whose "survival depend[s] on luck and the vagaries of the urban system" (Lugalla, 1995, p. 126). The second group includes unskilled and semi-skilled minimum wage workers, who comprise the lowest level of the middle class simply because of the fact that they are employed (Lugalla, 1995). The third group includes those who are employed in the formal sector as teachers, lecturers, doctors and administrators. The income level of this group ranges between twice the level of minimum wage earners and the lowest level of high-income earners (Lugalla, 1995). The fourth and fifth classes comprise the highest income earners in Tanzania, which include

senior government officials, the Asian entrepreneurial class and those with business contacts abroad. Lugalla (1995) acknowledges, however, that income is not the sole determinant of class in Tanzania and that other factors such as level of education are also important. Though Lugalla's study was based on work conducted in the early 1990s, his study does begin to consider the ways in which the transition to neo-liberalism has affected class structure. What Lugalla does not examine in his conceptions of class, however, is the participation of those with jobs in the formal sector in income-generating activities outside of those jobs. Tripp (1997) explores this topic, writing that during Tanzania's economic crisis and subsequent structural adjustment programs, conditions necessitated participation in the informal economy for people of all social classes. This research mainly focuses on the changing fortunes of members of Lugalla's third group with relation to agriculture practiced in the peri-urban zone

Beyond impacts on the spatial form of Sub-Saharan African cities, structural adjustment has also impacted the presence and practice of agriculture within cities. The dominant conception of urban (and peri-urban) agriculture is that it is a survival strategy born of urban economic crisis (Sawio, 1993, Mwamfupe, 1994). Indeed, empirical evidence from many cities in Sub-Saharan Africa confirms that many of those who are involved in urban agriculture are poor households that are marginalized within the urban economy (Sawio, 1993, Hovorka, 2004). However, conditions that once necessitated the participation in agriculture as a survival strategy have shifted in a way that allows many urban households to choose whether or not to participate in agriculture (Hovorka, 2004). Sawio (1993) notes that it is not, in fact, the poor who benefit most from the practice of urban agriculture, but rather, households that are more well off. For many individuals and households in urban areas, agriculture is an entrepreneurial activity, but, as Hovorka (2004) notes little attention is

devoted to this and other alternative ways of participating in urban agriculture. Further, there is little distinction in the literature between those who view agriculture as a means of survival and those who use it as an entrepreneurial activity (Hovorka, 2004). Hovorka (2004) argues that in Gaborone, Botswana, cultural identity firmly shaped by agricultural roots and a combination of national and global economic forces have combined to create favorable conditions for the growth of entrepreneurial agriculture. Tiffen (2006, p. 283) writes that as urbanization is increasingly influencing the practice of agriculture “farmers have to be good businessmen—if they are not, they are, in current conditions of land scarcity and land commercialization, more and more apt to end up as landless laborers.” Therefore, agriculture as an entrepreneurial activity is becoming increasingly important, and even necessary in many urban areas.

Dar es Salaam, Tanzania is no exception to these trends. Scholars have noted that during the 1980’s agriculture in the city’s peri-urban zone was an important means of survival for residents of the city (Briggs, 1991; Mwamfupe, 1994). However, economic liberalization, most notably in the transportation sector, has helped facilitate the transition of the peri-urban zone from one of survival to one of investment mainly for middle and upper income households (Briggs and Mwamfupe, 1999,2000). Privatization of the transportation system in Dar es Salaam created the system of dala-dalas that currently serves the city today. Since these are smaller vehicles than the state-owned ones that previously operated in the city, they can travel on smaller roads and have reduced the travel time into Dar es Salaam’s city center. This has opened up areas of the peri-urban zone for residential development which were previously inaccessible (Briggs and Mwamfupe, 2000). Further, a car allowance for civil servants has increased car ownership among residents and many civil servants and other middle to high income Tanzanians have invested in real estate in Dar es Salaam’s peri-

urban zone (Briggs and Mwamfupe, 2000). Also, the development of a burgeoning informal land market has increased the number of people speculating, or investing in land itself (Kironde, 1995, 2000, Briggs and Mwamfupe, 2000). This has changed an area that was once primarily agricultural into one where small-scale agriculture must compete with other, more profitable land uses. Because of this transition from survival to investment, the poor are increasingly excluded from the peri-urban zone (Briggs and Mwamfupe, 2000).

A Political Ecology Perspective

Livelihoods, even those of middle and upper-class Tanzanians are still, in many cases, at least partially reliant on agriculture. The agricultural changes occurring in the peri-urban zone of Dar es Salaam are reflections of larger political and economic processes that are resulting in changes to the social fabric of the city. The system of land distribution has resulted in a peri-urban landscape that privileges some at the expense of others. Thus, when viewing the changes in the peri-urban zone of Dar es Salaam as social changes, marginalization and power shifts occurring against the backdrop of (and deeply tied to) the natural environment, political ecology becomes a relevant lens through which to analyze this issue.

In the broadest sense, political ecology is defined as the political economy of human-environment interactions. The subfield is centered on questions of power, marginalization and the connections between local human-environment interactions and larger national and global forces. Much of the research within the discipline, however, has focused on rural, agricultural societies in the Third World. Changes in the rural agricultural landscape influenced by global forces are the subject of many of the seminal works within political ecology. In recent years, scholars have applied theories from political ecology to the first world as well. Much of this scholarship focuses on issues related to environmental justice

and environmental racism in urban areas (ex. Heynen, Perkins and Roy, 2006). However, the issues faced in the urban and peri-urban areas of the developing world are largely absent from research in political ecology, a notable exception to this trend being Myers (2005).

Political ecology is such a broad subject that there is no one definition for the term. However, because the focus of my research is the ways in which social relations are affected through the medium of the environment, I find the following definitions most useful. First, according to Blakie and Brookfield (1987, p.17) political ecology “combines the concerns of ecology and a broadly defined political economy. Together this encompasses the constantly shifting dialectic between society and land-based resources, and also within classes and groups within society itself.” Second, Watts (2000, p. 257) puts forth the idea that the goal of political ecologists is “to understand the complex relations between nature and society through a careful analysis of what one might call the forms of access and control over resources.” Third, Robbins (2004, p.12) writes that the term political ecology describes “empirical, research-based explorations to explain linkages in the condition and change of social/environmental systems, with explicit consideration of relations of power.” These definitions emphasize the ways in which political ecology as a mode of inquiry recognizes the complex social, political and economic forces that shape human-environment interactions.

Some scholars attribute a lack of interest in urban areas to dualistic thinking about the relationship between humans and nature, where nature and the city are viewed as two separate and mutually exclusive entities. Friedberg (2001) writes that political ecology has done little to challenge the notion that what she terms the “natural environment,” meaning the environment containing natural resources, is rural. Heynen et al (2006) have a slightly different take on the issue, writing that scholars have traditionally viewed urbanization as a

process in which the natural environment is traded for the built environment, which thereby makes thinking of cities as separate from nature easy. This notion becomes problematic, however, when one's livelihood in an urban area is wholly or partially based on a natural resource, as is the case with the agriculture practiced in Dar es Salaam, its peri-urban zone and in many other cities of Sub-Saharan Africa. Therefore, considering the city as part of the natural environment and thinking of natural resources as contained within the city becomes necessary.

Urban political ecology attempts to integrate the politics of nature with the politics of social relations. The idea of a distinctly urban political ecology draws on the traditions of political ecology but is also heavily influenced by other critical social theories such as eco-Marxism, eco-feminism and eco-anarchism. The theory rests on the Marxist idea that nature is produced through social relations, of which labor is a central part. Therefore, because humanity produces the idea of nature through its social relations, there is nothing particularly unnatural about cities. Swyngedouw and Heynen (2003, p.898) write that a Marxist urban political ecology perspective “provides an integrated and relational approach that helps untangle the interconnected economic, political, social and ecological processes that together go to form highly uneven and deeply unjust urban landscapes.”

Cities themselves are complex networks of human social and environmental interaction. Therefore, “the transformation of nature is embedded in a series of [complex] relations that are tied together in a nested articulation of significant, but intrinsically unstable, geographical configurations like spatial networks and...scales” (Heynen et al, 2006, p.7). Key to Heynen et al's (2006) conception of political ecology is the idea of metabolism and circulation present within the produced nature of a city. This metaphor of metabolism implies a process of flow, change, transformation as well an idea of interconnectedness and

therefore captures the complex network of forces and interactions that work together to produce nature in urban areas.

Because urban political ecology is a relatively new mode of inquiry, its core theories are not yet well defined. Nonetheless, the small body of literature within the framework of urban political ecology does share some common themes. Heynen et al (2006) put forth a number of key tenets within the framework of urban political ecology. Many of these are consistent with the ideas in political ecology, but with special attention to urban environments, while others mark somewhat of a departure from this framework. Central to Heynen et al's (2006) theory is the idea that environmental and social changes co-determine each other. This in turn, produces urban environments that are a direct result of specific socio-environmental processes. These processes thereby create conditions that either enable or disable certain groups of people. Thus, in a similar vein to mainstream political ecology, Heynen et al (2006) argue that changes to an urban area are never socially or ecologically neutral and that people affect each other via the environment. Thus, social relations are mediated through the environment and questions of sustainability become fundamentally political because of differential impacts across groups.

The agricultural changes happening within the peri-urban zone cannot be examined in isolation. National and global political and economic events have clear, and, in many cases direct, impacts on the practice of agriculture within the peri-urban zone. Because the changes happening in Dar es Salaam's peri-urban zone are, in the most basic sense, social changes occurring against the backdrop of the natural environment, political ecology becomes a relevant framework through which to analyze this issue. Further, this research adds to the field of political ecology through applying the theories of the sub-field at the

rural-urban interface, which presents a set of problems unique from either urban or rural areas.

Chapter 4: Peri-Urban Agriculture from 1961-1985

In order to understand the contemporary problems of peri-urban agriculture in Dar es Salaam, it is necessary to define what is meant by the term “peri-urban” and then to examine the history of the practice of agriculture at the fringes of the city. Crucial to contextualizing the present changes within the peri-urban zone is an understanding of Tanzania’s socialist past and its transition to neo-liberal economic policy. This chapter will focus primarily on the period between Tanzania’s independence in 1961 and its adoption of structural adjustment programs in the mid 1980s. Changes in the peri-urban zone from structural adjustment to the present because they are the focus of this research will be discussed in depth in a later chapter.

