

Migration and Micro-level Socio-economic Development of Peri-urban Villages

Migration and Micro-level Socio-economic Development of Peri-urban Villages in Kinondoni District, Tanzania

Milline J. Mbonile*

Abstract

The population growth of peri-urban villages around Dar es Salaam City is largely the result of heavy in-migration from other regions in the country, natural increase and counter-urbanization from the centre of the city due to intensive urban renewal. Most of the people were born in other regions of the country and originate all over the country irrespective of the level of development of the regions. The main factors that influenced out-migration include economic conditions, drought and family conflicts. Intensive resettlement in these peri-urban villages occurred in the 1990–1999 and between 2000–2007 because of intensive urban renewal in the major business areas of the City, and voluntary out-migration of rich households with a strong desire of having big plots of land for resettlement. The major occupation of households in these villages is informal trade, and many are poor households. The most common materials used for shelter are corrugated iron sheets, concrete blocks and cement for the floor. Nonetheless, poor households still construct their houses by using poles and mud. Despite health reforms, many households suffer numerous health problems like the lack of medicine and also suffer from infectious diseases like malaria, and degenerative diseases like cancer. There are households that use electricity for lighting, but use firewood and charcoal for cooking leading to heavy deforestation in neighbouring regions. Most households buy water from neighbours or water vendors and use pit latrines due to lack of piped water. Solid waste disposal is haphazardly thrown near the households and elsewhere.

Keywords: *economic refugees, micro-level development and vulnerability*

Introduction

The term peri-urban is used to describe areas that are in some form of transition from strictly rural to urban. Moreover, these areas often form the immediate urban, or where there is an interface between rural and urban areas. Usually a substantial proportion of population live in these areas, and their livelihood depend to some extent on rural resources such as land for food, water and fuel (Briggs & Mwamfupe, 2000). Meanwhile, economic/environmental refugees are the in-migrants from upcountry who have been

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compelled to leave their places of origin due to economic/environmental changes leading to the decline of agrarian activities and livestock keeping among agro-pastoralists like the Sukuma, and pastoralists like the Maasai (Mbonile, 2005). Hence, as a result of poverty imposed upon them due to environmental degradation, mostly associated with climate changes, masses of young people have been forced to out-migrate to urban areas like Dar es Salaam City where they are largely employed in the informal sector and extraction of natural resources like sand and quarrying stones, which lead to conflicts with city leaders and plot owners (Mbonile, 2008). This study examines the relationship between in-migration and micro-level socio-economic development of three peri-urban village of Boko, Bunju and Ununio in Kinondoni District, in Dar es Salaam.

Objectives of the Study

The main objective of the study is to examine the relationship between economic/environmental migration and micro-level development in the three villages. The specific objectives of the study are to:

1. Examine the driving forces of environmental refugees in the study villages.
2. Assess the socio-economic activities of economic/environmental refugees in the study villages.
3. Assess the vulnerability of economic/environmental refugees in the study villages.

The study will be guided by three research questions:

1. What are the driving forces of environmental refugees in the study villages?
2. What are the major socio-economic activities of environmental refugees in the study villages?
3. What is the vulnerability of environmental refugees in the study villages?

Literature Review

The major impact of rural poverty has been the emergency of environmental or economic refugees in most developing countries. These are the people who can no longer have secure livelihoods in rural areas because of environmental degradation caused by drought, soil erosion, desertification, deforestation and poor irrigation systems due to low technology (Myers, 2005). Above all, poverty associated with climate change has immediate and

