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Settlement reports from Cameroon (settlements in Douala page 2 and Bafoussam page 33), Ghana (settlements in Accra page 63 and Sekondi-Takoradi page 116), Tanzania (settlements in Dar es Salaam page 191 and Arusha page) and Rwanda (Kigali City and Muzanti Town page 273)

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Cameroon: Douala settlement reports

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General introduction

Douala is a characteristic city-port of Africa: a colonial town in the central area, surrounded by autochthonous villages and slums of first migrants, “new town” symbolising post-Independence attempts to plan the town, spontaneous town of the second generation and periurban areas. The population is estimated around 3,000,000 inhabitants, coming from all the country.

Each region has specific relationships with Douala, due to the importance of products exchanged to supply Douala. It is also visible through the number of inhabitants and their eco-socio-spatial footprints in the town, and how they play a role in addressing urban problems, beyond official actions.

Chosen neighbourhoods aim at highlighting these relationships in Douala urban process.

Table 1: Settlements studies in Douala

Neighbourhood	History	Location	Income-level	Rate of population growth
Bonendale	New spontaneous settlements area	Northern part of Bonaberi	Low income/middle	Growing rapidly
Deido	Old Native	Central part of the town	Middle income	Stable overall
New Bell	Old spontaneous settlement put in place during colonial period	Southern part of the Centre	Low income/middle	Stable overall
Cité Beige (Village Bloc 11)	New spontaneous settlements built in mangrove ecosystem	Southern part of the town	Low income	Growing rapidly
Nkolbong	New planned area	Eastern part of the town	Middle/high income	Growing slowly

Figure 1: Map showing locations of different sites in Douala



Figure 2: Mototaxis in New-Bell



Bonendale settlement report

Background

Bonendale is an urban sprawl neighborhood in Bonaberi, west of Douala. Bonaberi itself is a city of 250,626 inhabitants (2005) separated from the rest of Douala by the Wouri Bridge, the unique entrance to link Douala center. So, mobility and livelihoods of Bonaberi are closely linked to the traffic level on the bridge. We are administratively in Douala 4th council. Located in the northwest of Bonaberi, Bonendale village is served by a main road not asphalted. This road starts on the main roads of Bonaberi, place called "Rail" to the site of future social housing in Bonamatombe through the slaughterhouse of Douala. This is an important road for the northwest of Douala metropolitan area. This road will be asphalted to serve social housing in Bonamatombe as projected in the plans of Douala Planning Company.

Bonendale is a spontaneous neighborhood with settlement dates back to the early 2000s. Prior to that, Bonendale was a native village of Bonaberi with landscape dominated by scrub and mangrove. The development of Douala and especially the industrial zone of Bonaberi drew continuously migrants that have gradually occupied the village. Today, the indigenous population has become a minority. Bamileke (West Cameroon) and Anglophone (Southwest and Northwest Cameroon) are more numerous, followed of Northerners (North) and Beti (center).

The village Bonendale is divided into several sub-chiefdoms that have experienced various land access modes according to the ability of traditional owners to arrange for the installation of city dwellers. Thus, the occupation of Bonendale 1 was chaotic because the chief was more concerned with the rights of installation than the planning of urban dwellers settlement. By cons, to Bonendale 2, the chief simulated informal settlements before selling plots. Only routes were planned. Bonendale settlement result is not uniformly spontaneous. There are semi-planned areas. Plot size to Bonendale 2 was approximately 500m², while with anarchic sales in Bonendale 1, plot sizes dependent on the financial ability of the purchasers. Access to land was purchase from the chiefs and their descendants. Information on the sale are shared among the ethno-tribal networks. Today, most new arrivals buy from first migrants who obtained larger plots. The money to buy the land come from various sources, primarily contributions specifically dedicated: saving (tontine generally) or loans in multiple ethno-tribal meetings of migrants. Apart from chiefs and migrants dealers, the state has awarded nearly 100 ha in the suburban of Bonendale to built social housing (Bonamatombe). This induces a strong urban and land pressure on undeveloped land controlled by village communities. However, land problems began when the chief of Bonendale 1 has sold all his plots and started to sell back unbuilt plot or encroach on the territory of Bonendale 2.

Diboua: *When the Bamiléké arrive in a neighborhood and find plots, he calls his brothers and they colonize/develop the area.*

Mado: *within their associations, they often use their funds to buy the plots for members of their groups or they buy before dividing after.*

Housing and services

Initially, houses were built invariably with wood (carabotte) and permanent materials, but more and more old and new residents are trying now to build permanent houses. This is because the construction with temporary materials finally always costs more expensive. The renewal time is very short. So it's induces charges which the owner prefers to avoid, thus making the effort to build once. However, we must also understand that building with permanent materials in these spontaneous settlements also reflects the confidence that the occupants have on their ownership status. Clearly, they are almost certain that they will not be dislodged. The houses consist of 3 or 4 rooms with corners for pig or poultry. Almost all of these houses are individual and occupied by young owners' households. Houses roadside often have parts for stalls or small bars. Houses for rent are few. Rental prices and buying are also higher in semi-planned areas than lawless sales areas; 300,000 against 500,000 FCFA for 500m². A room is rented between 10,000 and 15,000FCFA.

Water supply

The inhabitants of Bonendale could browse through up to 3km to get drinking water near the main road tarred of Bonaberi. Water for other household tasks came from wells. Governments have at certain moments offered furnished well. However, the questionable quality of the water that was coming out has sparked the rejection by the people.. Some rich with drilling water offered free or against payment. Since 2013, the extension of the CDE water supply network reaches the secondary road and allows households subscribed to use and sell water to others despite frequent interruptions. Access to drinking water now depends on the proximity of the household with the CDE water supply network or from private drilling. Overall, 20 l of water costs 50 CFA.

Innocent Djeudeu, Vice President Development Committee, Petit Towo, 45 years old

We suffered a lot; we traveled for miles to get water. There was no electricity; no water, no road. We created the Development Committee where we tried to meet with administrators to express our grievances. One time we were placed here boreholes but they failed because the water coming out was not good, smelly. Today the CDE has made us water supply network. For health, the clinic is not far of Bonendale. We have water since 01 year.

[...] The AES Sonel (Electricity Company) network stops away where you see there. We paid 70,000 CFA per house to extend the network after buying cables, poles and paying the technicians. Lack of resources, we have not been able to buy the best cable and sometimes what we have "4 by 16" is sometimes burned and we repair.

Soppo Eugene, 52, a native of Bonendale. In this neighborhood, we have CDE water. We had water through elite of the locality, a mom who was a special adviser of the Prime Minister Achidi Achu. In this neighborhood, subcontractors of CDE care. For the household, they are people who have wells but more are washing clothes at some channel of Wouri River.

Figure 3: Water supply in Bonendale



Electricity supply

Electricity is on the main road of Bonendale since 1971. The first inhabitants of the secondary roads have used storm lamps at the beginning. Then they took the electricity informally from the main road. It was an uncomfortable and unstable archaic system (spider web). Since the mid-2000s, residents are organizing themselves to install the formal network in their neighborhoods. Indeed, they gather in to the development committees and contribute money to finance the installation of the formal network. At a place called “Petit Towo”, they contributed 70,000 per household and each inhabitant was required to contribute almost the same amount to join the network. Regarding the quality of the offer, residents deplore electricity shortage in the evening. However, the majority of households are still connected informally.

Mobile phone network

Bonendale is largely covered by the wireless telephone network (Orange, MTN and CAMTEL). It's the wired network that is lacking. Internet access is reduced because Internet shop “cybercafés” focuses only on the main tarred road of Bonaberi. Almost all households have at least one mobile phone which essentially function is to call family members, friends and customers when it comes to traders. Problems of phone charging are rare and arise after a long power cuts and especially when the owner had not charged his phone earlier. In

principle, to be providing, do never expected that phone is flat before to recharge the batteries, this precaution applies across Cameroon.

Toilet and sanitation

Households in Bonendale have mostly semi-modern individual toilets. Some modern toilets were planned long before the connection to the CDE water supply network, but have been not functional. The toilets on stilts are only in mangrove urbanization fronts.