Defining Peri-Urban

For the purpose of this research, I have chosen to conceptualize peri-urban as a distinct area of the city. Though an exact definition for the term “peri-urban” is difficult to formulate, scholars generally agree that the peri-urban zone is at the fringes of the city, is less densely settled than the inner city and is a place where transition from urban to rural can be observed. Sawio (1993) characterizes the peri-urban zone of a city as neither completely urban nor entirely rural. Because the peri-urban zone is a transition between urban and rural, over time, it tends to undergo more dramatic changes in agriculture and land use than the either the city or the rural area it borders (Mougeot, 2000). The spatial extent of the peri-urban zone varies, however, as do levels of urban land use throughout the zone.

One of the most important characteristics for distinguishing that which is peri-urban from that which is rural is the direct influence the city has on the area. Sawio (1993) characterizes peri-urban areas as the periphery of urban agglomerations, where economic and social activities are directly affected by the presence and expansion of the city. Peri-

urban areas are geographical regions whose centers—the cities—are easy to identify, but where it is difficult to determine at which point they give way to other regions (Mwamfupe, 1994). Peri-urban areas contain a mix of land uses, both urban and rural, meaning a combination of residential, commercial and agricultural. Because the peri-urban zone is one of transition, generally speaking, the further one moves from the city or from a major transportation artery, the less intensive land use becomes. Close to the city and along major transportation routes, such as Bagamoyo Rd and Morogoro Rd. in Dar es Salaam, more intensive land uses, such as residential and commercial, dominate. Further away, however, agricultural land uses dominate. Residents of the peri-urban zone depend on the city for basic services and employment (Mwamfupe, 1994). As one moves, further away from the city, however, such dependence becomes less prominent.

Some scholars define the outer limit of the peri-urban zone as the point at which commuting daily from farm to work is no longer feasible (Mougeot, 2000). In 2000, it was estimated that the peri-urban zone of Dar es Salaam extended between 15 and 20 kilometers from the city center, though this influence is likely to grow as the city and therefore, its radius of influence, expands (Jacobi et al, 2000). Even this assertion, however, is contentious, as Briggs (1991) believes the peri-urban zone begins about 20 km from the city center.

In the developed world, the peri-urban zone often includes the agricultural hinterland of a city, at least historically. The center city relies on the peri-urban zone for much of milk, dairy, fresh fruits and vegetables. Von Thunen's model, developed to describe patterns of land use in cities and their hinterlands, theorizes that as one moves further from the central city, land becomes less valuable and land use less intense (Samuelson, 1983). This pattern is changing somewhat with new developments in technology and transportation, but still holds true in some areas of North America and Europe. Ford (1999) defines four

distinct processes—suburbanization, counterurbanization, population retention and centripetal migration that are shaping population change in the peri-urban areas of the developed world. In recent years, scholarship on peri-urban areas in the developing world has begun to emerge, though global trends in peri-urbanization are difficult to determine because patterns vary between places. In looking at development on the metropolitan fringes of Jakarta, Indonesia, Santiago de Chile and Bangkok, Thailand, Browder and Bohland (1995) found that peri-urban areas in these cities were generally occupied by middle and lower-income households who were employed in the service sector and that agriculture and linkages to rural areas were not significant.

The trends Browder and Bohland (1995) identified are not consistent with peri-urbanization in Sub-Saharan Africa, as the processes of urban development and population change have panned out in much different ways, even when compared to other areas of the developing world. Agricultural surpluses allowed many early cities in what is today considered the developed world to grow, thus these cities maintained strong agricultural links with their immediate hinterlands. These agricultural surpluses literally fed urbanization, providing both a food supply for a growing population and allowing for diversification in employment opportunities.

Indigenous cities, meaning those in Sub-Saharan Africa that developed prior to and independent of colonialism, exhibit much the same pattern and therefore have strong agricultural ties to their immediate hinterlands. One such example of an indigenous city is Kano in what is today Northern Nigeria. Mortimore's (1993) study indicates that intensive rural-urban interaction between Kano and its peri-urban zone long predated the colonial era. During periods of rapid population growth in the region, agriculture remained stable and intensified in Kano's peri-urban zone (Mortimore, 1993). In contemporary times, economic

diversification in the area provides supplemental income and the zone has seen increased building of residential plots and an increase in land speculation.

For much of Sub-Saharan Africa, however, urbanization was largely influenced by colonialism and therefore the patterns that hold true in the developed world do not apply in the same way there. Dar es Salaam is not an indigenous city. It remained a small fishing village inhabited mostly by the Zaramo until German colonizers made it the capital of their territory in East Africa in 1891. At that time, the Germans also made the city the terminus of a cross-country railroad line. Dar es Salaam's deep-water harbor made it an appropriate place for transporting goods from the interior of Tanzania to markets outside of Tanzania. Because the city's urbanization was tied so closely to colonialism, it historically did not have strong agricultural links to its peri-urban zone. The dominant form of commercial agriculture during the colonial period was plantation agriculture, primarily for export (Mabogunje, 1986). While small-scale farming has been practiced in the peri-urban zone for a long time, historically much of the city's food supply has come from distant up-country markets such as Mbeya, Iringa and Arusha (Mwamfupe, 1994).

Urban and Peri-Urban Agriculture

One cannot define urban agriculture as simply as "agriculture practiced in a city." An important distinction between urban and rural agriculture is urban agriculture's integration into urban ecological and economic systems (Mougeot, 2000). Therefore, one can characterize urban agriculture as agriculture that is practiced within or on the outskirts of a city that relies mostly on inputs from an urban ecosystem. Urban agriculture is practiced in places where "non-agricultural use of local resources is a real option, rural agriculture is found in areas where this option is not an issue" (Moustier, quoted in Mougeot, 2000, p.6). Because the peri-urban zone is one of transition from urban to rural, such competition over

land use is magnified. Though technically practiced outside of the city, peri-urban agriculture is still considered a type of urban agriculture both because of its reliance on the city's ecosystem and economy and because it occurs in a place where non-agricultural land use is a real option.

Peri-Urban Agriculture Since Tanzania's Independence

Though people have practiced agriculture in Dar es Salaam's peri-urban zone since the colonial era, the practice has changed markedly since Tanganyika's¹ 1961 independence from Great Britain. These agricultural changes have largely been motivated by national and global political and economic forces. Such forces have resulted in changes in terms of who practices agriculture in the peri-urban zone and for what purpose. Mwamfupe (1994) divides the time since 1961 into four distinct periods that have significantly impacted the presence and practice of agriculture in the peri-urban zone. This section will discuss the first three periods and the fourth will be addressed in a later section of this paper.

The first major period lasted from Tanganyika's independence in 1961 until the adoption of the Arusha Declaration in 1967. When Tanganyika became independent, Dar es Salaam was the administrative and economic center of the British colonial government there. Dar es Salaam therefore became the capital of Tanganyika. The newly independent government, under the leadership of Julius Nyerere, made few attempts to alter the colonial structure of the economy. Thus, most of its revenue came from exporting raw materials and most Tanzanian's engaged in agriculture as their primary economic activity. Though economic changes were scant, a number of significant political changes occurred during this time period which helped pave the way for Tanzania's transition to socialism. In 1962

¹ The country now known as the United Republic of Tanzania was two sovereign states, Tanganyika (what is today mainland Tanzania) and Zanzibar until their union in 1964.

Tanganyika adopted its one-party constitution, which officially outlawed all opposition to the Chama cha Mapunduzi (CCM) and in 1964 Tanganyika and Zanzibar adopted a joint constitution and became the United Republic of Tanzania. The function of Dar es Salaam changed little during this time period; however, it began a period of rapid growth, resulting mostly from rural to urban migration (Bryceson, 1987). During the early period of Tanzania's independence, small farms and a few plantations dominated land use in the peri-urban zone (Mwamfupe, 1994).

The next major period of political and economic changes spanned Tanzania's experiment with socialism, beginning with the country's adoption of the Arusha Declaration in 1967 and ending with the economic crisis it, and much of the rest of Sub-Saharan Africa, experienced in the late 1970s and early 1980s. The adoption of the Arusha Declaration officially began Tanzania's socialist period and profoundly altered its development strategy. The Arusha Declaration emphasized the principles of equality, self-reliance and *ujamaa*². All industries were nationalized and brought under state control. The majority of the economy remained largely agricultural, as President Nyerere's policies emphasized rural development and decentralization over industrialization and development of cities. To facilitate the development of rural areas and make the provision of infrastructure easier, Nyerere implemented the villagization program. The program consolidated the rural population of Tanzania into approximately 8,000 villages spread throughout the country. Such movement left the rural population largely dissatisfied and prompted further acceleration of rural to urban migration (Mwamfupe, 1994). Other changes to rural social and economic structures, such as the replacement of peasant cooperatives with parastatal crop authorities further accelerated the push of migrants to Dar es Salaam (Maghimbi, 1992). Largely driven by this

² Ujamaa is a Kiswahili word meaning family hood.

migration, the city's population grew at about 10% per year during this period and reached one million by the 1970's (Bryceson, 1987).

The massive influx of rural migrants to Dar es Salaam in the 1970's presented a host of problems for the city. First, it created high levels of unemployment in a city that was already struggling to provide jobs to those who lived there. Second, the rapid growth of Dar es Salaam was not consistent with Nyerere's goals of rural development and decentralization. Nyerere developed and implemented a number of policies to attempt to quell the growth of Dar es Salaam, none of which proved effective in the long term. One of Nyerere's more visible policies was the physical resettlement of those in Dar es Salaam who lacked identity cards or was unemployed to villages in city's peri-urban zone (Mwamfupe, 1994, Tripp 1997). Government offices, factories and other work places were also given land as part of the *Kilimo Cha Kufa na Kuponu* (Agriculture for Life or Death) program, which lasted from 1974-1975 (Tripp, 1997). Those who were resettled were encouraged to "plant crops, tend livestock and become worthy citizens of Tanganyika" (Nyerere, quoted in Mwamfupe, 1994, p.58). The resettlement program resulted in a marked increase in the population of the peri-urban zone. Though many of the people who were allotted land in the peri-urban zone eventually returned to the city, most maintained claim to the land they were given (Mwamfupe, 1994).

Nyerere's experiment with socialism, however, did not yield the results he intended and Tanzania, along with many other nations in Sub-Saharan Africa and the rest of the developing world, found itself in an economic crisis at the start of the 1980's. For Tanzania, the causes of this crisis were both internal and external. The economic crisis resulted from a combination of the cost of a war with Idi Amin over a border dispute with Uganda, rising worldwide petroleum prices as well as the toll a drought in the late 1970's took on the

agriculture-based economy (Mwamfupe, 1994). The shortage of resources made it difficult to increase exports, which were needed to increase the country's reserves. Therefore, there was widespread inflation, shortages of goods throughout the country coupled with a drop in wages (Mwamfupe, 1994). Those living in cities were more vulnerable to food insecurity than those in rural areas because a larger percentage of their food supply came from purchased food and an increase in food prices made purchasing food more difficult (Mwamfupe, 1994).