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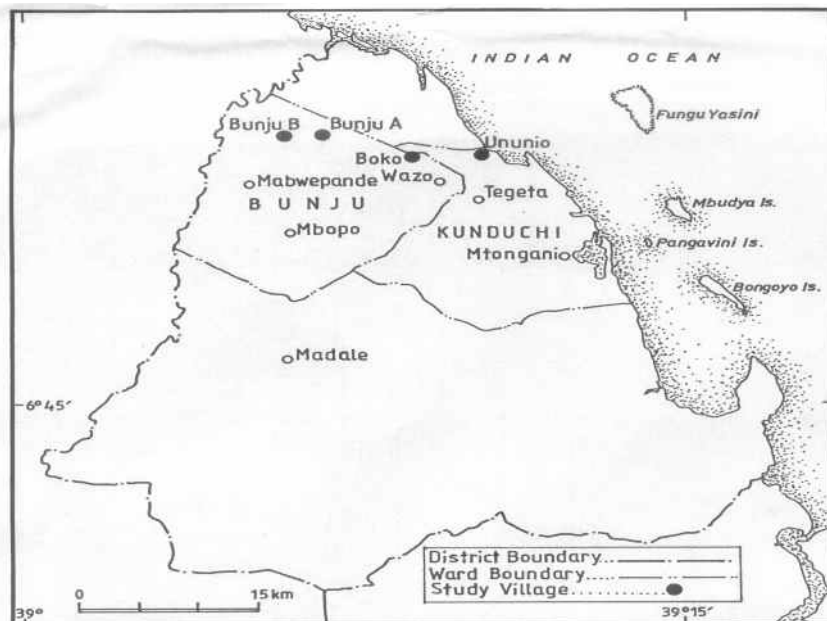
direct impact on the health and livelihood of millions of households that depend on natural resources for their basic livelihoods. More often when the weather changes in developing countries like Tanzania it reduces household's livelihood options, which in turn act as push factors to out-migration of rural population (Mbonile, 2005; Majule et al., 2008).

In the case of Tanzania it is experienced in highland areas with humid climate and well established agricultural activities like Mounts Kilimanjaro and Rungwe due to high population pressure, in semi-arid and sub-humid areas in Central Tanzania due to rampant drought and persistent food insecurity. As a whole this decline of productive agricultural and grazing land has forced masses of young people in agrarian and pastoral societies to migrate to urban areas where most of them are employed in the informal sector or marginal jobs like sand mining and stone quarrying which are more predominant in peri-urban areas like those of Dar es Salaam City (Mbonile, 2002; Grote & Warner, 2009).

Study Area and Methodology of the Study

Location of the Study Area

The study villages are located in the North East of Kinondoni District, which has several inlets along the coast (See Map 1). It is drained by Rivers Mpiji and Nyakuletwa, and the area is a good habitat of mangrove trees. The coastal area is flat and has few hills running parallel to the coast such as Wazo Hills. The climate is influenced by the South East Monsoons and North East Monsoons, which enables the area to have rainfall throughout the year. The area has short rains in November-December, and long rains



Map 1: Location of the Study Villages

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from March-May, with the total rainfall sometimes amounting to more than 1500mm per annum. The vegetation consists of swampy mangroves. There are few woodlands and scrubs remaining after several years of deforestation by human activities (Mtingwa, 1996).

Sampling Methods

Since the study required the socio-economic and environmental profile of Boko, Bunju and Ununio villages, purposeful sampling was applied at ward and village levels. The number of migrant households randomly sampled in the three villages was 183 (Boko 75, Bunju 69, and Ununio 39). The total number of households in the village was obtained from the village office, and after that the sampling framework was developed to enumerate at least 10% of the households that were believed to be representative to the true population. Later, focal group discussions were conducted to enrich the data collected by using a structured questionnaire.

Population Mobility in the Study Villages

In most developing countries like Tanzania where the people are less educated, in-migration is measured by using the place of birth and residence of the people. In these study villages became clear that the majority of the people in both Boko and Bunju were born in other regions. Nonetheless, despite this general pattern of in-migration, the proportion of in-migrants in Ununio, which was established as a fishing village several centuries ago by Arabs, is relatively low (See Fig. 1).