The formal waste collection to Bonendale is limited to the main road. On secondary roads, households dump their waste mostly on the roadside and in the farms. Households in flood zones flow directly into the water. Wastewater is discharged into the farms, the road and in the water course. The flows are very difficult because of the low slopes that characterize the site. Wastewater that comes out of the houses are directed towards the road where they stagnate while waiting to be evacuated by rainwater or dried by the sun.

Flora, housewife, 25 years: The tide does not reach my home, because I had to backfill. When the tide is high, the children are closed inside. Initially, the tide was scary, but now I'm already used to it.

Accessibility of neighborhood

Households located around the main axis have easy access to their home, regardless of the means of transport. Secondary roads are usually built from money raised in the development committees. Newcomers are invited to pay their contribution to the maintenance of these roads. For example FCFA 25,000 per house built, which equal to the cost of a truck of mud needed for the maintenance of the road. This strategy of development and maintenance of secondary roads was encouraged by the Mayor of Douala 4, but was ceased because the newcomers have considered this operation as the scam or have denounced the mismanagement of the funds. The result is the abandonment of the maintenance of these roads that become impassable in some places, and thus isolates the inhabitants of this part of the neighborhood of others. Occasionally, sporadic human investments are held to unlock parts of road that became completely impassable to all users.

Madeleine Epoh woman, 42, employee of a company. We contributed a certain amount of money per household to rent such a truck. Those who bought a plot paid a certain amount of money before the trucks could access their site. For electricity, we equally contributed. Any new owner had to pay 25, 000 FCFA and trucks could move freely.

Diboua Catherine, woman, 54, Meal seller: At first it was 2000 FCFA per truck, at some time, looking at the high number of people who came, it was found that this amount was insignificant and it was increased to 25,000 FCFA equivalent to a truckload of mud to pay down on the road.

The motorbike is the transport means to link Bonendale from the main road of Bonabéri. On foot, it's about 35-45 min. There is no parking station for motorbike, which can lengthen the awaiting time up to 30min. The cost of transport to reach the main road of Bonaberi (tarred road), varies from 200 to 500 F depending on whether it rains or not, according to rush hours and the overload that commonly called "the bêche" or "bâchement." Walking is very challenging. In the dry season, pedestrians face with thick layers of dust

while in the rainy season the water ponds omnipresent force to take a change clothes because water often reaches at the knees.

The difficulties of mobility require households to restrict their movement by doing weekly shopping or by commissioning their neighbor for their purchases once a week for each.

Despite the lack of service, people flock to the neighborhood because land market is still abundant. This influx increases with multiple evictions made in Douala, notably at the level of Bonaberi bus station and industrial zone of MAGZI at Komba.

What is important to understand is solidarity chains that form around the deficit of services in these spontaneous settlements. The people living in those areas are almost socially connected and united among themselves. Phone numbers are exchanged to serve in case of possible emergencies especially at night. Those who have a motorcycle or a car can be called at any time to bring a sick or pregnant woman in a health center or to welcome a friend coming back from a trip out of city at latenight.

Livelihood and mobility

Bonendale is dominated by people of middle and low income. Poorer new entrants are forced to settle in flood-prone areas where the cost of plot is relatively cheaper. More accessible sites are occupied by both the poor and the rich formerly installed that have acquired plots from second purchasers. Before the 2000s, only indigenous peoples occupied Bonendale. It is when the chiefs of Bonendale 1 and 2 began to sell plots in 2000 that the area began to be densified. The inhabitants are mostly from inner city and peri-central of Douala like New Bell, New Deido, Bepanda, Bonassama. They struggle in small shops at Ndobo market, taxi and motorcycle-taxi, workers in companies along Bonaberi industrial zone. The main working sites are still the Central Market of Douala and Akwa business center. These activities have not changed over time, instead they have intensified. Secondary activities like raising pigs and chickens and the sewing at home are intense. The vast majority of inhabitants in low income area have a pig or poultry at home. It's also cultivated plots pending construction that entrust their absentee owners. This brand of human presence is a prevention strategy against double-sales that could make indigenous if the plots have been not cultivated.

The inhabitants mainly use the motorbike to reach the tarred main road where they can take a taxi or cargo to and for work. During rush hours, overload of 02 or 03 persons on the motorcycle is the rule. Despite the risks, it permits to users to reduce transportation costs because they pay half price. Those who walk on foot need 30 minutes to reach the main road. To avoid congestion on the Wouri Bridge, most workers who wish to overcome must leave home at 5am. Moreover, these workers do not take breakfast at home at noon, which lengthens household expenses in nutrition. These expenses are not usually correlated to wages and forced to carry out secondary activities or making bribery. The difficulties of access increase the cost of building materials in the area.

The rhythm of activity of the inhabitants of Bonendale and Bonaberi in general is closely linked to the level of congestion on the Wouri Bridge, single connection point, entrance and exit of Bonaberi. The crossing of the bridge sometimes lasts more than 2 hours by car and increased stress on workers residing Bonendale and shortened at the same time their work day by extending their travel time. For this purpose, they can spend up to 4 hours of time per day in back and forth transport.

The power cuts and brownouts damage the appliances and reduce the rate of activity of small fish shops. They end up selling rotten fish. The tailors complain malfunctions and breakdowns of their machines because of the electricity shortfall. The welding factories work intermittently. The lack of accessibility and the electricity shortage inhibit the building activities in the neighborhood.

Man, 26, trader: the neighborhood is fine because there is no noise, unlike the neighborhood as Bépanda. In addition, more young people here succeed in the domain of education. There is also security in the neighborhood. There is the possibility of agriculture.

But, only mosquitoes that bother us. In addition, electricity shortage are severe here, we often spend four days without electricity. Finally, the water here was a great problem, but it can be resolved over time.

Here almost all, we live like in the village.

Conclusion

According to men, Bonendale needs most road improvements, the creation of health centers and schools. For women, roads, electricity, sanitation are priority needs. The inhabitants think that their neighborhood would be in the future a large residential area when the rich will be installed, and with the support of the state, they will realize community projects.

Innocent Djeudeu, Vice President Development Committee, Petit Towo, 45: In 5 years, there will be more space, since with the evictions of the people in Nkomba. People are looking for plots to build, so it will be densified more and more.

Figure 4: Mobility and supply issues in Bonendale (role of motorbikes)



Deido settlement report

Background

Deido is one of the native villages of Douala after Akwa, Bonapriso, Bonabéri, etc. Located in the center of Douala on the left bank of Wouri River, Deido village was completely urbanized for at least a century. Deido is middle class neighborhood; its population and its landscape are relatively stable for several decades. The Deido village was amputated with 50 ha to form New Deido, the resettlement site for evicted after the burning of the Congo neighborhood in 1962 and evicted during the process of imposition of some streets in New-Bell neighborhood at the same period. Deido remains dominated by native, but dominance is in sharp decline because we found that all other ethnic groups in Cameroon are represented in increasing percentages. If the natives acquired their plots through inheritance, immigrants are more renters than owners. Deido as a whole is also famous for its "Red light district" so called "Rue de la joie" always milieu of shuffling and which combines every day celebrations, debauchery, prostitution, muggings days like nights.

Housing and services

Under land pressure coming from the city and under the obligation to protect minorities, Deido plots have become some homesteads prohibited for sell. At least, the renting is admitted.

Deido the neighborhood is no longer just a residential area. He acquired a commercial function that is developed along the boulevard of Reunification and on the road of Akwa north. Deido Roundabout, Fire Red Bessengué, Public School Deido, Banabassem Bridge and Bonatéki intersection are the clusters and nodes of transport that contribute to the mutation of Deido toward a commercial center. Due to the saturation of Akwa commercial center, the peri-central neighborhoods are forced to mutate in their function. This can be seen by the renovation/restructuring of habitat along major structural streets and the steadily increasing cost of rent. The buildings and villas were built extensively on the major roads. When it's possible, renting is very expensive, 80,000 FCFA for an apartment of 2 modern rooms. The result is the gradual elimination of the residential function for the poorest. Some native prefer to retreat to the suburbs to let rent their family compound.