As a result, many families who had been allotted land in the 1970's returned to the peri-urban zone to cultivate it in the 1980s. Many families adopted a strategy whereby one member of the family worked in the informal economy, others worked as wage earners and one, usually the wife, was assigned the role of growing food on the city's available open spaces or in its peri-urban villages (Mwamfupe, 1994). Many of the people who were allotted land during the 1970s returned to it in the 1980s to grow staple crops for their families. In fact, economic conditions during this time had worsened so much that "the average worker's salary was sufficient to pay for roughly three days of his or her household's monthly food budget" (Tripp, 1997, p.44). Thus, during the 1980s the peri-urban zone became known as a "zone of survival" as people from a number of socio-economic backgrounds used the peri-urban zone to produce their own food in order to survive (Briggs and Mwamfupe, 2000). During this time, the practice of agriculture within the city of Dar es Salaam was growing as well. Some of the better-off farmers in the city transitioned to the peri-urban zone either because the space available in the city was not large enough for agriculture or because of a desire to minimize risk through having more than one farm (Sawio, 1993). Therefore, the practice of agriculture within and outside of Dar es Salaam became an important way of

diversifying household income, spreading out assets and therefore minimizing risk in times of economic crisis.

Another significant development during this time period was the beginnings of the land market that exists in the peri-urban zone today. Among the first to begin selling off their land were the Zaramo who originally inhabited the area that is now Dar es Salaam. Selling land proved a quick way to gain capital and many Zaramo sold the land they held close to the city and moved further away, where land was cheaper, in hopes that they would be able to repeat the process again (Briggs and Mwamfupe, 2001). Briggs (1991) notes that even in the beginning of Tanzania's transition to neo-liberal economic policy in the mid-1980s, conditions were ripe for the commoditization of land.

One emergent theme in this discussion is the importance of migration in shaping the peri-urban zone during the 1970s and 1980s. Many of those who have land in the peri-urban zone today acquired it during that time period. According to Mwamfupe's (1994) study, more than half of the 550 farmers he sampled moved to the peri-urban zone during the 1970s and 1980s both as a result of resettlement because of villagization or due to economic stresses. In fact, only about a third of the farmers sampled were born in the village in which they currently live. About a fourth were from either Dar es Salaam region or the adjacent Coast region and about 40% were born in other parts of Tanzania. A little over half of all sampled farmers lived in Dar es Salaam before migrating to its peri-urban villages and about 40% moved from rural areas to peri-urban villages, mostly as a result of the villagization program (Mwamfupe, 1994). Such statistics do not take into account the number of people who hold land in the peri-urban zone, but live elsewhere. Many middle and upper-income people from Dar es Salaam own land in the peri-urban zone, which they visit on weekends to farm. Likewise, people from rural areas may move to the peri-urban zone for a short

period of time, engage in agricultural labor and then either move back to rural areas or into Dar es Salaam itself (Kombe, 2005). Still another important facet of migration is what Potts (1995) terms counterurbanization, which refers to people leaving the city to return to rural homesteads in times of economic crisis. Since the extent of the peri-urban zone is so unclear, some of this counterurbanization may encompass movement from Dar es Salaam to the outer edges of its peri-urban zone.

Mwamfupe (1994) posits that this tendency toward migration has something to do with the character of Tanzanian people who “feel comfortable moving from one place to another with much less feeling of alienation from home than in some other parts of Africa.” This attitude is likely, at least partly, the result of Nyerere’s attempts to create a unified Tanzania and to get people to think of themselves as Tanzanians rather than members of a certain ethnic group.

Another important theme in the historical background of the peri-urban zone is a change over time in who practices agriculture and for what purpose it is practiced. At independence, there were a few small plantations in Dar es Salaam’s peri-urban zone, but smallhold farmers practiced most of the agriculture. During the 1970s the plantations were phased out and small farms came to dominate. Until the economic crisis, much of the agriculture practiced in the peri-urban zone was by poor peasants for whom agriculture was the sole source or the vast majority of their income. With the economic crisis in the 1980s, the social class of farmers began to diversify, as both those for whom agriculture was the sole source of income and those who had jobs in the formal sector relied on the peri-urban zone to provide them with food. Therefore, agriculture practiced in the peri-urban zone represented a spatial manifestation of an economic coping strategy. However, as agriculture

and land use have changed since the implementation of structural adjustment, the peri-urban landscape has changed markedly as well.

Chapter 5: Structural Adjustment and Peri-Urban Dar es Salaam

The peri-urban zone of Dar es Salaam has undergone a number of changes since the country gained its independence in 1961. These changes took place within the context of Tanzania's experiment with socialism and its subsequent economic crisis. Following the economic crisis, Tanzania adopted IMF-sponsored structural adjustment programs and began the transition into market economics. These programs have exacerbated inequalities within Tanzania, particularly in Dar es Salaam, where often striking juxtapositions of wealth and poverty are visible in the landscape. The adoption of structural adjustment programs, while clearly not the only factor driving the changes in agriculture in the peri-urban zone, have facilitated the development of a thriving land market and produced factors that have pushed urban growth further from the city center.

The following three chapters will examine in depth the ways that agriculture, land use and livelihoods within Dar es Salaam's peri-urban zone have changed since the country's adoption of structural adjustment programs. I will first briefly discuss changes in spatial structure and migration patterns as these are related to agriculture. I will then examine the development of a land market and discuss the ways in which this has impacted agriculture. Finally, based on data from fieldwork, I will present case studies of three peri-urban villages to the north of Dar es Salaam, all of which have experienced peri-urban growth and change in different ways.

The Growth of the Informal Economy

Tanzania's transition away from *ujamaa* began with its adoption of a National Economic Survival Program in 1981. This program, however, was short-lived and resulted in few real changes to the economic structure present in Tanzania because Nyerere wanted to maintain as much autonomy for the country as possible. In fact, there were very few

structural changes to Tanzania's economy until the later years of Ali Hassan Mwinyi's presidency (1985-1995) and the early years of Benjamin Mkapa's (1996-2005). During this time, parastatal companies were sold to the private sector and the government encouraged investment via domestic and foreign capital (Briggs and Mwamfupe, 2000). Current president Jakaya Kikwete, who took office in January, 2006, has continued the emphasis on privatization of services and foreign investment in the economy that the adoption of SAPs began.

Recent economic reforms have brought with them two sets of relevant changes that have impacted the peri-urban zone of Dar es Salaam. The first of these, the Zanzibar Declaration of 1991, marked a decided shift away from the socialist emphasis of the *ujamaa* years in that it allowed government officials to engage in entrepreneurial activities for the first time. This shift was significant because it acknowledged that "not all informal activities to supplement incomes were undermining the political order...and many activities involved the creation of new products and services vital to the survival of urban dwellers" (Tripp, 1997, p.188). The Zanzibar Declaration therefore marked the government's acknowledgement of a vibrant and growing informal sector and allowed many people who were members of the ruling party to legally engage in informal economic activities for the sake of improving their own livelihoods. Prior to this piece of legislation, such activities had been forbidden on the basis that they compromised the principals of *ujamaa*. The second of these changes was the liberalization of Dar es Salaam's transportation system, which pushed development further out from the city center and opened many previously inaccessible peri-urban areas to residential development (Briggs and Mwamfupe, 2000).

Structural adjustment programs and the subsequent economic liberalization have had profound implications on the way in which the economy in Tanzania operates. Participation

in informal economic activities grew as a result of first, the economic crisis that preceded structural adjustment programs and then by the economic austerity that characterized Tanzania's transition to liberalization (Tripp, 1997). What is most notable about these changes, however, are the ways in which people of different social classes have responded to the changes in different manners. Because wages in the formal sector dropped by as much as 83 percent between 1974 and 1988, people of all social classes relied on income generating activities in the informal sector, including agriculture (Tripp, 1997, p.40). Those with jobs in the formal sector often relied on connections made in the workplace as an entry point into the informal sector. Tripp writes that

“for middle and upper income employees, the workplace often was a source of contacts, a place where one could exchange resources, information and favors useful in operating projects. It also was a source of status. The status may not have been reflected in monetary terms but could be important enough to one's self-esteem to make it worth holding on to the job while one obtained one's real income from a kiosk, piggery, chicken farm or hairdressing salon” (Tripp 1997, p.48).

Involvement in informal activities also helped exacerbate differences in income. Tripp writes “income differentials also expanded significantly as a result of greater reliance on informal incomes [and access] to the informal economy was determined largely by access to capital, with the most lucrative projects requiring the largest amounts of starting capital” (Tripp, 1997, p.59). One of the quickest ways to acquire starting capital was to sell the land one held, a point that I will revisit later.

Changes in Spatial Structure and Population

As a colonial city, Dar es Salaam was divided into three zones, designed to keep the ruling class of whites, the entrepreneurial class of Asians and the lower class of Africans in separate areas. As the city began to grow, it grew mostly along the primary transportation routes out of the city. Three of these roads, Morogoro Rd., Bagamoyo Rd. and Pugu Rd. lead to destinations north and west of the city. Consequently, these areas are where much of