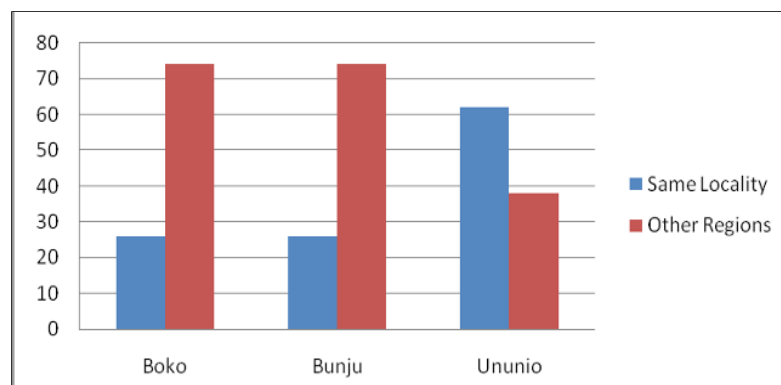
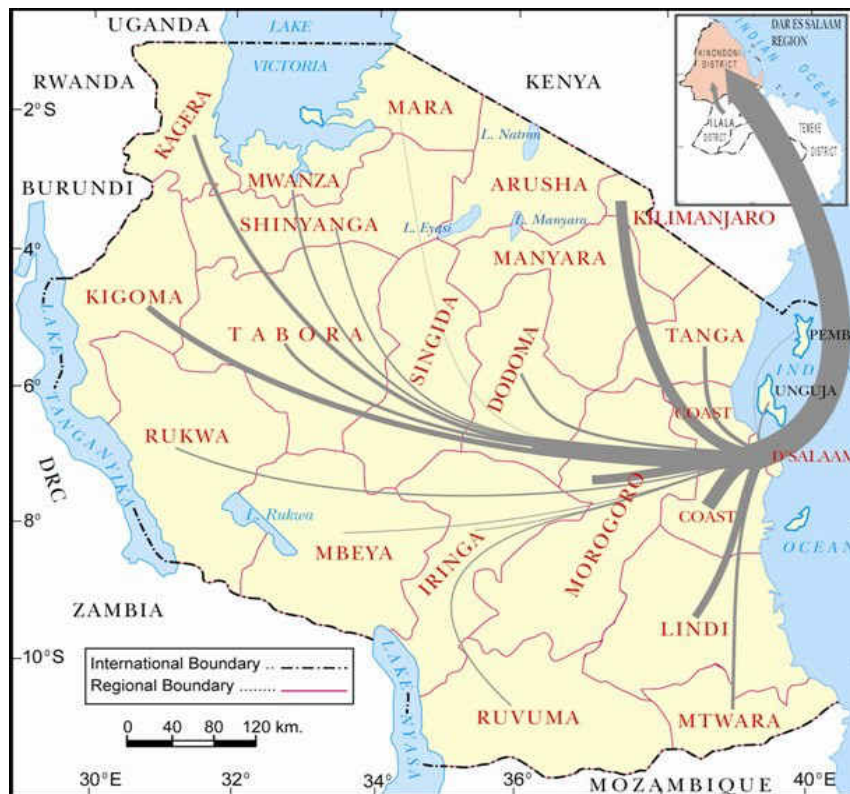


Figure 1: *Place of Birth and Residence of Study Population*

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A further analysis of in-migrants indicated that migrants originate from several regions upcountry. Generally, proximity plays a major role in the in-migration to these villages because big flows of migration originate from Morogoro and Coast regions that border Dar es Salaam City. They also originate from regions with high population pressure like Mwanza region, and regions with high levels of development such as Kilimanjaro and Kagera regions. Since migration is a survival strategy from hard economic conditions in rural areas, in-migrants also originate from least developed regions like Lindi and Kigoma, as well as from sub-humid and semi-arid regions like Dodoma and Singida (See Map 2).



Map 2: Migration Flows to Peri-urban areas of Dar es Salaam City

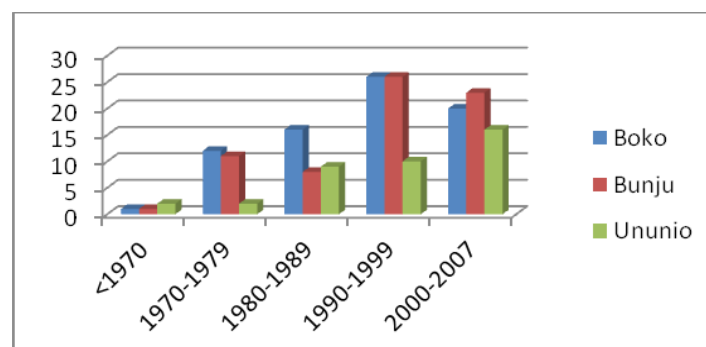
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Moreover, a study of factors that influenced out-migration from the place of origin indicated that a majority of migrants were uprooted from their places of origin mainly by hard economic/environmental factors prevailing in most rural areas in Tanzania (62%). The other factors that influenced out-migration was poor social services (20%), drought, especially among the pastoralists like the Maasai (9%), and family conflicts (9%) (Table 1).