Man, 47 years: I did not need to work because my parents keep me and I still live in family home. Before, I was masonry and motorbike driver. They did not pay me well and I decided to give up. Tenants must pay their money at the end of the month (30,000 FCFA for each of the five tenants) and that is enough to feed me.

As for future plans, I cannot leave my family to go elsewhere because if I leave the family plots could be sold and what I could say.

Male, 38 years: My source of income is the rental and I also do agriculture (7 hectares). My transportation means is the bike because it's fast.

Yves, student, 19 years: I see more poor dads who stay in this neighborhood to type comments when we go to school. There are many, it is a shame for them.

Figure 5: A street in the residential part of Deido



In inner Deido, behind the main streets, there is another landscape marked by total poverty: predominance of houses made by wood materials often ramshackle, overcrowded, sanitation problems aggravated by the low slope and advanced degradation of secondary streets.

A priori, we can say that access to water is satisfactory because it is pericentral neighborhood more or less planned. In Deido for rich, private boreholes and the use of bottled drinking water alleviate the deficit in the availability and quality of CDE water supply. In Deido for poor, almost every household has a well for either relay or complement with the CDE water supply and some boreholes water offer by Douala City Council. The CDE water supply is for drinking while the water from well is used for other household chores. Many household confess treat well water with chlorine or salt, however, it is inadequate and irregular treatment.

The sanitation issues (toilets, garbage and sewage) arise as among the poor. Hysacam collect garbage even in isolated areas out of the principal streets. However, the rate of passage is often not consistent. This causes the discharge of garbage in the gutters, which by training effects, clog drains and create flooding. So it's more household behavior that is the problem in the management of domestic waste in Deido: instead of waiting for the passage of Hysacam trucks to dump household garbage, some inhabitants prefer to pour it at the roadside or in the drains of drainage. In spontaneous settlement of Deido, promiscuity is permanent. The precarious toilets are observed and the number of people using the same toilet is up to 15 similarly. Equally there is an agglutination of the same number of people around a formal connection electricity network. The Kilo Watt of electricity sub-contract is up to 150 FCFA instead of 50 FCFA normally for low-income households. Complaints of voltage drop are as

abundant as elsewhere in Douala. Tenants and subtenants feel most aggrieved in access to water and electricity. They denounce the constant billing access to these services by landlords who sometimes prohibited making a legal connection to these networks. In reality, there is very few rental contract written and respected by both parties. The housing shortage is causing the lack of vigilance which characterizes some tenants signing leases.

Rene, student, 22 years [...] Hysacam spends three times a week. There are odor problems since the drains showers and kitchens of some houses are directly connected to drains, that are what causes the discomfort throughout the settlement. Our toilets are equipped with pot, so they are modern.

Yves, student, 19 years [...] here inhabitants' pour their urine and sewage in gutters flowing to homes. This creates unbearable odors.

Rene, student, 22 years: We have direct connection electricity past a year. Before, we take electricity from a neighbor. Monthly bills were between 15,000 and 19,000 CFA. Now we pay between 5,000 and 11,000 when it's really expensive. Power cuts are less frequent, just that recently we feel the brownout.

The services to be improved depend on the social class and place of residence in the neighborhood. In the main street, the upper class wants to improve road safety in terms of materialization and regulation of traffic to minimize road accidents. They demand more public lighting and free standpipes. In spontaneous settlement predominantly poor, it's desired densification of the CDE water supply network in homes and free public standpipes. They also want permanence maintenance of roads and regular garbagecollection.

There is very little residential mobility in Deido. It's a neighborhood where the population is growing far less. It should attract many city dwellers, but the supply of housing is almost limited. Houses for rent are rare and tenants have to pay for months or even years in advance to avoid frequent revisions of the contracts. This is more poignant in commercial buildings. As a result, residential mobility are reduced compared to suburban neighborhoods. For cons, the mobilities for relaxation and for labor are increasing. One example comes from Uptown to relax at any time at the Deido "feast Street".

Michael, student, 19 years: There is a lot of movement here, with snacks, bars and beautiful girls [...] the majority of households use gas. During important events, we go to buy firewood at COAF Bakery for 100F a package of 4 wood and coal to 300F a plastic.

Livelihood and mobility

As we have said, Deido is upper-class, middle and poor settlement. This is reflected in the landscape that is marked by a segregation showing by the presence of the rich on the main streets and deployment of the poor behind the secondary streets.

The mobility at Deido takes several forms: residential mobility is rather limited compared to other neighborhoods. It is limited to native sons who free themselves from family control to settle in outlying residential neighborhoods. Mobility of labor implies Deido residents working in companies at Akwa or in administrations at Bonandjo. But there is a very high proportion of non-mobile: women and men who hold restaurants and bars for example in

the “Red light district”, merchants and retailers at Deido and New-Deido markets. The housewives, seamstresses, hairdressers are also numerous. Indeed, Deido from its position of centrality and accessibility acquire a commercial function that increase in the city of Douala. In fact, the neighborhood seems denser during day and evening due to relaxation points.

The cultural and relaxation mobility start precisely with the young inhabitant who pay visit to he's family in or out of Deido. Generally, it is Bonabéri or Akwa North. It is a common activity on the weekends in Deido. The young inhabitant also goes to the “ELF Base” or the “Naval Base” to relax on weekends.

The impact of international mobility is also perceptible at Deido. Almost every family has a son in Europe or North America. This diaspora is constantly in holiday at Deido to manage their business thriving in the city. With their trappings of wealth (cars, watches, necklaces, costume shoes, luxury) sometimes associated with extravagance, this diaspora grow the dream from abroad to the youth of Deido. It's find that some young have plans to go like X or Y in the neighborhood as only future project. We observe the same situation among young of New-Bell.

Due to insecurity and riots that pitted young of Deido to motorcycle taxi drivers after a deadly assault, transport by motorcycle was banned since 2012 in Deido. The neighborhood has not particularly suffered from this ban because easily accessible. By cons, customer of motorcycle taxis was forced to adapt to taxis supporting congestion at peak times. The nightlife on the “feast street” had taken a hit, but bar owners and clubs have adapted.

René, student, 22 years: the motorbike drops us at the public school and we continuous on foot. This does not pose serious problems, since we are already accustomed. When the motorbikes taxi drivers came here there was a lot of aggression. But since 02 years that the ban there, we don't talk more.

Samuel: the only drawback I see is that people who arrive with large bags are deposited at the crossroads and it is hard to bring them back home.

René, student, 22 years: [...] The type of clothing that I wear guided the means of transport that I borrow. When I'm dressed as a responsible, I take the taxi. But when I'm in jeans, I take the motorbike.

Conclusion

Deido is a native neighborhood mostly planned. However, the services owned by the neighborhood are old and requires renewal. It's how we must understand the demand for improved access to water service, sewage service, electricity and roads service. Residents are right to say that Deido is saturated, aged and deserves renovated and redesigned for the development of Douala.

Ebenezer, student, master Sociology: *I'm just rehearsing since 2005; it allowed me to pay my school for 4 years. It gives me between 50,000 and 120,000 per month. Some cousins and uncles well situated help us financially. I often perform operations of sending and receiving money for 4-5 years. We often receive money from our uncle in Paris.*

I like it here because I have no means to live in neighborhoods like Akwa, Bonapriso. In 05 years, I plan to move to another city to try elsewhere.

Woman, 40, Yabassi, Shop Partner: *I would like to live at Yassa or Ngodi Bakokos because there's fresh air and it's good to live. Since the separation with my husband, I have alone work only for my children as so far.*

Male 22 years Dibombari, living with grandmother, tenant: *We receive money transfers from Lyon in France. I always love to live Deido by where I grew up here and services are easily accessible. Within a year, we would have finished with our house and will finally be in our ownhome.*

Figure 6: Densification in Deido



New-Bell settlement report

Background

New Bell is the first spontaneous neighborhood of Douala. In 1913, after evicted of Bell from Joss plateau (Bonandjo), the Germans began to resettle them in the site of New-Bell. The protests of Bell led to the hanging of King Bell in 1914. However, the German left Cameroon 02 years later and the negotiations with the French led Bell to settle rather in Bali.