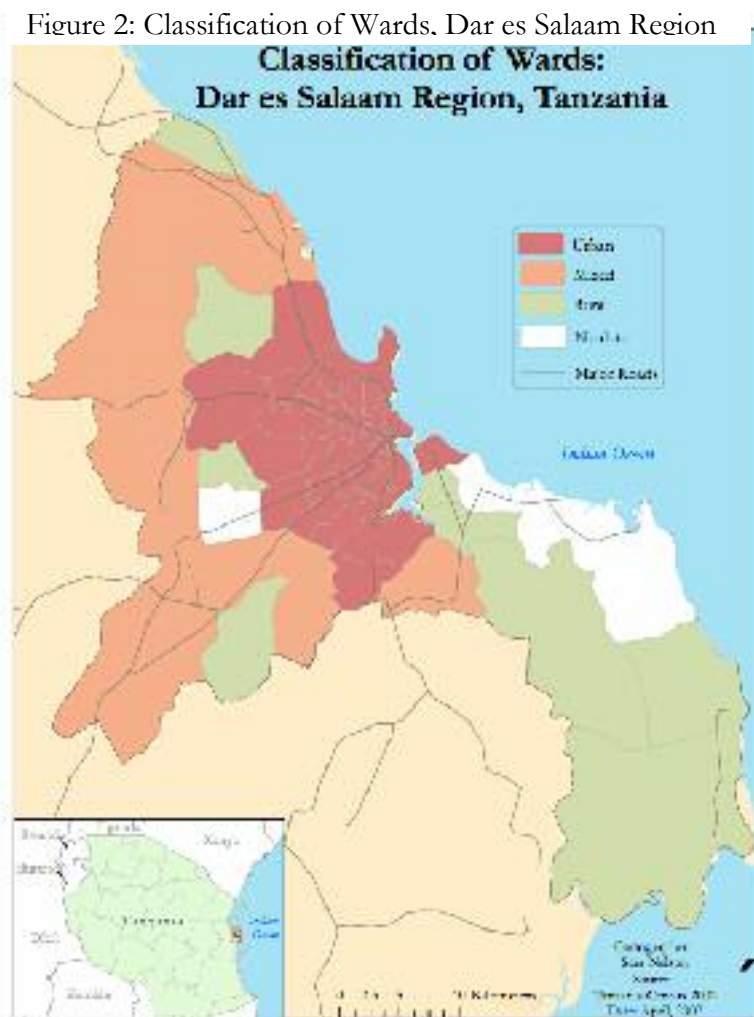
the urban growth has occurred. South of the harbor, Dar es Salaam has experienced less urban growth because this area is not as well connected to the city center and is therefore a less attractive residential option. Figure 1 depicts the growth pattern of Dar es Salaam from 1945 through 1998. It shows that prior to the liberalization of the transportation sector in the early 1990s, much of the growth of the city was concentrated along major transportation arteries that led from the city center out of the city. Because the liberalization of the transportation sector replaced large state-owned buses with smaller minivans known as daladalas, residential areas off the main roads became better connected to the city center, which promoted infill urban growth between the main arteries (Briggs and Mwamfupe, 2000).

Figure 1: Urban Growth in Dar es Salaam, 1945-1998

Available at :
<http://mshand.geog.gla.ac.uk/DAR/tanzania.htm>

Figure 2 further illustrates this pattern of infill growth, showing the classification of the wards in Dar es Salaam region from the 2002 Population and Housing Census. Wards represent the smallest unit at which Tanzania measures population and therefore, are one of the best government-produced data sources of where urban growth is occurring. This map shows that the wards that are classified as urban are concentrated closer to the city center, while mixed wards, meaning those that are a combination of urban and rural, are located along the main roads out of the city. Most of the wards that are not well-connected to the city center remain classified as rural, indicating that even though the liberalization of the transportation sector has led to infill growth, those areas that are not as well connected to the city center have

not experienced as much growth as those that are. Ward level data from the 1988 Population and Housing Census was not available, therefore it is difficult to tell how population has grown and if the classification of

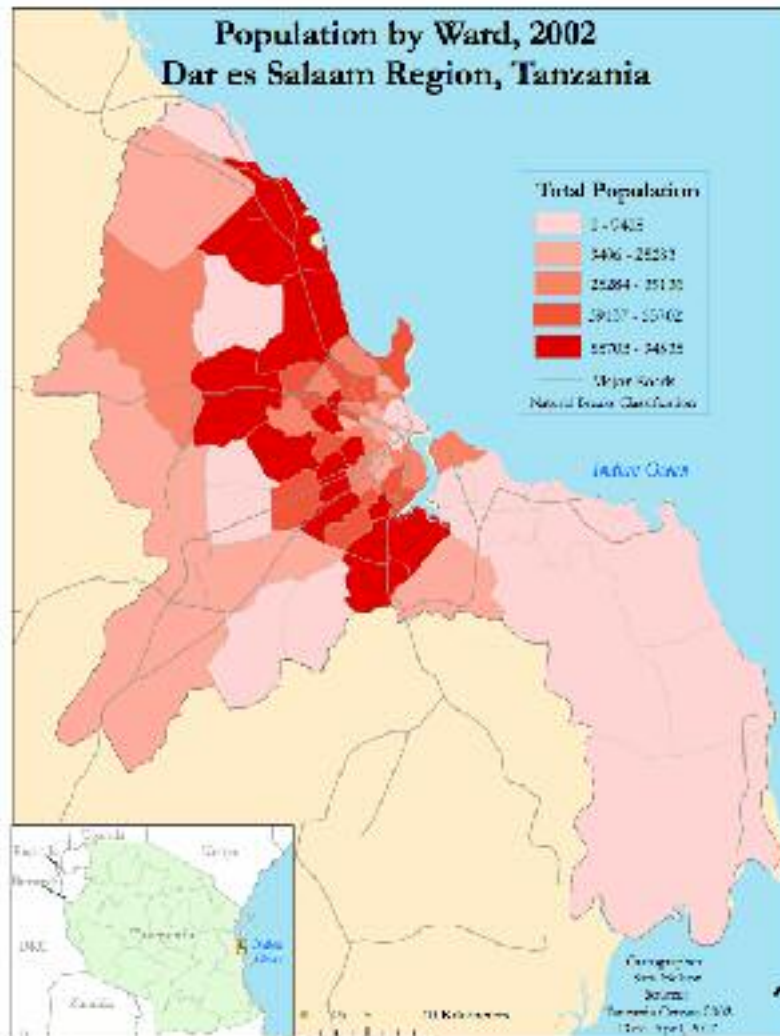


Source: Author

wards has changed since then.

Figure 3: Population of Wards, Dar es Salaam Region

3 shows the population of each ward in Dar es Salaam region and indicates that sheer number of people is not the sole reason for classification of wards as mixed, urban or rural, as many of the wards with



Source: Author

the highest number of people were classified as mixed rather than urban. The wards with the highest number of people also tend to have the largest land area.

In recent years, migration, rather than natural increase, has played the greatest role in shaping the population growth and landscape of the peri-urban zone. Many of those who currently inhabit the peri-urban zone moved there from other places in Tanzania, including

Dar es Salaam itself. Because Tanzania does not keep track of internal migration and conducts a census only when resources permit, one must look beyond government-produced literature to examine trends in migration to the peri-urban zone. At present, there are two distinct trends in migration that are occurring in the peri-urban zone, both of which are impacting the agricultural landscape.

The first involves urban to peri-urban migration among the middle and upper class households. As a result of the liberalization of the transportation system, smaller share taxis and mini-vans known as dala-dalas replaced large state-owned buses. The dala-dala system has allowed transportation to extend off the main arteries and into many previously inaccessible peri-urban areas (Briggs and Mwamfupe, 2000). Further, a housing subsidy provided to civil servants, combined with cheap land has prompted a housing boom in the peri-urban zone among middle and upper-class residents of Dar es Salaam (Briggs and Mwamfupe, 2000). Therefore, the landscape of the peri-urban zone has become increasingly residential as opposed to agricultural as people have moved to peri-urban areas while maintaining social and economic ties to the city. Economic woes in Africa's urban areas have made real estate an attractive investment for middle and upper income households (Yeboah, 2003). Changes in Dar es Salaam's peri-urban zone mirror those happening in Accra, Ghana and other African cities (Yeboah, 2003). Briggs and Mwamfupe (2000) liken this strategy of investing in real estate to a poor farmer's attempts to diversify his livelihood as much as possible in order to minimize risk.

The second migration trend that is currently shaping the population dynamics within the peri-urban zone involves young people migrating to peri-urban areas from rural areas in order to gain a foothold for living in Dar es Salaam. These migrants often rely on social networks in established peri-urban communities in order to gain access to housing,

employment and other resources (Kombe, 2005). People rarely migrate directly from rural areas to Dar es Salaam because the social capital found in peri-urban areas often prove invaluable in the transition from rural to urban living (Kombe, 2005). Another reason that recent migrants first relocate to peri-urban areas is that the cost of living is much lower in these areas than it is in Dar es Salaam. Therefore, migrating to peri-urban areas has proven one of the most viable ways of starting a living in Dar es Salaam.

Chapter 6: The Peri-Urban Land Market and Changing Tenure Regimes

One of the most significant changes to the peri-urban zone in recent years has been the commoditization of land and the development of a thriving land market that has forced agriculture to compete with other, more profitable land uses. The development of such a thriving and, to a large extent, unregulated land market is altering both the physical landscape and the social fabric of the peri-urban zone. In order to understand how and why such a land market developed and the impact its development has had on the peri-urban zone, it is first necessary to understand the process of land tenure and land allocation in Tanzania.

Scholars have tended to describe the process of land distribution in Tanzania as inefficient, outdated and even “chaotic” (Kironde, 1992, p.3). No doubt, land tenure and land allocation are complicated issues in Tanzania. Largely due to the influence of colonialism, two tenure systems, formal and informal, operate simultaneously in Dar es Salaam. In rural areas of Tanzania, land is held through customary tenure. In urban areas, however, land is held under statutory tenure (a vestige of colonialism) and it is expected that the government will be the primary distributor of land. In practice, however, this does not happen and an informal market for land thrives. Land tenure in urban areas is a particularly complicated issue because the sheer number of people in these areas and the disparate interests of groups desiring access to land necessitate the intervention of the state or some other body (Payne, 1997). Nowhere in Tanzania is this phenomenon more visible, or more contentious, than in peri-urban Dar es Salaam where land often faces many of the same pressures as that which is found in the built-up area of the city. Because the peri-urban zone is neither completely urban nor completely rural, questions of tenure and allocation become even more complex.

Before beginning an in-depth discussion of land tenure, however, it is necessary to clarify a few key terms. First, statutory tenure refers to a policy of landholding that is consistent with the mandate of the law. Statutory tenure operates in tandem with the formal land delivery system. Customary tenure is agreed upon via kinship or membership in a group. The holder of land in a situation where customary tenure exists is generally not recognized as the owner of the land in question in a strictly legal sense. Rather, security of tenure arises out of agreement of the members in a group (Payne, 1997). The United Nations defines customary tenure as “rights to use or dispose of use-rights over land which rest neither on the exercise of brute force nor on the evidence of rights guaranteed by government statute but on the fact that those rights are recognized as legitimate by the community”(United Nations, quoted in Payne, 1997). This form of land tenure has its roots in agricultural societies, where communities commonly accepted the idea that land “belongs” to the person who initially cleared it. The land itself had no economic value; rather it served as a means to a secure livelihood. Land, then, is viewed as a resource rather than a commodity. Thus, several groups can claim different use rights to the same land. This idea still persists today, but is beginning to change as people realize they can make money selling land to which they have claim.