Table 1: The Determinants of Migration of Study Population

Determinants of Migration	Boko	Bunju	Ununio	Total	Percentage
Poor social services	15	12	9	36	19.6
Hard economic conditions	51	43	20	114	62.3
Drought	5	6	5	16	8.7
Family conflicts	4	8	5	17	9.4
Total	75	69	39	183	100.0

When the migration processes were further examined by period of migration it indicated three salient features related to urban planning in developing countries. First, there were few in-migrants who migrated to these villages before 1970s because it was dominated by the indigenous population like the Zaramo. Secondly, more migrants came to these villages in the periods between 1990~1999 and 2000~2007 due to heavy urban renewal in the central business centres (CBDs) like Kariokoo and Samora Avenue in Dar es Salaam city (henceforth the City). In these centres the traditional houses have been replaced by skyscrapers with exorbitant rents, leading to poor people being displaced to squatters or peri-urban areas where they acquire plots of lands even in hazardous areas like wetlands in river valleys. These areas are more preferred because no building permits are required. Thirdly, peri-urban areas are preferred by rural-urban migrants in a migration process called counter-urbanization. Since counter-urbanization is practiced by rich urban households they displace large numbers of early settlers by buying their plots of land; leaving them to diffuse themselves into poor squatters in the City where they become house renters, or move to more peri-urban areas prospecting for new land that they can sell again when another turn comes. Moreover, it showed that there was more settlement of migrants in villages that have more space for settlement like Boko and Bunju compared to Ununio Village (See Fig. 2)



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Figure 2: Period of in-migration to the Study Villages

Migrants Means of Livelihood in Peri-urban Areas

Since migration is often a survival strategy for poor communities in rural areas, it plays an important part in the reduction of poverty and income disparities as it generates income for the in-migrants. The income generated from various survival activities in urban areas may raise the income substantially and at times several times (Ramamurthy, 2002).

Type of Occupation of Migrants

The term occupation refers to the type of work done by an individual in a given job irrespective of the branch of the economic activity (URT, 2003; Joseph, 2012). In terms of occupation most migrants in the three villages did not escape the poverty trap of most cities in developing countries as, due to the lack of employment in the formal sector, the majority were engaged in petty business, particularly in the informal sector (30%). This has led to the mushrooming of numerous trading centres located alongside roads, village settlements and markets. The commodities sold in these trading centres are largely produced in the villages such tomatoes, onions, bananas, egg plants, water melons, pumpkins, 'nyanya chungu', oranges, pineapples, coconuts, animal folder and seedlings of bananas, pineapples and oranges (See Plate 1). There are several hardware shops to serve the construction industry, and there are numerous other services such as restaurants, guest houses, hotels and bars. Fishing is predominant in coastal villages such as Ununio, and livestock keeping is more predominant in other villages because they have plenty of grass for feeding livestock, which are largely zero grazed. The marketing of building stones and gravel is common in all these villages.

As in rural areas, other migrants were engaged in farming, especially in the production of annual crops like maize and vegetables, activities that were less likely to alleviate their poverty. Another activity done at small scale was fishing (10%). This activity was also less likely to alleviate the poverty

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of migrants because it changed hands very quickly from fishermen to fish hawkers and then to fish consumers. In the end this long chain of trade made those in every stage to earn very little, and have little chance of breaking the vicious cycle of poverty of these migrants.

As in rural areas, both of these activities heavily rely on the natural resources in the vicinity and beyond the villages. Due to low education attainment in the place of origin, few migrants were employed as technicians or workers but mostly in low paying formal sectors such as security guards and barmaids in private companies and government institutions. As in all urban areas in Tanzania, about 5% were unemployed and so spent most of the time in jobless corners locally called as *vijiwe* (see Table 2 and Plates 1-5).