New-Bell has served as relocating site for immigrants who became more and more numerous in Douala. They settled on the basis of their ethnic origins, so there is denominations as "New-Bell Bamiléké", "New Bell Bassa", "New Bell Ewondos", "New Bell Hausa", etc. New Bell was then extended following successive immigration trends and the management efforts to stem the flow of migrants. It's there for exist so many New-Bell according to the degree of spontaneity and especially following the ethnicity of the inhabitants. Our investigations covered the area of New-Bell Bamiléké. We see that although the Bamileke are the most numerous, they are not the only existing ethnic group in that settlement. Similarly, the proportion of Bamiléké is also important in other New-Bell ethnical settlement. It is to say that these denominations today reflect only the ethnicity of the first migrants that have occupied the site during colonization.

Typical spontaneous settlement of tropical cities, New-Bell (Bamileke) is distinguished by its "muffled" "densified", "crowded" character blurring day and night with bars and "Red light districts". New Bell hold poor class populations. However there has been observed a recent emergence of a small middle class, which is the result of process of a slow movement of social renewal of population. Indeed, young inhabitants who has economically successful come back to retrofit their homesteads by building modern and height. It also identifies a significant proportion of Nigerian and Malian emigrant traders since the Biafran war (1967-1970). Some have become owners. New-Bell is also infamous for the fact that hosting the largest prison in Cameroonian cities.

The landscape of New-Bell has completely changed, from "Bell farm's" to colonial spontaneous neighborhood marked by crowding of wood houses (carabottes) to management attempts after independence. The land status is complex in New Bell. The first settlers have cleared with or without permission from Bell and with the implicit approval of the colonial administration. Other migrants have paid installation rights to Bell. Today, access to land in New Bell is by inheritance and by purchase.

Housing and services

New Bell offers a variety of housing ranging from the exceptionally precarious to buildings exceeding 4 storeys. The people of New-Bell are almost equal proportion of tenants and owners, either by purchase or by inheritance. It takes 20,000 FCFA to rent a room in wood materials and 30,000 for a modern room. Entire families live in one room. The effects of the center raise the rents of all point where any shelter can be posted (kitchen, parking,

courtyard, walkways, etc.) so that those areas are rented at times regardless of the house rent. However, the pressure is too high that some landlords sort those can stay with them. In fact, according to their perception of certain ethnics groups that pay their rent more easily than others.

Ekwalla young student, 23 years: there are even problems of tribalism observed among some landlords who prefer to give their houses for rent to people from certain defined areas. The landlord almost always asks "what is your origin?" When you reply, they reply that they do not want the people of this tribe. At one point, one is forced to use some other people identity to get in to thehouse.

Access to services

New Bell neighborhood has a reputation for all the ills of Douala. No service is satisfactory. By resilience effect, people can live with the risks of their environment so as they don't seeing no more problems.

The vast majority of people are not connected to the CDE water supply and uses well water. It claims that they treat well water before use, but this does not happen continuously.

Sanitation is the biggest problem in New-Bell. The flat site promotes the stagnation of water, itself compounded by overcrowding, crowded and living conditions that are contrary to good environmental management behaviors. For example, some households do not have toilets. The excreta are collected in pots and dumped in the gutter in the early morning. In the absence of a system of liquid waste disposal, gutters collect all the sewage they cannot evacuate because of the constant drain blockages. Consequences, breeding of mosquitoes more and more resistant to conventional medicines are formed across New-Bell. This neighborhood is thus the center of water-borne diseases and the permanent risk of cholera in Douala. The residents-owners are particularly hostile to any development initiatives that can require intruding of a cm of their plots. Consequently, to improve sanitation or road maintenance is only realized when almost permanent blockages are found. A project of the World Bank to build public latrines has also dropped due to the lack of place. No block leader could find 10m² needed for such a project.

The illegal and fraudulent connections to the electricity network often cause transformer failures. All services in New Bell need to be renovated. For young, sanitation and roads maintenance are the first actions. They also want a game center. For adults, sanitation and security are essential.

Alassan, 35 years: *It arrived moments where CDE water supply was in red color and was very salty; so we couldn't drink more. Also at times, they cut water unexpectedly.*

Alassan 35 years: *when it rains here in Bam-Ewondos, sometimes we have flood at the level of our feet. This also hinders the movement of people who want to go to job. These backwaters stink too much because when it raining, some people are draining their toilets in the gutters.*

Bilegue, 33years, electrician: *it is irresponsible for some landlord who not really care to know in what condition is the house in which you live; they care only for rent, not bothering to remake the crumbling toilet. Toilets are generally semi-modern.*

Ekwalla young student, 23 years: *There is no specific electricity problem here because when there is shortage, is that the cut off is general problems. Previously, only one transformer station has supplied all New-Bell. At one point it was divided into 04 blocks after finding that some areas used more electricity than others. My block (02) has no problems.*

Suzann, 19, student: *we also note that the houses are stuck each together, it is through the lounge of some one that you can access some houses. As such, if there is a fire, it may burn several houses at the same time.*

New Bell is adjacent to the Central and Kololoun markets'. The unemployment rate is one of the highest in the city, along with the number of older people. Some live only with the rent of the houses they built since their arrival in the neighborhood. In all cases, the social groups are diverse as the fabric of jobs and income. There are primarily retailers mostly informal, carpentry, hardware, garages cars and motorcycles, the motorcycle taxi, hawkers, sewing, hairdressing, etc. The young of New-Bell are "self-made man." When the economic venture successful and he becomes the "elite" of the family, he renovates the family house and implants himself in the planned suburb. At New-Bell, you will be told the "success story" like the one of the footballer Samuel Eto'o Fils and many other "adventurers" that have successful throughout Europe. The famous "Mbenguistes" (name of those having migrated to Europe) built the dream of Europe by exalting their "success" with extravagance at every sojourn in the country.

Alongside these relative successes, do not forget the many failed adventures ending with a shipwreck off in the Mediterranean Sea or for the luckiest the incarceration in Europe or in the famous New-Bell Prison. In New-Bell rightly, parents are ready to combine their savings for long time or to sell their family compound to send their son in Europe via legal or illegal immigration networks.

We do not forget the substantial proportion of young girls and mothers who scour the internet shops all day looking for the "whites Europeans" for marriage. We understand the densification of internet shops in the squares and main streets of New-Bell. Number of young people unemployed or having temporary employment almost always have a dream to leave for Europe, even if the means to achieve it arrive a day or not. They are based on the "success stories" as we just mentioned, and sometimes under the pressure from families.

Bilegue 33years, electrician: *Here in New Bell, there are only 02 activities that can give money: the bars and the renting. That is why the price of rents increasing. As for those who go to the market, we do not know how they do.*

The young natives of New-Bell often leave the neighborhood to the suburbs once they find enough paying job and sometimes without decent job. The mobility in New-Bell is mainly provided by the motorcycle taxis although taxis can move in the secondary streets. Indeed, the inhabitants, men and women, children and old, prefer motorcycles taxi for its efficiency despite the accidents and near daily attacks.

The character "difficult" New-Bell, whether real or merely perceived, ensures that the neighborhood is served by taxis and that specific motorcycle taxis, for example those who live or have lived in the neighborhood. So, it becomes difficult at certain times of the day or night to be able to enter or leave New-Bell for fear of assault or violence variety.