The most extreme form of customary tenure is public tenure, where the national government is the owner of all of the land and allocates rights for occupancy or development. The idea behind this is that through allocating resources based on use need, greater equality is achieved, however the administrative systems in charge of distributing land are not always the most efficient at actually achieving equality. Payne (1997) notes that customary tenure has been the most successful in societies where social change and demand for land are modest.

In contrast to societies where customary tenure is practiced are societies where private property is the norm. The idea of private property is so essential to North American and Western European values and legal systems that many countries in these places are referred to as private property democracies (Payne, 1997). Private property can either be for an indefinite period of time (freehold tenure) or for a specified period of time (leasehold tenure). A system based on private property is designed to promote the most efficient and flexible use of land through the unrestricted exchange of land and property in a market based on supply and demand. Therefore, land itself is a commodity with a value assigned to it, rather than a resource. The existence of a market, while it may promote efficiency, happens at the expense of equality. Systems of private property and land markets become particularly problematic when they exist simultaneously with a national land ownership policy, as is the case in Tanzania. The imposition of the concept of private property in a situation where it historically has not been the norm has had profound implications for the way the land tenure system operates in Tanzania.

Concepts of land tenure are, to a certain extent, an expression of the values a society holds. Therefore, the distinction made between national, public and private property becomes important. Tanzania is one of 20 countries in Sub-Saharan Africa that has some form of a national land ownership policy, meaning that the state is the sole owner of all the land in the country. Therefore, the act of individuals buying and selling land is, strictly speaking, illegal. Mabogunje (quoted in Payne, 1997) posits four reasons for why the policy of national land ownership is so common in Sub-Saharan Africa. Many governments believe that national land ownership is consistent with traditional African ideas where groups, not individuals hold land. In many French colonies, national ownership is a vestige of French colonial policy that refused to recognize *de facto*, or customary, land tenure. In still other

places, the policy resulted from the government's intention to improve the efficiency of land allocation for public and private use through state ownership. The final reason Mabogunje cites for national land ownership is socialist legacy. Tanzania falls into the latter category. Originally, Nyerere, decided to maintain the system of national ownership in order to ensure that the African population would have the same access to land as the white and Indian minorities in the country (Kironde, 2000).

Formal Systems of Land Management

Formal systems of land allocation are those that operate within a government-mandated framework. This is known as statutory tenure because it involves tenure under the jurisdiction of the law. In Tanzania, this does not involve an individual purchasing the land itself, but rather usufruct rights or rights of occupancy. The policy of national ownership dates back to the colonial period. Under the Land Ordinance of 1923, all land became publicly owned and was vested in the governor. The colonial state granted rights of occupancy to those who desired plots. All of the land that indigenous communities occupied was grandfathered into the new policy. Therefore, Tanzanians in rural areas were granted rights to keep the land on which they already lived (Kironde, 1995).

This policy, however, did not apply to urban areas in the same way. The British colonial government sought to keep Africans out of urban areas or, for those already occupying Dar es Salaam, segregated from the more affluent Indian and white population. The city was divided into three administrative zones, one reserved for whites, one for the class of Indian merchants and one for Africans, the idea being to keep Africans as far away as possible from economic centers within urban areas (Kironde, 1995). Whites and the Indian business owners lived and worked in the area around the harbor, which is today the central business district of Dar es Salaam. Africans were relegated further west to Kariakoo,

which today is one of the most densely settled areas of the city. Also during the colonial period, urban administrative boundaries were kept artificially small in order to deny the African population living in cities access to urban services (Kironde, 1995). Such isolation is one of the contributing factors to the growth of the informal system of land delivery in Dar es Salaam as the African population relied on customary tenure.

Until 1974 it was possible to obtain urban land directly from the government, because the government had extra land to dispose of and openly invited interested parties to apply. Now, however, the process has become much less streamlined. The allocation process is a complicated one in which an individual desiring land must first apply to a district official requesting a desired parcel. The application, when approved, is then sent to an allocation committee that makes the final decision on the matter. The process is complicated and time-consuming and there is a large backlog of land requests that have not been approved.

Kironde (1995) notes that in practice, the formal system of land delivery does not work because the demand for plots far outstrips the supply. Between 1977 and 1986 the Dar es Salaam City Council, at the time in charge of allocating land, received 212,446 applications, surveyed 27,622 plots and allocated 20,622, less than 10% of the total requested (Kironde, 1992). Further, between 1999 and 2001 the government received 243,473 applications for land, but allocated only 8,209, an even smaller percentage of the total requests (Kombe, 2005). Kironde (1992) attributes this lack of efficiency in allocation of plots to chaotic procedures and records, tardy bureaucracy and lack of oversight. The inadequacies of the existing system of allocating land have, in part, contributed to the growth of informal land allocation, which will be discussed in greater detail in a later section.

In the early 1990s, when the country was in the midst of its economic reforms, the government began discussions regarding revisions to existing land laws in Tanzania. These

discussions were in part motivated by tensions resulting from a bias that favored production of export crops over small-scale agriculture, increasing demand for land from the mining and tourist industries, conflicts between farmers and pastoralists, foreigners and locals and between government conservation agencies and local people living near parks that had created conditions of land scarcity, insecure tenure and land degradation (Tsikata, 2003). During this time, Tanzania also adopted a system of multiparty democracy and the ruling party, Chama cha Mapunduzi (CCM) largely abandoned socialism as its ideology.

After years of debate and discussion, 1999 brought with it the passage of the two most recent pieces of legislation dealing with land tenure in Tanzania. The first, the Village Land Act, concerned only land in rural villages. The second piece of legislation, the Land Act, dealt with land throughout mainland Tanzania. This piece of legislation stated that use and occupation would still be allocated through usufruct rights and customary rights of occupancy, but that each would be equal in the eyes of the law. It also retained the power to allocate land and its ownership in the central government (Tsikata, 2003).

Informal Systems of Land Management

Informal means of obtaining land are the most common means of obtaining land in the peri-urban zone, since much of it lies outside of formal planning regulations. The informal system of land allocation operates outside the government-mandated framework. Strictly speaking, the buying and selling of land in Tanzania is illegal, as the government is the owner and provider of land. Yet, particularly in peri-urban Dar es Salaam, an informal market for land operates and even thrives. Land exchanged on the informal market is considered privately owned because the people occupying it have recognized authority over the land (Kironde, 1995). Such authority does not come from any sort of government mandate, but rather from community level social structures.

Though it seems as though a system of land distribution that arises more organically would better promote equality of access to land, in reality it suffers from many of the same problems as the formal system. Customary tenure is problematic because it does not ensure access to an inheritance of land for marginalized groups, particularly women and those lacking access to capital (Tsikata, 2003). The Tanzanian government has historically been somewhat unwilling to accept that such a market exists, thus has made few attempts to regulate it. Kironde (2000) asserts that this has resulted because the government does not believe that such a market is a major source of urban land or because the government does not recognize the sale of undeveloped land and therefore does not acknowledge that such markets exist. Because the market relies almost totally on the interaction between buyer and seller, the price quoted for land does not often accurately reflect its value and can either be much lower or much higher than if the land were officially appraised.

It is important to note, however, that informal is not the same as illegal and that there are legal ways of obtaining land informally. Informal, in the case of Tanzania, is not synonymous with “slum” or “squatter settlement” as it is in many other places. Informal simply means “settlements that have developed outside the official land development process and planning procedures” (Burra, 2002, p. 144). Informal means of obtaining land are common in urban and especially peri-urban areas, both for the poor and other social classes (Kironde, 1995). Unlike in many other countries, however, the property rights of informal landholders are not insecure. A court case in 1985 declared that the rights of landholders in a particular area not extinguished when an area is declared a planned area (Kironde, 1995). Land can be obtained informally through a number of means including occupation without permission, allocation by community leaders and landholders, inheritance and outright purchase. Occupation of government land without a permit is

rather uncommon as much of the government land within Dar es Salaam was largely exhausted, meaning it was already developed, at the time of independence (Kironde, 1995). Inheritance is the most common means of obtaining land in the inner city, particularly in the zones where Africans were made to live during the colonial period. In the city's peri-urban zone, however, purchase where actual cash is exchanged is the most common means of obtaining land informally (Kironde, 1995).

Informal means of obtaining land is not limited to unplanned areas. Frequently, planned land is allocated informally as well. This allocation takes a number of forms including local officials selling abandoned or unallocated land. Also plot allottees can sell undeveloped land. This process is, in most cases, illegal, but the government allows it for reasons of "love and affection," terms which many interpret quite broadly (Kironde, 1995). This loophole in the law is one of the major contributors to the development of a land market and the commoditization of land. The final, legal, way in which people gain land through informal means is through developing land and then selling the developments on the land, which gives the purchaser the right to use the land itself.

A number of communities, particularly in Dar es Salaam's peri-urban zone, have developed their own informal, but highly regulated, systems of land exchange. There are no formal guidelines but the buying and selling of land is regulated through local, community level structures. These meetings usually include the buyer, seller, broker and local leaders (Kombe, 2005). Such local level community-regulated structures highlight a number of aspects about the informal land market. First of all, the development of such highly regulated structures makes it very difficult for the government to deny that such a market exists. Further, it helps add legitimacy to the transactions because there are so many outside parties involved.

Still another important point to note about informal land distribution is that it is not strictly poor households that are involved in the practice. First of all, the government allocates land at a relatively cheap price. This policy was originally designed in order to assure more equal access for land. However, in practice, this policy has marginalized all but the most powerful members of society. According to Kironde (1995),

“the rationale behind such cheap land policy has always been that land is national property to which anybody, particularly low income households, is entitled and that putting a high cost on land would prevent its acquisition by the urban poor. In fact, this policy, inherited from the colonial era, has only served to allow the socially powerful members of society to get access to planned land cheaply.”

Therefore, many middle and even upper income people find themselves living and sustaining a livelihood in unplanned areas (Durand-Lasserve and Royston, 2002). Because these groups can afford to purchase land at a higher price than poor groups, it is largely the activity of the middle and upper class that is driving the operation of the land market. This practice, however, may make the condition of the very poor worse (Kironde, 1995).

Impacts of the Land Market on Peri-Urban Agriculture

Among the places in Dar es Salaam where the land market is most visible and most salient is in the city's peri-urban zone because this is where the city is expanding most rapidly. Briggs and Mwamfupe (1999) argue that the structural adjustment policies Tanzania enacted in the mid 1980s have lessened the effects of the economic crisis for the middle and upper class. They write “there is an argument, therefore, that structural adjustment conditions have again militated against the urban poor and have very much benefited the emerging urban ‘middle class’ in the peri-urban zone” (Briggs and Mwamfupe, 1999, 278). Tripp (1997), in her extensive study on the changes in the informal economy of Dar es Salaam brought on by liberalization, also notes the exacerbated inequalities that have followed structural adjustment policies. Tripp (1997) emphasizes the role that access to start

up capital plays in success in the informal economy. Selling off land has become one of the primary means of gaining access to such capital. However, because access to land is essential to the survival strategies of many, selling off land may in fact worsen the economic situation of many who cannot afford to buy other properties in a market where land values are quickly inflating.