Table 2: Occupation of Migrants in the Study Villages

Occupation	Villages			Total	Percentage
	<i>Boko</i>	<i>Bunju</i>	<i>Ununi</i>		
Farmers	15	11	3	29	15.8
Technicians	10	2	2	14	7.7
Petty Business	21	30	3	54	29.5
Fishing	1	1	17	19	10.3
Workers	12	7	9	28	15.3
Others	15	10	3	28	15.3
Student	0	1	1	2	1.1
Unemployed	1	8	1	10	5.0
Total	75	69	39	183	100.0



Plate 1: Bagamoyo Road Vegetable Market at Bunju Village



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Plate 2: Informal Sector Concrete Marketing at Bunju Village



Plate 3: A Heap of Sand for Marketing Boko Village



Plate 4: Tourists Huts on the Beach in Ununio Village



Plate 5: Salt Panning in Ununio Village

Assets and Income of Households

Asset Ownership of Households

Property ownership is another indicator that shows to what extent households have managed to alleviate poverty or improve their livelihood after migration from rural areas (Mbonile, 2002; URT, 2006). The profile of asset ownership in the peri-urban study villages indicates that most households have at least a radio that connects them with the rest of the world in terms of news. They can also communicate with the rest of the world by using mobile phones, but in terms of transport there were only very few households with own bicycles and motor vehicles. As an indicator of poverty even in peri-urban areas, there were households which owned nothing (See Table 3).

Table 3: Asset Ownership of Households in the Study Villages

Village	Radio	Mobile phones	Bicycles	Motor Vehicles	None	Total
Boko	46	15	0	0	14	75

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Bunju	47	4	1	1	16	69
Ununio	31	2	1	0	5	39
Total	124	21	2	1	35	183
Percent	67.8	11.5	1.1	0.5	19.	100.
t					1	0

Household Income

Conventionally, the income of households can be measured by using per capita income that is calculated from Gross Domestic Product (GDP), which is the value of the total output produced in the country (Lipsey, 1989:459). On the other hand, GDP can be measured by using income earned by individuals or households, or using output produced by each activity in a household, or by taking the expenditure of each economic group in a household (Pass et al., 1988; Todaro, 1992). Due to poor records of expenditure and output of households, the per capita income of the study villages was estimated by using the income earned by various members of households from both major and supplementary activities per month. Although there were some indications that these migrant households had managed to slightly alleviate their poverty, still the majority were earning a per capita income that was below Tsh 100,000, which with the then level of inflation in the country, qualify them to be categorized as poor households. It is only 10% of the households which managed to earn an income above Tsh 100,000 per months, and most of these were in big business or executive posts in private and public services. Even worse, there were households that were living hand to mouth because they were earning literally nothing. The overall estimated per capita income was Tsh 96,000 for Boko Village, Tsh 49,400 for Bunju Village, and Tsh 111,235 for Ununio Village. This gives an average per capita income of Tsh 85,545 in the study villages, which is slightly higher than the per capita of typical rural villages in Tanzania (Table 4).

Table 4: Household Income by Village

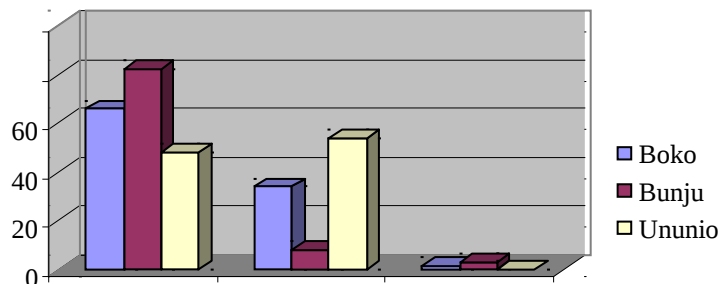
Village	Income in Tanzanian Shillings							Total
	None	1,000- 20,000	21,000- 40,000	41,000- 60,000	61,000- 80,000	81,000- 100,000	101,000 +	
Boko	7	9	14	22	3	5	15	75
Bunju	16	5	18	15	7	7	1	69
Ununio	2	1	6	8	11	6	5	39
Total	25	15	38	45	21	18	21	183
Percent	13.	8.2	20.8	24,6	11.5	9.8	11.5	100

Settlement and Shelter in the Peri-urban Study Villages
Acquisition of Plots of Land

Another area that required examination in detail in the study areas was the availability of land for settlement. Since these villages were in peri-urban areas they were very popular areas for settlement for both poor and high class people. The poor would like to settle in such areas because someone can acquire land without seeking permission from the City authorities as this could be obtained from village governments that charge only a very small fee. On the other hand, high class people would like to live in these areas with more open space where they can build luxurious houses. The whole process of buying plots of land in peri-urban areas is a result of poor urban planning that started in the late 1970s when several town residents settled in squatter areas with mixed poor and high class houses separated by thin loose roads due to poor and inadequate urban planning (Kironde, 1995; Kombe, 2005). The major impact of this type of acquiring plots of land for settlement has been a gradual displacement of the indigenous population like the Zaramo to more distant areas in neighbouring districts like Bagamoyo and Kibaha where they end up as squatters; or they are completely impoverished and end up as house renters in poor urban squatters of the City like Manzese and Keko. It was further observed that most of the plots near the shore have already been monopolized by rich people who were prospecting for land along the Dar es Salaam- Bagamoyo-Tanga corridor for building luxurious high class hotels and other related tourist activities.