***Alassan 35:** I've heard people say, "find me a house in Douala except in New Bell." It means everything. The reason is simple: New-Bell has a summary of all that is not honorable in Douala.*

***Matchoua, 35:** When I was still going through the neighborhood to go to Bassa, I remember that almost every day there was a bandit killed in road. Now we see that the level of crime has decreased.*

The residential attractiveness of New Bell is stable or progressive in both directions. So, many people leave New-Bell because of the lack of services, both New-Bell draws from its position of centrality. Indeed, New-Bell has remained one of the first entries of new immigrants in search of reference or guide marks in the city of Douala. Adapting to life in Douala for an emigrant usually start through the first stage of life in New-Bell or Bépanda. The young single migrant is usually engaged in a city learning process or adaptation to the difficult conditions of African metropolises. He's next important step of residential mobility is in the suburbs where the young migrant is becomingowner.

Conclusion

Insecurity and sanitation are major issues of concern to the people of New-Bell. However, we note that they are not willing to make the necessary efforts to resolve these problems. For example, solving the sanitation issue requires the destruction of houses, evictions and therefore no inhabitant wants to hear about it.

Many people see no future for their neighborhood and more a better future. They do not believe in the ability of the government to find durable solutions to their problems. Many young people want to leave New-Bell and other adults do not want to leave, even they find some problems hopeless. So it seems that informal neighborhood like New-Bell emits some specific sociabilities which attach residents.

Social groups, ethnic groups, land and mobility in New Bell: perception of Bamiléké in city

Paul, 59 years: it is poor because you will see entire families living in one room. Many rooms and kitchen in this neighborhood have been transformed for rent, to support some spending.

Augustine 63 years: it is for most resourceful, the benskiners. Some are of the middle class and upper-class.

Gabriel Njumo 68 years: there are the Bamileke and Hausa ethnic groups

Marceline Ngoh, 45 years: there are a lot of foreigners who invade us here in the neighborhood. This is among other Nigerians, Malians, Nigerians and Central Africa Republic.

Augustine 63 years: the dominant ethnic group here is the Bamileke. They are the majority because they are almost the invaders. When they arrive somewhere, whatever the quality of the environment, they settle and never leave again, in contrary of Ewondos who, after New-Bell are now leaving again Nyalla to go where I do not know.

Jean Pierre 52 years: I think they (Bamileke) are the majority because they sometimes leave the village as adventurer to find better condition in town.

Paul 59 years: they (Bamileke) save and buy the plot before getting married.

Augustine 63 years: they quickly understood what the plot is and in their tribal association they clubbed together to buy plots for each progressively.

Jean Pierre 52 years: this leads me to wonder what would have happened if the entry of Cameroon was on their territory.

Paul 59 years: Northerners are currently trying to rival this position to Bamiléké.

Jean Pierre 52 years: Some Bamileke are to leave the inner city to invest more in the periphery where they can grow crops and poultry.

Augustine 63 years: they are people who like to build; they are not like Bamoum who only like to build in their villages. If you go to any town in Cameroon they will be among the majority. They are settling in Bonapriso.

Jean Pierre 59 years: Those who emerge leave New Bell. It becomes a stopover for hustlers. In addition they are established on the estate that has long belonged to the state, thus uncertain status.

Augustine 63 years: People who emerge leave here because they are looking where to build. They are now going to PK 21. Then it is not necessarily because the neighborhood is depraved. It is just the desire to live on proper built home.

Augustine 63: There was a project of the World Bank to build toilets free here, but people have refused to give plots.

Figure 7: Drain in New Bell



Cité-Beige settlement report

Background

City-Beige belongs to a larger urban space called "Village". This is an expansion of the Nylon zone at the eastern entrance of Douala. The urban planning program at the east of Douala funded by the World Bank in the 1980s resulted in the development of Ndopassi zone or "Village" with the fronts planned, semi-planned and spontaneous. The project aim to avoid the occupation of the edges of the airport as it was the case in New Bell. Unfortunately, it ends up with the same scenario at late 1990s-early 2000s. With the economic crisis and democratic protest movements, the state in weakened position could not contain the "assault" of city dwellers on the space yet reserved, protected and *not ideaficandi*. The native traditional authorities have observed that the state could wrest their land and they have began to sell them without measure both literally and figuratively. It's in this context that "City Beige" is constituted as an outgrowth of the group called "Village" or "Ndogpassi."

Figure 8: Houses on mangrove in Cité Beige



Initially, we are in an environment of mangrove forest under the tide. From the place called "Ball-Entry" (Entrée-Bille) occupants scurrying to "send water away" as they like to say, that means, to build on stilts or on embankments by put water out of harm's. Initially the buildings are temporary materials (carabottes), but when the occupants ensure that the threat of eviction is weakened, they proceed to the construction with permanent materials.

The chiefs of the natives have began to sale plots firstly by renting for agriculture, then by rights transfer of custody, which is confused with the sale of land. Since this is an illegal

occupation covered by traditional authorities of indigenous village (Bassa), no land title is possible on the site. Although some people claim to have land titles, it remains to be verified and validate. Today, land transactions are made through resale or through inheritance.

Kenne Ibrahim, former head of migrants community, 44 years old, and 20 years of life in the City-Beige: *The neighborhood was formed in 1994 at the initiative of the native community of Bonaloka and especially by one of the elder sub-chief Mr. Njoh Esombe Samuel. He called this neighborhood Ngoh Ngongah Mbokon. When people arrived they gave the name of "City of Angels". Some indigenous resource persons arrived with an administrative act named "Bonapossi Mboh kon." The ADC (the authorities controlling Douala international airport) later contest the occupation. Another native elite came with the name "Block 8 Newtown airport." All this explains quite contentious context in which we live with the natives, administrative and traditional authorities. Towards the end it was found that imigrants could not give the name to the place; then we come to an agreement after a memorandum of understanding on the name "Nsong Ngonga Mboh Kon".*

The first settlers gave 20,000 FCFA per year for farming. Gradually, as we cultivated, the land became more viable; Bassa have begun to tell the tenant to pay 400m² at 200,000 FCFA. If the tenant does not want to pay he was forced to release. Those interested paid and occupied, those who do not want released, and they sold.

Martine, housewife, 13 years living in the neighborhood: *it was still the forest again. There was only this house and the forest. Access was painful because there were no bikes, we would walk, so today this road as badly maintained as it is, is like tar for us. I bought my plot in 1998. In 1999, I began to grown. In 2000, I came and I left. After spending 04 years in Yaounde, I came back here found that my daughter was already installed as a resident.*

When you are in "Ball-Entry" (Entrée-Bille), you take the bike to block 11, that is to say, the last stop. We made almost 13 years without light, using wells. The first drilling is made here in 2000 and the closest was done here in 2007 into my neighbor house. We drank water from the well.

Landrine young housewife, 28 years: *Here is a new quiet neighborhood where we live as in the village with the fowls crowing, trees, short snakes, it's different from the city. We have lived here for a long time without electricity.*

Housing and services

The fact that the houses have move from temporary materials (carabottes predominantly) to the permanent materials shows that the neighborhood has changed in his condition. The tenure has even evolved to include tenants, evidence that the neighborhood attracts not only poor city dwellers in search of property, but also those looking for houses only. However, renting in such neighborhoods as well as being accessible to the poor, is a means of seeking to buy land for the younghouseholds.

Nestor, 34 years: *you know Bamileke man loves plots and even the idea that one day it can be destroy does not affect he's ambitions. There is not story building here because we are on the airport side. Initially, we were afraid of eviction, but today, we are approximately sure that they can't evicted us now.*

As might be expected, a neighborhood occupied in this context of illegality and hiding could not have urban services, at least mediocre at this stage of development. As government only intervenes retrospectively when the colonization of space is completed, here, even after occupying all the space, urban services are awaited.

While the area has been occupied since the late 1990s, it's in 2013 that electricity reached the last sprawl areas. This service is also the result of an assessment of the population since more than five years. However, this electricity is also a poor quality service, because energy power supplied to households is only an illumination power and thus unable to operate heavy machines at any time. The corn mills and the sewing machines accuse shortcomings of energy at night, when all households use electricity. We understand why refrigerators and freezers have difficulties to functioning and condemn women to do only the Ndopassi market almost at 5km. It also happens to include fraudulent connections that abound in the neighborhood and the anger of the inhabitants vis-à-vis the company supplying electricity. Students are forced to revise their lessons immediately after returned in the afternoon and without resting. They have to sleep early at night or stroll in places of games and relaxing at "Ball-Entry" (Entrée-Bille) before returning home late in the evening. Some parents also seem to be subject to the same lifestyle of Nocturnal. But sometimes it's just an excuse to forget for a moment the "concerns" including poverty and neighborhood problems.