The increase in urban poverty has led a number of poor landholders to sell their land in order to meet social and economic obligations, which, in turn, limits people's ability to sustain a livelihood (Kombe and Kreibich, 2000). Those who have benefited from structural adjustment are able to buy land from willing sellers in the peri-urban zone of the city, which has created two factors that exclude the poor from land. Land speculation, where a person buys a plot of land waits until it appreciates in value and then sells the land, is a common practice in the peri-urban zone of Dar es Salaam (Briggs and Mwamfupe, 1999). At the rate the value of land appreciates, speculation is also a lucrative practice. Briggs and Mwamfupe (1999) found that a plot (of unspecified size) of the highest quality, most desirable land in the peri-urban zone was, when adjusted for inflation, selling at 350,000 Tanzanian Shillings (TSh) in the early 1990's. By 1998, the same plot was selling for 5 million TSh. Real estate, which further adds value to land, has also become a common means of investing for the middle and upper class.

Briggs and Mwamfupe (2000) further elaborate on the ways in which the development of a land market has impacted the practice of agriculture within the peri-urban zone. Many farmers cited that because of the existence of such a land market, they were likely to sell their plots of land and leave farming altogether. Further, those with the largest farms, which one would traditionally think of as having the most potential for being economically viable, are actually the most likely to want to sell land. First, this type of sale is

actually the most profitable because land can be subdivided and therefore sold at a greater profit. Second, because very little agriculture is mechanized, the costs of having a large farm, in terms of the labor necessary to keep it running, may outweigh the benefits.

Chapter 7: Case Studies

It is estimated that about 35,000 farming households in Dar es Salaam’s peri-urban villages depend on fruit and vegetable production for their income (Jacobi et al, 2000). Though this statistic does not indicate whether farming is the sole source of income or not, it does shed light on the economic importance of peri-urban agriculture. It is difficult, however, to put this statistic in context because there is no hard and fast boundary of the peri-urban zone. Therefore,

its total population is difficult to estimate. Agriculture was not the sole or even primary source of income for any of the people with whom I conducted interviews and I would count all of my informants as part of the group that has benefited, at least to a certain extent, from Tanzania’s recent economic reforms. Two of

Figure 4: Case Study Locations



Source: Author

them are well aware of and actively engaged in the land market, perhaps even in land speculation. Nonetheless, for all of my informants, peri-urban agriculture is an important part of each one’s livelihood strategy and serves as a means of investing in the future.

Goba

Goba sits on a plateau midway between Morogoro Rd. and Bagamoyo Rd. to the north of Dar es Salaam (see Figure 4). The 2002 Tanzanian Population and Housing Census classifies the area as rural and estimates that the population of Goba ward, of which the village of Goba is a part, is about 8,000 (United Republic of Tanzania, 2002). Goba was established as part of the villagization program and many of its residents are originally from the interior of Tanzania. A great many of those who live in Goba are Gogo from Dodoma Region. A dirt road, which connects Morogoro Rd with Bagamoyo Rd, runs through the middle of the village. There is no market in Goba, but there are a number of small shops, churches, mosques, a primary school and a dispensary. Regular transport runs along the road connecting residents to the daladala system of Dar es Salaam, which allows easy access to the amenities found in town as well as those in the nearby villages of Mbezi and Mbezi Beach.

My informant in Goba was Dr. Mbaga a professor at the University of Dar es Salaam. Mbaga's foray into peri-urban agriculture began in the late 1970s when he began keeping pigs at his home in Changanykeni, another peri-urban village, in order to supplement his income from the university. When pig feed became too expensive, he sold the pigs and transitioned to milk cows. Around the same time, he acquired a two-acre plot of land in Goba. Mbaga moved his cows from his home near the university and began selling the milk to villagers in Goba. What he terms "the cow project" lasted about five years until the Catholic Church donated 26 cows to villagers in Goba. With the new influx of cows, Mbaga quickly lost his market for milk and decided to abandon the project. He now has only one cow. Now, his primary focus is on growing pineapples, coconuts, oranges and maize. He says that his family and neighbors eat much of what he grows, but he sells some to middlemen who market it in Dar es Salaam.

Mbaga said he faces a number of problems when farming. His main concern is the climate and lack of water. Dar es Salaam has distinct rainy and dry seasons; therefore, making sure crops and livestock receive an appropriate amount of water proves problematic. Another major problem Mbaga mentioned is extension services for peri-urban farmers. Mbaga said “there are not enough [extension officers] or they are not doing the right thing, so a lot of us lose our animals [to disease] and we don’t get enough advice on what crops to grow.” Mbaga said that his system of planting and caring for crops reflects this lack of knowledge. He says his planting system is a somewhat haphazard experiment in seeing what will grow given the conditions in Dar es Salaam.

Still another problem Mbaga emphasized was trouble finding trustworthy farm help. Since Mbaga has a full-time job at the university and visits his farm only on weekends, he employs a helper to care for his crops and tend the livestock while he is not at the farm. The manager lives on the farm and receives room and board and a monthly salary of 40,000 Tsh. Mbaga has worked with his current manager since the late 1970s.

Mbaga emphasized again and again that, to him, farming is not a professional activity. Rather, it serves the dual purpose of being a constructive hobby and a means of investing in his future. Mbaga plans to retire to his farm in Goba and is working to ready the farm for his retirement. He has built a house on the property and plans to earn money after his retirement both from a small pension the university provides and income generated from renting rooms at his home near the university. Having a farm, Mbaga said is “a status symbol these days...if you have a farm, that’s an indicator that you are forward looking.” Thus, for Mbaga, agriculture is an investment in the future.

Another advantage Mbaga cites for participating in peri-urban agriculture is the appreciation of land value. In addition to his two-acre farm, Mbaga owns another nine acres

in Goba. An ailing man bequeathed Mbaga this property as a gift in exchange for caring for him. Mbaga estimates that this property is worth about 50 million Tsh now. He is leaving the land undeveloped because he says it is too big to farm well. He said that if he is offered the right price, he may sell the land, but for now, he is retaining it. He said he plans to increase the value of the property by building a house on it, which he says is an important asset to any land in peri-urban areas.

Mbaga seems well aware of the land market that has developed in the peri-urban zone of Dar es Salaam. He said, “a lot of people who live around Dar es Salaam are selling off their land because they look at money as if it’s a big thing. In fact, it’s nothing compared to what they are selling.” He said that in such situations, the buyer is often advantaged because the seller has invested very little in the property he or she is selling. While there is new construction in Goba, there is not as much here as in other peri-urban villages, perhaps because this is a more rural area and the village is not on a main road. Mbaga did note, however, that recently, there has been an influx of retired people to the area who have acted as catalysts for development. Many of these people are now starting to open small restaurants and bars in the area. Such activity, he believes, will make the land more valuable in the future.

Changanykeni

Changanykeni, a small village on the hill above the University of Dar es Salaam, is home to a number of retirees and current civil servants who maintain gardens, small farms or a few livestock (see Figure 4). The village is easily accessible by daladala from the campus of the University or from Ubungo market. Changanykeni is home to the East African Statistical Training Center and the Uplands Centre Hostel. Most of the residents of Changanykeni are civil servants or university employees. Changanykeni is more densely

settled and closer to the city than any of the other areas I visited. It still, however, maintains a rural feel.

In Changanykeni I visited the home and farm of Mama Matenda, a retired government employee. She worked as a veterinarian for many years before retirement. She moved to Changanykeni in the late 1970s began keeping chickens during the economic crisis of the early 1980s. A poultry project, which started as a way of using the skills she learned in her job to help provide food for her family, has now grown to include about 500 chickens, all of which she keeps in two large chicken houses on her property. She also has a few cows. She collects and sells the eggs each day either in the village or in the nearby markets at Mwenge and Survey. When the chickens get too old and cease to produce enough eggs to turn a profit, she sells them to be slaughtered.

One of the major problems Matenda faces in her chicken project is that the price of eggs fluctuates quite a bit depending on the market. If she is not able to get enough money from selling her eggs, then feeding the chickens becomes a problem. She said that now, however, the price of eggs is good, so her biggest concern is bird flu.

Matenda and her husband own the land on which they have their house and her chickens. They have no plans to sell the land anytime in the near future. Her husband, a retired civil servant, stressed that the chickens are purely her project and he has nothing to do with it. Matenda says she keeps chickens mostly because she enjoys it. She also mentioned extra income and food for her family as reasons for keeping chickens.

Matenda's view of the word "investment" is not the same as Mbaga's. Since she has no plans to sell the land she owns and has already retired in a comfortable place, the focus of her agriculture is not the future. Rather, she sees the income she generates from selling eggs

as a way of helping to ensure her family's long-term economic security through generating income in the present.

Mbezi/Kibaha

Mbezi, a rapidly urbanizing village, is located along Morogoro Rd., to the northwest of Dar es Salaam (see Figure 4). In this village, I visited the home and farm of Mr. Kitundu, a staff member at the University of Dar es Salaam. On this visit, I also traveled to another farm Kitundu owned, located in Kibaha District of the Coast Region because he wanted me to be able to talk to peasants. He said, "there are no peasants left in Mbezi." Kitundu said that 10 years ago, Mbezi was primarily an agricultural area. Now, however, it is rapidly developing. Kitundu said this rapid urbanization is happening because peasants are selling their land to people from town who want to move out of the city.

Mbezi is a mix of new residential construction, some homes with paved driveways and manicured lawns and older houses constructed out of concrete or traditional methods. In 2002, the population of Mbezi was 32, 641 (United Republic of Tanzania, 2002). Kitundu lives about 2 kilometers off Morogoro Rd. in a small concrete house with his wife and children. He purchased the land in 1992 and has been living on his plot since 2001. Prior to moving to Mbezi, he lived in staff housing on the campus of the University of Dar es Salaam. Now, he commutes to work daily and, depending on traffic, the drive takes about 40 minutes.

At his home in Mbezi, Kitundu has about 50 pigs. He said he slaughters them, sells them and uses the profits to help pay for his children's school fees. He also keeps ducks and chickens and grows maize, coconuts and oranges. He said that when he has extra food crops he sells them both in the village and in town, but most of what he grows is for his family.