Moreover, it was observed that in these villages there were empty building plots of land and the major method of acquiring these plots was by buying from the people who settled first in the area or from land prospectors who parcel their lands in acres and sell them at exorbitant prices depending on the position of the plot of land. Those very close to major roads with big business prospects, and those along the shores were sold at high prices. During the time of the study, the cost of a plot of land ranged between Tsh 500,000 for half an acre of land in the interior sites to about Tsh 10m for plots along the shore. The other methods of plot acquisition were through government allocations, invasions, and inheritance (see Fig. 3).

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Figure 3: Availability of Building Plots

Shelter Conditions in the Study Villages

The main objective of the National Human Settlements Development Policy of 2000 was to provide adequate and affordable shelter for all and sustainable human settlement. In this case shelter is seen in its entirety to include dwellings and necessities linked to them like sanitation, drainage facilities and other utility services such as water and electricity. Hence, for the last few decades the government of Tanzania and other settlement stakeholders have been concerned with the provision of housing to its people both in rural and urban areas. This concurs with the Istanbul Declaration and the Global Plan of Action on Shelter and Human Settlements, which are collectively called the Habitat Agenda (Kombe, 1994; URT, 2006:169; Penrose et al., 2010).

The majority of households in the study villages had houses roofed with corrugated iron sheets, and very few households had houses roofed by tiles and asbestos which are very expensive for ordinary households. Also, as an indication that abysmal poverty still exists even in urban areas, there were some households that still roofed their houses with grass. Almost the same situation is reflected in the walls of houses where the majority of households built their houses using concrete bricks, burnt bricks and stones. A small proportion built walls of their houses using trees and mud, locally known as *mbavu za mbwa* (dog's ribs). In terms of floors, most households had cement, tiles and wood floors. Due to poverty, there were also some houses with mud floors (see Table 5).

Table 5: Household Type of Building Materials by Village

Village	Type of Building Material				Total
Roof					
	<i>Corrugated</i>	<i>Tiles</i>	<i>Asbestos</i>	<i>Grass</i>	-

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Iron						
Boko	74	0	0	1	-	75
Bunju	69	0	0	0	-	69
Ununio	28	1	1	9	-	39
Total	171	1	1	10	-	183
Walls						
	Stones	Burnt Bricks	Concrete Bricks	Trees/Mud	Grass	
Boko	0	3	67	5	0	75
Bunju	1	5	55	8	0	69
Ununio	1	1	23	12	2	39
Total	2	9	145	25	2	183
Floor						
	Cement	Mud	Wood	Tiles	Sand	
Boko	69	4	0	2	0	75
Bunju	57	7	0	0	5	69
Ununio	27	8	1	3	0	39
Total	153	19	1	5	5	193

Source of Energy and Water in the Study Villages

Energy is a prerequisite for the proper functioning of nearly all sub-sectors of the economy as well as households. It is an essential service whose availability and quality can determine the success or development of a nation or households (URT, 1992:1). As in rural areas, which are the places where most migrants originate, the majority of households in the study area used firewood and charcoal for cooking. Only a few households used electricity and gas as a source of cooking energy because they are too expensive for ordinary households. As a whole the overdependence of firewood and charcoal as a source of energy clearly leads to excessive exploitation of forests and woodlands in neighbouring regions such as Pwani and Morogoro. Moreover, most households used electricity for lighting only as it is very expensive when used for cooking. The second source of energy for lighting is the kerosene lamp, which, when combined with wick lamp, becomes the major source of energy for lighting. The other source of energy for lighting was solar, which was used by few affluent people due to being very expensive especially in the initial installation costs. Other sources of energy for lighting were biogas and firewood, which were used by few households (see Table 6).