Kenne Ibrahim, 44 years old: in 1994, we use kerosene lamps and some use the box with strands above. In 1998-1999 we brought electricity from more than 1.3 kilometers. This cost us about 680, 000 CFA. When the neighborhood becomes denser, we went to AES Sonel for multiple file applications. It's in June 2013 that the connections happen in an extremely busy environment. Today, almost 95% of houses are connected to AES-Sonel network despite electricity shortage.

Thierry, 27, student: in December 2013, they cut electricity on the 14th and it returned on January 2th.

Jean Pierre, 23 years: after some technicians went house to house and with 1,000 FCFA, they plugged directly to the pillar.

Zeina, 33, a computer scientist: children learn during the day directly after school without resting

Thierry, 27 years old student: I think if the houses were not built with permanent material, they would burn each day, so there are short circuits, overvoltages and lighting effects.

Cité-Beige is one of the few neighborhoods in Douala where telephone access is still a challenge. And the proximity to the airport prohibits the installation of any telephone pole. The required solutions need investments that priced higher than expected profitability for operators. Result, residents are forced to found the specific positions as on trees or mounds to use their phones. If the phone is difficult to use for its primary function, no need to think for Internet, they must go to "Ball-Entry" (Entrée-Bille) to find it.

Kenne Ibrahim, 44 years old: the telephone network is a real catastrophe here; it looks like we're forgotten. Still recently, a new operator came to pick a location to install an antenna in the neighborhood. We hope that this will solve our problem. Even with regard to the internet, we have internet key but the flow is so low that nothing works.

Zeina: The telephone network is bad

Nestor: I have my ladder back there to go up on a mango tree and have the network.

Landrine: here when calling you walk a lot and lifting the phone

Thierry: there is a few months MTN and Orange technicians come here to seek plots for antennas

Thierry: It really prevents work; since the small tinkering I could win entrusted to people from elsewhere because I'm not always available. These gentlemen who came up with the lady could only call me to resolve their problem, but I was not available because of phone network.

Water supply is one of the great problems of the population of the Cité-Beige. Everywhere it's says that they were forced to consume well water for at least 10 years since the neighborhood was created. Well water was treated with salt and the well itself flushed at least 2-3 times a year for optimal maintenance. It's only made by a select few treatments. The majority had only sporadic treatment. For 2010 the CDE water supply and especially 03 private drillings paying ensure access to water for the population. However, old habits have not gone as far as the purchase of permanent water to drink is expensive. It should be noted that water supply, as electricity does not cover the entire neighborhood. The quality of this water is also a cause for discouragement for the poor who do not hesitate to question the difference between well water and this of CDE and express their preference for well water.

Nadège: a can of 20litres water costs 50 F

Thierry: You agree with me that bleach causes excessive skin diseases. In addition to being asked to drain the well from 02 to 03 times a year. An emptying costs 10,000 FCFA. People do not have money that is why we skip steps. I do not know what CDE waiting to connect us for supply network. Young people in this neighborhood are willing to go digging for the pipeline

Kenne: to the 2000s, we had this problem of cholera epidemics. Since 2008, 2010 to 2014, we have drill and do not heard of cholera here, there still had, but at the side of Bobongo recently.

Sanitation and toilets

Sanitation is one of the major problems in Cité-Beige. The water is stagnant and it collect all household waste produced on site and those washed into the upper stream. The excreta for some households are directly discharged into the water. During the flow of the tide, all the waste are back to the veranda where they are abandoned at ebb. Promiscuity helping, these wastes are in one way or another back into contact with the inhabitants. For example, a barn is always close, children play near or waste collectors are always there to search for materials to recycle for sale.

Formerly, the airport estate received the garbage, but since the holes created on the fence were clogged, high tide receives waste that it returns at low tide. Aware of the damage on the environment, the Douala City Council has permitted to HYSACAM trucks to collected waste 01 times a week, but only a few people drain their waste at the deposit point created. Others claim that the distance is far and that the company for garbage collection passes at odd hours. It's understood that it's easier to pay garbage in to the water than to drag it on less 800m from a deposit place.

Marcian: previously, we passed through the passages to go throw garbage in airport estate. When ASECNA blocked the crossings, we deposit them in the tidal zone; but from two to three times Hysacam pass to collect.

Kenne: Initially we took the initiative to built toilets by pouring a slab over a hole, but since the soil is sandy, the toilet ran and collapsed regularly. It's from this that we have changed and now pits where one goes cinder blocks from the bottom before pouring over your dig; which seems to succeed. Because so far, even the blowing off did not start here because the need is not done yet.

Roads, transport and accessibility

Accessibility is also a major problem in the cité-Beige. It's accessed through a single entry: "Ball-Entry" (Entrée-Bille)." But this road is constantly shabby either in the rainy season or dry season. Therefore, the neighborhood is sometimes blocked both for entrance and the exit. Only motorcycles and special vehicles enable in Cité-Beige. The fare is 200 FCFA * 2 or 400 FCFA * 1, because the overload of a person on the motorbike is the rule and not overload is an exception. When failing to borrow motorbikes, the residents who are committed to walking must have two clothes when he leaves home: "the dress of the neighborhood" used to wading from inner neighborhood to tar, and "the dress of the City "to reaches the workplace without leaving traces of where coming from. The majority of people have a motorbike, whether for commercial purposes or personal purpose.

As can be seen, all services are to be improved in the Cité-Beige. This is both quantitative and qualitative improvement in the supply of urban services. Besides, not all the services are available, for example, a market and a health center. Native customary authorities to justify the informal settlements to the administrative authorities provided the sites for these services. But, once the plots for sale are exhausted, new residents have occupied these spaces insidiously with the complicity of the native dealers.

Livelihood and mobility

The inhabitants of Cité-Beige are essentially the poor who resided in the peri-central neighborhood of Douala and are in search of access to land and property. These are essentially the motorbike taxi drivers (benskiners), taxi drivers, lifeguards and small traders at Nkololoun, central and Ndogpassi markets'. Many residents work in the neighborhood. These are boatmen-sand diggers and wood finders in the mangrove and increasingly professional pigs' breeders. Production and marketing of wood or sand are major activities in the Cité-Beige, despite restrictions imposed by the administration.

The electricity shortage requires to retailers to trim their activities at the level of small shops that cannot keep fresh. The state of the road and sanitation deficit imposes a temporary relocation for pregnant women forward. Indeed, at 01 months of childbirth, pregnant women must leave the neighborhood to mitigate risks related to the environment and accessibility of the Cité-Beige. So they stay with their person residing in more accessible areas. The situation is clearly worrying especially since we recorded abortions and deaths because of road conditions and the environment. Indeed, the shakings of the motorbike are likely to trigger adverse contractions in pregnant women. Another strategy for women to reduce travel and travel costs is to assign purchases to its neighbor in a sort of chain rotary solidarity: "Today my market time for the group, tomorrow yours".

Moussa: the bike is the only means that is present, even if we suffer illness or to deliver we have to take the bike or to walk. In addition, the price increases depending on the road conditions and time. This is a serious neighborhood since some people leave this area to go far in the city for job and distance added to the bad road conditions make it job and shopping tough. Women have also developed a strategy to collect the money and needs of 02, 03 or 04 or more households to confer to a single person who shopped for all.

Martine: yes, it lacks a health center, because there are emergencies that cannot be treated in the neighborhood. I have lost a child in 2007 because the child fell to 01 hours until midnight and I did not have a bike or a car, and the child died at 02h. So if we had a good road, it would be helpful for us.

Thierry: Sometimes we go out with two coats and two shoes: 1 out of the neighborhood and the other for city mobility.