Because he has a full-time job, he has hired a helper from the village to take care of the pigs. His children and grandchildren help him tend the crops.

Kitundu is another peri-urban farmer who is looking to agriculture as a means of investing in the future. Kitundu said that having land in Tanzania is an important investment and that with land; one has far more opportunities than without it. He, however, has set his sights outside the peri-urban zone of Dar es Salaam and bought property in Kibaha District of the Coast Region, adjacent to the northern part of Dar es Salaam region. Here, he owns two farms. One is eight acres and the other is smaller. The primary purpose of these farms in the present is cassava for commercial marketing. He is working to develop a timber tree project that he hopes will provide him with enough income to retire on the property. He employs two assistants on the larger farm. One lives in a house on the farm and another lives nearby. According to Kitundu, people who live in Dar es Salaam own much of the land in this area and many of the local peasants are employed to care for the land.

Discussion

A three-interview sample is hardly a large enough one from which to draw broad based conclusions about the practice of peri-urban agriculture in Dar es Salaam. These interviews, however, are useful for exploring the experiences of individual farmers and presenting opportunities for further research. That said, these interviews yielded two significant observations that deserve further investigation. The first of these relates to the role agriculture plays in investment and the second to the role of social class in peri-urban agriculture.

Each of my subjects specifically mentioned the word “investment” in his or her interview without having been asked a question that might prompt that response. However, people spoke of investment in different contexts. Some of the subjects viewed the land they

owned as more of an investment and others looked at the income they generated from agriculture as a means of investment. It was clear from the interviews, however, that one of the primary reasons for practicing agriculture, at least for those who are members of the middle and upper classes, was security in the future, whether that meant a place to retire, land to give children or enough money to live comfortably. Because a secure future was such an important criteria for practicing agriculture, the subjects were willing to change what they grew as markets changed, helping to ensure a somewhat profitable endeavor.

The commoditization of land in the peri-urban zone is profoundly changing the nature of the landscape there. As land speculation has become more widespread and agriculture more oriented toward commercial purposes, greater class divisions among those who live and work in peri-urban Dar es Salaam are becoming more evident. However, even for those who are among the middle and upper classes, agriculture is an important survival strategy for two reasons. First, because wages in the formal sector are often low, agriculture provides an important means of generating extra income and diversifying assets. Second, because Tanzania provides little in the way of pension upon retirement, investing in a farm in a peri-urban area becomes an important way of securing livelihood after retirement, for those who have the means of doing so. Investing in land in a peri-urban area can either provide a place for retirement or a source of income following retirement.

The second significant observation the research yielded was the role of social class in the practice of agriculture. None of my subjects relied on agriculture as his or her sole or primary source of income. Tanzania has a near non-existent middle class, or so it seems at the outset. The term middle class is nebulous and difficult to define, particularly in the context of developing countries. Recalling Lugalla's (1995) determinants of class in Dar es Salaam, my informants could be classified as "middle class", falling into Lugalla's third group

because they own cars and houses, maintain jobs in the formal sector, but still rely on agriculture and other sources of income to maintain a livelihood. The fact that there is a land market operating in the peri-urban zone has led to the availability of a lot of land at a price that is affordable for some. At the same time, rising land prices are squeezing out the poor from owning land. Many now farm the land other people own and supplement their earnings with odd jobs.

Mwamfupe believes one of the main criteria for helping to determine the purpose of farming is whether the farmer lives in Dar es Salaam or in a peri-urban area (Mwamfupe, 1994). However, much has changed about the peri-urban zone of Dar es Salaam since 1994. Not only has the population of the peri-urban zone grown substantially, but also the implementation of liberalization policies has led to an ever-growing gulf between rich and poor Tanzanians. Thus, there are many more middle to high-income residents of the peri-urban zone than there were even 10 years ago, as evidenced by the new construction one sees in almost every village within the zone. Many of these people rely on agriculture to supplement earnings from formal jobs or to reduce household food costs. Therefore, it is important to include this type of peri-urban farmer, medium to high-income peri-urban residents who rely on agriculture to supplement income or as a means of investment in any sort of classification.

Agriculture in the peri-urban zone is also affecting changes in the social structure of Tanzanian society as it is helping to create a class of middle and upper income farmers who are residents of the peri-urban zone Mwamfupe (1994) identified five types of peri-urban farmers based on residence and their reason for farming. Noticeably absent from this classification of farmers are middle and upper income peri-urban residents who rely on agriculture partially for present needs and partially for investment in the future.

Figure 5: Peri-Urban Farmers

	City-Based Food Producers	Hobby Farmers	Peri-Urban Food Producers	The “Land Poor”	Capitalist Farmers
Farmer’s Background	-City Residents -Poor or Middle Income	-City Residents -Mid to High Income	-Peri-urban residents -Low income	-Peri-Urban Residents -Low income	-City Residents -High Income
Farm Size	Small plot (1-3 acres)	Med. Sized (5- 10 acres)	Small to Medium	Small (less than one acre)	Large Farms (20-50 acres)
Importance of Farming	Food Security	Hobby	Food Security	Food Security	Business
Choice of Main Crops	Food for Household	Food Crops	Food and Cash Crops	Food Crops	Market Oriented

Source: Adapted from Mwamfupe, 1994

That this group of farmers was not referenced in Mwamfupe’s original classification of peri-urban farmers provides some evidence that the social make-up of the peri-urban zone has changed since his original study. When his study took place, many of the middle and upper-income peri-urban farmers were city residents, now many of them are actually residents of the peri-urban zone.

Statistics from the Household Budget Survey of 2000/01 indicate that agriculture is not a prominent primary source of income in Dar es Salaam region. Researchers found that farming was the main activity of 3% of adults in Dar es Salaam Region, compared to nearly 69% of people in mainland Tanzania (United Republic of Tanzania, 2002a). Further, farming accounts for the main source of household cash income for just under 4% of residents in Dar es Salaam Region, which includes both the city and the peri-urban zone (United Republic of Tanzania, 2002a). However, both in the city and outside of it, one sees evidence of farming everywhere. This presence of farming one sees is not consistent with the statistics. As it is obvious that many more people engage in agriculture in both the city of Dar es Salaam and the peri-urban fringes surrounding it, it seems that the statistics have missed something. The Household Budget Survey did not look into the importance of agriculture as a secondary source of income or as a means of reducing household food costs.

Though agriculture may not be the primary means of earning income for most of the residents of Dar es Salaam, it is still important to the livelihoods of many, be they the urban poor, the emerging middle class or the upper class.

Chapter 8: Conclusion and Further Research

Hobby farms and the appropriation of nature at the urban fringe have become commonplace in cities throughout the developed world. At first glance, the changes in occurring in Dar es Salaam's peri-urban zone characterized by a residential boom in peri-urban areas and the movement out of the city by those who can afford to, bear an almost uncanny similarity to the changes happening on the urban fringe in North America and the rest of the developed world. The changes occurring in Dar es Salaam, though they do, in some sense bear similarities to the changes happening in North America are taking place under entirely different economic conditions and entirely different processes of urbanization. For Tanzanians, agriculture is still an essential component of livelihood strategies for the middle and upper classes. Therefore, the agriculture undertaken by this group in the peri-urban zone of Dar es Salaam has a far more calculated and economically relevant purpose than do hobby farms at the urban fringe of cities in the developed world. Farming in peri-urban areas represents a constructive hobby and a way of coping with economic hardships while simultaneously investing in one's future.

The agricultural changes occurring in Dar es Salaam's peri-urban zone are driven by a complex set of factors both external and internal. The commoditization of land and the development of a thriving land market have both helped change both the physical and social landscape present in the peri-urban zone. Based on data from fieldwork conducted in three peri-urban villages and a review of existing literature, this paper has examined the ways in which economic liberalization, brought on by structural adjustment policies has influenced changes in agriculture, land use and livelihood in peri-urban Dar es Salaam, Tanzania. Focusing on middle- and upper-class residents of the peri-urban zone, this research has shown that this group is a relatively new trend. Further, this group frequently relies on

farming and ownership of land within the peri-urban zone as a means of securing a livelihood in the present, while simultaneously investing in the future. This paper has situated these changes within the framework of urban political ecology, emphasizing the causal links between larger structural factors and a changing relationship between humans and the environment.

Yet, it is important to keep in mind that humans operating within these structures do have agency. The agency of human actors in the context of the changing agricultural landscape of the peri-urban zone cannot be undervalued in this case. Structural conditions in Tanzania have helped to create poverty and inequality and land speculation by the middle and upper class has helped exacerbate such problems. However, looking at such actions as a means of investing in one's future in a state where retirement pensions are nearly non-existent adds a new dimension of complexity to the issue. Looking at the issue through the lens of middle- and upper-class peri-urban farmers, it becomes more difficult to frame the issue as one of exploitation of one class of people by another. Rather, these changes can be seen as an individual response to coping with economic austerity and uncertainty, as urban residents, particularly those with jobs in the formal sector were among those most profoundly impacted by Tanzania's economic reforms.

Completing this research has raised a number of questions and presented many opportunities for further research. Chief among these questions is a better understanding of the reasons behind middle and upper-income household's migration to the peri-urban zone and the places where this migration is occurring. Peri-urban farming is a common phenomenon among people of all social classes in Dar es Salaam, but the movement of middle and upper class households from Dar es Salaam to its peri-urban zone is a relatively new phenomenon. This movement is widely discussed among the residents of Dar es

Salaam, but there is little written about it in academic literature. Related to this is a better understanding of the changes in land values and what, if any, patterns these changes follow. Since the land bought and sold in the peri-urban zone takes place outside of any sort of government infrastructure or regulation, it is difficult to tell exactly where such transactions are taking place and how much the land is actually selling for. Another question this research raises involves examining the environmental impacts resulting from the changes in peri-urban agricultural land use. Since Dar es Salaam and its surrounding areas are not optimal for intensive agriculture, one has to wonder what happens to those who rely on agriculture as a primary source of income after they sell off their land.

At present, this paper has greater theoretical implications than it does practical. Time constraints limited my ability to collect empirical data on the topic. Nonetheless, this paper sheds light on a number of important areas. First, it highlights the importance of place and scale when attempting to conceptualize development. The peri-urban zone, while deeply connected to both Dar es Salaam and surrounding rural areas, faces a set of problems that are unique because it is not entirely urban nor entirely rural. When examining the processes of change occurring there, it is important to keep this unique position within the urban system in mind. The changes happening in the peri-urban zone also highlight the chains of relationships between what happens on a local scale and what happens on a national or global scale. Tanzania's transition from socialism to neo-liberalism has had a direct impact on the way agriculture is practiced within the peri-urban zone. These changes in agriculture, brought on by the commoditization of land represent a spatial manifestation of shifts in Tanzania's economic transition.