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Table 6: Source of Energy and Type of Water Supply in the Study Villages

Energy for Cooking						
	Electricity	Kerosene	Firewood	Charcoal	Gas	Total
Boko	6	20	22	27	0	75
Bunju	0	11	33	19	6	69
Ununi	1	7	18	13	0	39
Total	7	38	73	59	6	183
Energy for Lighting						
	Electricity	Kerosene	Candles	Wick	Solar	Others
		<i>lamps</i>		<i>lamps</i>		
Boko	30	15	4	17	6	3
Bunju	2	42	7	9	8	1
Ununi	23	12	1	2	0	1
Total	55	69	12	28	14	5
Water						
	H/H Pipe	N/Pipe	Vendors	H/H Well	PO	HH
						WO
						HH
Boko	4	52	13	0	6	0
Bunju	4	36	19	2	4	4
Ununi	10	24	0	1	4	0
Total	18	112	32	3	14	4

Note: H/H = Households; N/Pipe = Neighbour's Pipe; PO = Pipe Outside; WO = well outside

Water availability has been identified as one of the major factors for promoting health of the population and development for it is necessary for food production and other economic activities such as industries and commerce (Mbonile, 2005:1; Kjellen, 2006). The study indicated that most households were not connected to piped water, and so fetched water from neighbouring households. Also, some buy water from vendors. The few who have water connections sell the water to other households, although it is against the water by-laws of Dar es Salaam Water Supply and Sewerage Corporation (DAWASCO). During the time of the study a bucket of water ranged from Tsh 50 to 500 in normal cases, but it could increase to Tsh 1,000 during times of water crisis. Other households have drilled wells and

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reserve water in big tanks ready for selling to other people per bucket, or by connecting pipes their households (Table 6).

Furthermore, the study found out that households encountered several water supply problems such as severe scarcity and uneven distribution of water in the City. Other problems included the drying or vandalizing of water pipes, walking long distances to water sources, bursting of water pipes, exorbitant water prices, unsafe water, scarcity of wells, and congestion in water sites.

Health and Sanitation in the Study Villages

The main goal of the National Health Policy in Tanzania (URT, 1994) is to improve and sustain the health status of all the people by reducing disability, morbidity and mortality. This goal can be achieved by improving the nutritional status and raising the life expectancy of all the people in the country. However, despite the efforts to reform the health sector the study revealed that most health services face a lot of problems, including scarcity of medicine, lack of medical personnel, lack of water, lack of wards, lack of security, uncleanliness, and expensive services. The major infectious diseases suffered included malaria, diarrhoea, cholera, respiratory infections, worms, fungus, and sexually transmitted diseases (STDs) such as HIV and AIDS, syphilis and gonorrhoea. Also, there were degenerative diseases such as diabetes, cancer and cardiovascular diseases (see Plate 7).



Plate 7: A Dispensary and Clinic at Mtambani Village

The conditions of sanitation of any human settlement have a direct impact on the environment and on the health standards of the people (URT, 2006: 187). As in most traditional societies, the most common toilet facility in the

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study villages was pit latrine. Only a few households used flush toilets due to the lack of water in most households. It was also striking to see that even in urban areas some households have no toilets due to abysmal poverty, and so end up going in the bush/sea or use neighbours' toilets.

As observed by Ngware and Kironde (2000), there was a negative relationship between population increase and the collection of solid wastes in the study villages as is common with areas with rapid urbanization. This is because most urban authorities are overwhelmed by the generation of solid waste materials, which end up being disposed by methods that lead to further pollution of the towns or cities (Kalwani, 2001:19). Most households in the study villages threw solid wastes in households' pits, or burn them nearby the household. Others threw the waste anywhere near the households or along the sides of roads or footpaths. The Kinondoni Municipal Council has very few vehicles for solid waste collection, which encourage households to throw solid waste in any open space available. The haphazard throwing of solid waste leads to the spread of solid wastes in the streets and other open spaces like playgrounds and school compounds. Health-wise it is a tragedy when it ends up being rummaged by stray animals like cattle and goats (see Table 7).