Belmondo: almost every day I'm late to school because motorcycles are not available

Nestor: me particularly, I was working in Akwa but I had to leave because of the distance and cost of transportation since the fare is about 1500 to 2000 F per day and for a job that is paid to 40, 000 CFA. The boss didn't want increased. It is because of this that most people here prefer to raise pigs because with this, the mobility is reduced.

Conclusion

After this review, the inhabitants of Cité-Beige, men, women and youth wear their development priorities on accessibility (road), electricity, sanitation and access to water. They would like more health centers and gaming areas. They think that their neighborhood will not be the "Village" when government will have provided the infrastructures as in the planned settlement as Bonapriso and Bonamoussadi.

Mr. 28 years, building technician: at the peripheries, there is fresh air like at Logpom, Logbessou, Yassa and here. In 10 or 15 years, we will have destroyed all the forest and we will even cross the water. All because the Bamiléké man do not like to see the plots with his eyes. He prefers to buy land to 50,000 FCFA and backfill up to 2 million CFA.

Figure 9: New house in Cité Beige



Nkolbong settlement report

Background

Nkolbong is a semi-planned neighborhood with the middle and upper classes. It is located east of Douala in the "Large Planned Zone of Mbanga-Japoma" extending from Nyalla to Dibamba River. This is a huge urban development plan in the eastern suburbs of Douala. It's including the construction of social housing in Mbanga-Bakoko, individual pavilions of the Douala Development Company and nearly a thousand of plots.

Nkolbong was originally the site of resettlement of evicted from the ASECNA area, east of Douala airport. Yambong was the original name of this site donated by indigenous Bakokos, the Bassa ethnic group living in the settlement. Later, the area became known as "hills of cassava" (Nkolbong) derived from agricultural activities practiced by Ewondos (ethnic group of the Centre region). The settle of the area began in 1992 when more than 215 evicted settled there on nearly 66 ha. The intensification of the settlement occurs in the 2000s with the reprofillage of the road Nyalla-Ndokoti, the installation of logistics base of Chinese in Nkolbong with the addition of some services such as water and road, and finally the tarring of the road Ndokoti-Nyalla (2006) and Nyalla-Yassa (2009). All these factors are associated with an overall development project initiated by the Douala city council. The cost of access to land is revalued each time and the result is segregation that eventually made a neighborhood for wealthy and middle classes.

***Oum, 60, first resettle to reach Nkolbong:** To get to city-center, it was first necessary to walk until Nyalla. From there we boarded trucks for Ndokoti. The children went to the class with 02 outfits because at the level of Logbaba there was "Avenue 07 lakes." So after crossing these lakes, the children kept their dirty outfits in an old woman house. It's after that Douala city council reprofiling these roads, and a few years after the Chinese compangny tarred the Yassa-Nyalla Avenue. It was from that moment that the neighborhood has really densified as you now see.*

Nkolbong is built 80% by residents, and do not say one day that it's the government. We have built the school with our own means with temporary materials. We who have sent it to the State after 3 years of managing. It is with Japanese cooperation in Cameroon that we had a real school here.

The native community came here seeking to recover plots from resettled. After having sold all the plots around, they started to ogle the vacant plots. These problems contributed to destabilize the plan expected by CUD (Douala city council). People settle here have started built anyway without looking at the references that the CUD has given us. It is unclear what will happen in the future.

About the disorder, I remember that in 2002, this place was the thefts reference, where they have been shared their loot or have been attacked walker.

215 people have been resettled here, but so far there is no more than 10 residents resettled. Some sold their plots, others plots were recuperated by the CUD to be handed to persons not resettled.

The people built initially with provisory materials like mine you are currently viewing.

Initially only the poor have the courage to settle. The richs could not come to live in the insecurity. Today it's the richs that settle much more because it is already habitable. Even people, who search for rent houses, want permanent houses whereas initially we only wanted the house. People here coming from all over and even Europe; Kolbong is used to relieve denseneighborhoods.

***Mrs. X, merchant, 45,** We are among the first to be resettle after eviction in ASECNA area. We experienced very difficult moments here, with disease, thefts, and no roads. At Ndokoti, we were called the "oxen from Nyalla" because we were dirty and disembarked from the truck.*

Figure 10: Street in Nkolbong



Housing and services

Nkolbong is permanently under construction. Apart from a few houses of low standing belonging to a dozen of households oldest installed, the neighborhood shines with modern houses made of medium-quality and villas with impressive gates. The majority of people own cars. However, the proportion of tenants could reach 40%. They are attracted by the accessibility, the peace and security of a suburban area. Some tenants hope to more easily find plots to buy or establish themselves as guardian/caretaker of plots awaiting construction.

Access to water and sanitation

In 2002, drilling of the Chinese logistics base fed the neighborhood of drinking water in addition of wells that had few inhabitants. The arrival of the richs increases the number of drilling with free or paid access to other populations. 20 l water for drilling costs 25F. It's in 2012 that the CDE water supply network was extended to the neighborhood. Today a growing number of households have access to water from the CDE and always decries against power cuts and questionable quality. This is why many prefer drilling water considered as healthier.

Toilet and sanitation

Toilets are semi-modern and modern. These are individual toilets. Hysacam collecting garbage 3 times a week at the predefined deposits stations and direct collection from households. The neighborhood is one of the few of Douala who did not have flood problems or water stagnant as it sits on a hill. Despite the lack of gutters on some roads, slope allows easy drainage.

Access to electricity and telephone

If the area is well served today by electricity, this was not the case before 2009. Only a select few had electricity from nearly 4 km from their home. Hence brownouts so disparaged. Today, there is a serious risk of overload the transformer feeding the neighborhood. Most households are subscribing to the electricity network. Regarding access to the telephone network, Nkolbong knows no particular problems outside the congestion problems common throughout the city.

According to inhabitants, building a market and sanitation are priority. Secondly, for elders, security is more important, while young insist on the improving of water supply and electricity. A market is necessary because women are forced to borrow the motorbike, then the taxi to reach the market of Nyalla Chateau (4km) or the market of Ndokoti 7km. Water and electricity problems are not of particular concern, these are the problems experienced with varying acuity in all neighborhoods of the city. It currently lacks a health center in Nkolbong.

Before 2002, Nkolbong was not attracting people because of the ubiquity of the farms, the lack of roads and basic services. Today, the neighborhood has become very attractive due to improved accessibility requirements (tarring of the main road) and the significant improvement in the supply of urban services.

Mrs. X, merchant, 45. The electricity arrived here for about 03-04 years. Each one asked his subscription and after a field visit, the price was set.

Currently, the native of Bakokos and Japoma solve the disputes, since this was their customary land before state pulled to resettle the evicted until recently they sold the rest.

There were plots for the market, the stadium and others, but the native have still sold to ignorants.

Mr. Y, a civil engineer, 48: Reason for installation in the neighborhood: At the first time, my sister asked me to assist him in the supervision of his plots, because she was not here. When I left Ndokoti to here, I slept in the dark, I was scared and beyond 18h, I was locked myself in the house.

Livelihoods and mobility

Nkolbong is middle and upper classes that come from peri-central areas of Douala. It seems that the Bamileke ethnic group is still dominant. The majority of inhabitants are working in private sectors, distribution, including at Ndokoti and at Central Market. There are few civil servants and part of multinational corporations. However, youth unemployed are more active in building operations that can be found everywhere. So their mobility is reduced and it becomes more weekends when necessary to visit friends, family or entertaining. Nkolbong also have a significant proportion of Army personnel. Within the neighborhood, there is no park for motorcycle; this can lengthen the timeout when busy. Once on the main road, only workers traveling in the center of Douala (Akwa-Bonandjo) experience frequent

congestion at Ndokoti or at the east entrance to Douala. The motorbike costs 150 F from inner neighborhood to the main road. From there, workers are forced to take the "cargo" at 100F or 200F to reach Ndokoti square. After 20 hours, it becomes difficult to find the motorbikes that will go into remote areas of the neighborhood, this obliges users to take long walks to reach home or to get out, exposing themselves to various attacks. However, walking does not take more than 20 min.