With these theoretical implications in mind, this paper contributes to the study of political ecology in a number of ways. In one sense, this research represents a case of "classic

political ecology” because it emphasizes the connections between larger structural forces and local environmental realities. In another sense, it marks a departure from the approaches of traditional political ecology because of its focus on an urban area, which requires a re-examination of where nature stops and city begins and brings the fore the centrality of land and agriculture to maintaining livelihoods, even in urban areas. Therefore, this research also contributes to the growing literature on urban political ecology, most of which has, to date, focused on urban environments in the first world. Because peri-urban areas lie at the intersection of urban and rural, studying them through the lens of political ecology offers a new direction within both peri-urban research and political ecology.

Political ecology, in both the classic and newly fashioned urban sense, thrives on an understanding of nuance and complexity. Dar es Salaam’s peri-urban zone is at the intersection of ideological, social and environmental change in Tanzania. The peri-urban zone is a place that is neither completely urban nor rural and where land tenure is neither completely formal nor completely informal. Understanding the complexities inherent within the system of land tenure and the ways it operates are vital to understanding the changes happening within the peri-urban zone. Beyond that, situating these complexities in the context of larger factors internal and external to Tanzania and recognizing the agency of people acting within those structures is also important for understanding them.

Works Cited

- Adell, G. (1999). "Theories and Models of the Peri-urban Interface: A Changing Conceptual Landscape." Literature Review for the Strategic Environmental Planning and Management for the Peri-urban Interface Research Project, London: The Development Planning Unit, University College London
- Asabere, P. (1981) "The Determinants of Land Values in an African City: The Case of Accra, Ghana" *Land Economics* 57 (3) 385-397
- Blakie and Brookfield (1987) *Land Degredation and Society* New York: Methuen and Co.
- Briggs, J. (1991) "The Peri-Urban Zone of Dar es Salaam, Tanzania: Recent Trends and Changes in Agricultural Land Use" *Transactions of the Institute of British Geographers, New Series* 16 (3) p. 319-331
- Briggs, J. and D. Mwamfupe. (1999) "The Changing Nature of the Peri-Urban Zone in Africa: Evidence from Dar es Salaam, Tanzania" *Scottish Geographical Journal* 115(4) 269-282
- Briggs, J and D. Mwamfupe, (2000) "Peri-Urban Development in an Era of Structural Adjustment in Africa: The City of Dar es Salaam, Tanzania" *Urban Studies* 37 (4): 797-809
- Briggs, J. and I. Yeboah (2001) "Structural Adjustment and the Contemporary Sub-Saharan African City" *Area* 33(1) p.18-26
- Browder, J. and J. Bohland (1995) "Patterns of Development on the Metropolitan Fringe" *Journal of the American Planning Association* 61(3) p. 310-328
- Bryceson, D. (1987) "A Century of Food Supply in Dar es Salaam: From Sumptuous Suppers for the Sultan to Maize Meal for a Million" in Guyer, J. (ed) *Feeding African Cities: Studies in Regional Social History* Manchester University Press: Manchester, UK
- Burra (2004) "Land Use Planning and Governance in Dar es Salaam" in K. Tranberg Hansen and M. Vaa *Reconsidering Informality: Perspectives from Urban Africa* Nordiska Afrikainstitutet
- Dunn, K. (2005) "Interviewing" in I. Hay (ed.) *Qualitative Research Methods in Human Geography* New York: Oxford University Press
- Durand-Lasserve A and L. Royston (eds) (2002) *Holding Their Ground: Secure Land Tenure for the Urban Poor in Developing Countries* London: Earthscan Publications
- Ford, T. (1999) "Understanding Population Growth in the Peri-Urban Region" *International Journal of Population Geography* 5 p. 297-311

Freidberg, S. (2001) "Gardening on the Edge: The Social Conditions of Unsustainability on an African Urban Periphery" *Annals of the Association of American Geographers* 91(2) 349-369

Hantrias, L and S. Mangen (eds) (1996) *Cross-national Research Methods in the Social Sciences* New York: Pinter.

Heynen, N and E. Swyngedouw (2003) "Urban Political Ecology, Justice and the Politics of Scale" *Antipode* 35:5, 898-918

Heynen, N, M. Kaika and E. Swyngedouw (eds) (2006) *In the Nature of Cities: Urban Political Ecology and the Politics of Metabolism* London: Routledge

Heynen N, H.Perkins and Roy (2006) "The Political Ecology of Uneven Urban Greenspace" *Urban Affairs Review* 42(1) p. 3-25

Hovorka (2004) "Entrepreneurial Opportunities in Botswana: (Re)Shaping Urban Agriculture Discourse" *Journal of Contemporary African Studies* 22(3) p. 367-388

Jacobi, P., J. Amend and S. Kiango, (2000) "Urban Agriculture in Dar es Salaam: Providing an Indispensable Part of the Diet" in *Growing Cities, Growing Food: Urban Agriculture on the Policy Agenda*, ed. Nico Bakker et al. Feldafing, Germany: German Foundation for International Development [DSE]

Kearns, R. (2005) "Knowing Seeing? Undertaking Observational Research" in I. Hay (ed) *Qualitative Research Methods in Human Geography* New York: Oxford University Press

Kironde, JM (2000) "Understanding Land Markets African Urban Areas: the Case of Dar es Salaam, Tanzania" *Habitat International* 24, 151-165

-- "Access to Land by the Urban Poor in Tanzania: Some findings from Dar es Salaam" *Environment and Urbanization* 7(1) 77-95

--(1992), "Land Scarcity Amidst Land Abundance: The Paradoxes of Tanzania's Urban Land Policy" *Open House International* 17:1, 3-10

Kombe, WJ. (2005) "Land Use Dynamics in Peri-Urban Areas and their Implications on the Urban Growth and Form: the Case of Dar es Salaam, Tanzania" *Habitat International* 29, 113-135

Kombe, WJ and V. Kreibich (2000) *Informal Land Management in Tanzania*. SPRING Research Series, Vol. 29 Dortmund: SPRING Center

Lugalla, J (1995) *Crisis, Urbanization and Urban Poverty in Tanzania* Lanham: University Press of America

Mabogunje, A. (1986) "Backwash Urbanization: The Peasantization of Cities in Sub-Saharan Africa" in *World Patterns of Modern Urban Change* M. Conzen (ed) Chicago: University of Chicago Department of Geography Research Paper, No. 217-218

- Maghimbi, S. "The Abolition of Peasant Cooperatives and the Crisis in the Rural Economy in Tanzania" in S. Maghimbi and P. Forster (eds.) *"Tanzanian Peasantry: The Economy in Crisis"* Dar es Salaam
- Mbiba, B. and M. Huchzermeyer (2002) "Contentious Development: Peri-Urban Studies in Sub-Saharan Africa" *Progress in Development Studies* 2(2) p. 113-131
- Mlozi, M. (2000) "Urban Agriculture in Dar es Salaam: Its Contribution to Solving the Economic Crisis and the Damage it Does to the Environment" *Development Southern Africa* 13 (1) p. 47-65
- Mwamfupe, D, 1994. "Changes in Agricultural Land Use in the Peri-Urban Zone of Dar es Salaam, Tanzania" PhD Thesis, University of Glasgow.
- Mortimore, M. 1993. "The Intensification of Peri-Urban Agriculture: The Kano Close-Settled Zone, 1964-1986 in BL Turner, G. Hyden and R. Kates (eds) *Population Growth and Agricultural Change in Africa* Gainesville: University Press of Florida.
- Mougeot, L. 2000 "Urban Agriculture: Definition, Presence, Potentials and Risks" in *Growing Cities, Growing Food: Urban Agriculture on the Policy Agenda*, ed. Nico Bakker et al. Feldafing, Germany: German Foundation for International Development [DSE]
- Myers, GA (2005) *Disposable Cities: Garbage, Governance and Sustainable Development in Urban Africa* Re-materializing Cultural Geography Series, Burlington: Ashgate
- Payne, G (1997) *Urban Land Tenure and Property Rights in Developing Countries: A Review* London: Intermediate Technology Publications
- Potts, D. (1995) "Shall We Go Home? Increasing Urban Poverty in African Cities and Migration Processes" *The Geographical Journal* 161 (3) p. 245-264
- (1997) "Urban Lives: Adopting New Strategies and Adapting Rural Links" in C. Rakodi (ed.) *The Urban Challenge in Africa: Growth and Management of its Large Cities* New York: United Nations University Press
- Robbins, P (2004) *Political Ecology: A Critical Introduction*. Malden: Blackwell Publishing
- Riddell, B. (1997). "Structural Adjustment Programmes and the City in Tropical Africa" *Urban Studies* 34(8) p. 1297-1307
- Samoff, J (1979) "The Bureaucracy and the Bourgeoisie: Decentralization and Class Struggle in Tanzania" *Comparative Studies in Society and History* 21(1) p. 30-62
- Samuelson, P. (1983) "Thunen at Two Hundred" *Journal of Economic Literature* 21 p.1468-1488

Sawio, CJ, 1993. "Feeding the Urban Masses? Towards an Understanding of the Dynamics of Urban Agriculture and Land Use Change in Dar es Salaam, Tanzania" PhD Thesis, Clark University, Worcester, Massachusetts.

Shivji, I. (1976) *Class Struggles in Tanzania* New York: Monthly Review Press

Tiffen (2006) "Urbanization: Impacts on the Evolution of 'Mixed Farming' Systems in Sub-Saharan Africa" *Expl Agric.* 42 p. 259-287

Tripp, A.M. (1997) *Changing the Rules: The Politics of Liberalization and the Informal Economy in Tanzania* Berkeley: University of California Press

Tsikata, D (2003) "Securing Women's Interests within Land Tenure Reforms: Recent Debates in Tanzania" *Journal of Agrarian Change* 3: 1&2, 149-183

United Republic of Tanzania (2002) "2002 Population and Housing Census" National Bureau of Statistics: Dar es Salaam

United Republic of Tanzania, (2002a) "2000/01 Tanzanian Household Budget Survey" National Bureau of Statistics: Dar es Salaam

Watts, M. (2000) "Political Ecology" in *A Companion to Economic Geography* E. Sheppard and T. Barnes (eds) Malden, MA: Blackwell Publishers, 257-74

Yeboah, I. (2003) "Demographic and Housing Aspects of Structural Adjustment and Emerging Urban Form in Accra, Ghana" *Africa Today* 50(1):107-119