Table 7: Type of Toilets and Solid Waste Disposal

Village	Types of Toilets					Total
	<i>Flush</i>	<i>Pit</i>	<i>Others</i>	<i>None</i>		
Boko	14	58	2	1		75
Bunju	9	60	0	0		69
Ununio	2	36	0	1		39
Total	25	154	2	2		183
Percent	13.6	84.2	1.1	1.1		100.0

	Types of Solid Waste Disposal					Total
	<i>Municipal Vehicles</i>	<i>H/H Pits</i>	<i>Burnt</i>	<i>Thrown anywhere</i>	<i>None</i>	
Boko	9	43	9	11	3	102
Bunju	4	53	28	8	0	93
Ununio	3	40	52	7	0	102
Total	20	151	92	30	4	297
Percent	6.7	50.8	31.0	10.1	1.3	100.0

!!!The drainage of study villages showed that there were several rivers which flow in these villages and these include Mpiji, Koo, Nakasambi, Nyakaletwa and Nyakasangwe. Nonetheless, as in all cities in developing

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countries squatter settlements have mushroomed in nearly all river valleys due to lack of building plots for the poor population. Besides settlement these rivers are used for sand mining which has been proven to be precarious to river banks and living organisms found in these natural drainage systems. As result due to heavy pollution of these rivers few households stated that they are using these rivers for fetching water for drinking and bathing. Nonetheless, others use this water for irrigation of vegetables which are marketed all over Dar es Salaam City which in turn risks the health of the people from heavy metals like lead. Moreover, the households stated the major sources of pollution of rivers as sand mining, households' and industrial wastes (See Table 8).

Table 8: Uses and Type of Pollution of Rivers

Village	Type of River Uses					Total
	Drinking Water	Bathing	Sand Mining	Others	None	
Boko	1	13	47	1	13	75
Bunju	5	10	3	6	45	69
Ununio	0	1	17	1	20	39
Total	6	24	67	8	78	297
Percent	3.3	13.1	36.6	4.4	42.6	100.0

	Type of River Pollution				Total
	H/H Wastes	Industrial Wastes	Mining wastes	None	
Boko	32	0	29	14	75
Bunju	13	0	13	43	69
Ununio	3	1	11	24	39
Total	48	1	53	81	183
Percent	26.2	0.5	29.0	44.3	100.0

Socio-economic Implications of In-migration in the Study Villages

All indicators of population dynamics show that the population of the three peri-urban villages of Dar es Salaam City will continue to grow for several decades to come largely due to in-migration and counter-urbanization. This rapid growth of population will increase the demand and pressure on the existing land resources in the villages.

The majority of the people in these villages were born in other regions of the country and most migrants originate from neighbouring regions. As a whole these migrants are pulled from nearly all regions in the country irrespective of the level of development of the region. The main factors which influenced their out-migration include economic/ environmental conditions, drought and family conflicts in the place of origin. They acquire the plots of land by

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buying from the local people that are displaced to poor squatter areas in the City or to more periphery areas. Most of the resettlement in these peri-urban villages occurred between 1990 and 2007 because of intensive urban renewal in the major business areas of the City and voluntary out-migration of rich households with a strong desire of having big plots of land for resettlement.

In terms of occupation most households were engaged in petty business which is more linked to the natural resources of the villages since they sell farm products like vegetables. The household income in the study villages was about Tsh 85,000 per month and so most households live at subsistence level. The level of poverty has forced several households to have supplementary occupations to supplement the meagre income earned from their major occupations. Since these poor households have no other means of earning income they resort to existing natural resources such as sand, stones and marine products such as fish.

However, despite the widespread health reforms in the country the sector still suffer from problems such as scarcity of medicine, lack of medical personnel and the services were still expensive for ordinary households. The villages continue to suffer from infectious diseases such as malaria and degenerative diseases such as diabetes. Also, most households have built modern houses which have a big demand for construction raw materials like sand and stones which are mined in the vicinity and have widespread environmental repercussions. This problem is further acerbated by the use of firewood and charcoal as a source of energy for cooking. Also, most households are not connected to piped water and so purchase water from vendors or neighbouring households.

In terms of sanitation most households use ordinary pit latrines which are well known for the pollution of underground water and major drainage systems such as rivers where most domestic liquid wastes are channelled. Meanwhile solid wastes are disposed in pits dug haphazardly near the households due to lack of garbage collection facilities in peri-urban areas of Dar es Salaam City. Unless this situation is improved the health of people of these villages will be in danger for they pollute the air and water supplies in these villages.

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