It is easier for the inhabitants of Nkolbong to go to Edea and Yaoundé than to go in to the inner city where a lot of traffic jams ride. Nkolbong benefit to the effect of the periphery located on the Douala-Yaounde highway.

The services to improve according to inhabitants are water, electricity, sanitation, local transport. Regarding the water supply, the quality provided by CDE is questionable, added to frequent interruptions without prior information. However, households have developed strategies such as constitute huge reserves from 500-1000 liters. The well is still an alternative for everyone. In terms of electricity, it's the voltage drop and also cuts without prior information. For sanitation, the people want the materialization of gutters and densification of trash bins, because the existing ones are becoming more distant. For transport, the inhabitants want the tarring of secondary roads to facilitate internal mobility. It should be noted that people are very concerned about the growing insecurity led by disaffected youth who smoke the drug and stealing motorbikes and women bags day and night. Inhabitants insist on a security post or self-defense organization.

***Mr. Zé, electrician, 41 years:** I live 03 years in Cité CICAM, 4 years in Omnisport and it is after these 7 years that I got to Nkolbong. I found the fresh air here. I tell people that Nyalla is the new city of Douala. People who want peace, tranquility and fresh air, leaving the buzz of the inner city, choking from Akwa for example need to come here. Thus the price of m² of plots increased from 1,000 FCFA we were paying long time to 15,000 or 30,000 CFA today. This new city will be provided in all infrastructures.*

***Abraham, 53, boilermaker: special residential mobility:** I cannot make the choice of a neighborhood. All, except the old neighborhood are the same. I lived several neighborhoods. I was born in the village but I grew up in Nkomondo where I even worked at the council, then I left for Cité SIC, after I went to SYNCATHEX, then at Block 09, then Total Logbaba. After I went to Logbaba plateau, then Nyalla, then Nyalla-Castle; from there I went to Bonamoussadi and Akwa-Nord, then I still come back to the Castle. I left there to Hausa neighborhood; it's where I finally built.*

***Mrs Tokia 40 years.** What bother us here are the hemp smokers, the small bandits who break shops or profit of rain to make foray into people's homes and attack them. It's even said that some people grow hemp already in the neighborhood, but the authorities are doing nothing to protect us.*

The area was mapped out by the CUD to be one of the most beautiful areas of Douala, but since the native community mingled there was a mess. There are men who come here held to snatch the plots as they wish. When we complain about at the Logbaba brigade, there is unanswered.

Increasingly ill people come here and some try to rape children. Thus we see that the city comes up with a lot of ailments

Conclusion

The inhabitants of Nkolbong finally dread the excessive densification of their neighborhood and think that it's promoted to a future bright if the authorities solved the problems cited above. They also dread the intensification of land issues with the risk of crowding out the poor for the rich owners.

Mr. Oum: *It lacks of the market place, the site dedicated was occupied for now, we need registration centers, public health center, cemetery and a police station.*

Mr. Mbong: *We have already established a police station at the crossroads, but we need a police station inner neighborhood.*

Mrs. Tokia. *In 10 years it will be like in Akwa and very tight.*

Mr. Afana: *since the natives sell almost everything, we will soon be in serious situation because they even sell the roads.*

Mr. Mbong: *There is here a territorial problem since there is no chief that can control the neighborhood and carry the claims of inhabitants at higher levels.*

Mrs. Tokia. *Native roam the neighborhood and sell any plots that seems free. They have no associations. They walk with a fake paper bearing a registration plots. As some are not vigilant, they end up by dupe many.*

Mr. Mbong: *They often come down with machetes and spread terror. They often claim customary land rights.*

Cameroon: Bafoussam settlement reports

Authors: Chrétien Ngouanet, Aristide Yemmafouo, Hélène Mainet, Jean-Charles Édouard, James Esson, Katherine V. Gough, Romeo Keumo

General introduction

Bafoussam is a highlands town of around 300,000 inhabitants. Its main functions are administrative, trading and farming. The town is located in a high density region with tormented history, with lots of migrations and mobility at different scales (local, national, international).

Urbanisation trends are linked with rural events before being fed by regular rural migrations, now balanced by urban natural growth. Each town in the region is spatially and socially marked by economic effects of coffee production and impacts of independence war.

Urban growth has been sudden. Attempts to plan towns have been overflowed by new migration flux. Urban problems are specific but are also linked with global and systemic problems connected with rural areas.

Through chosen neighbourhoods, 3 periods of urbanisation are visible (colonial, post-Independence and recent).

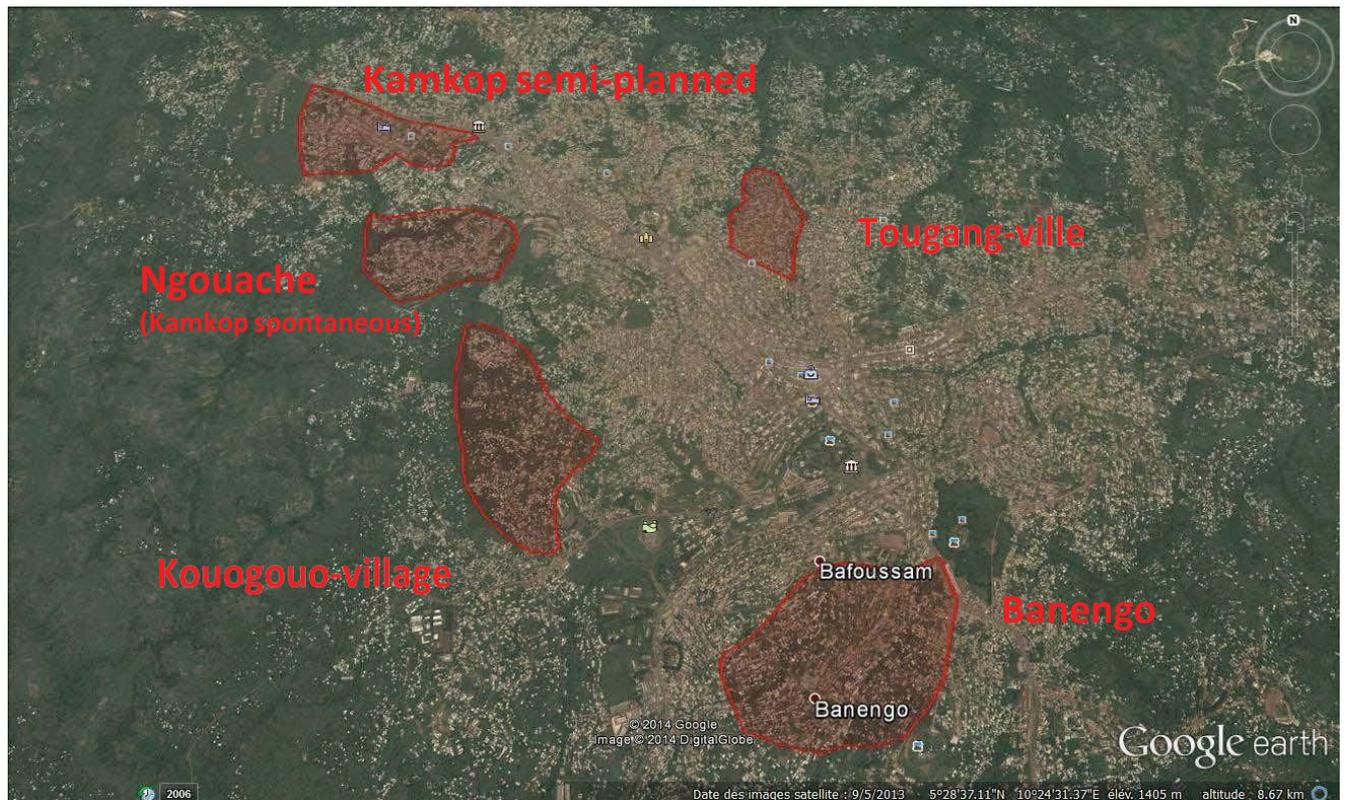
Table 1: Settlements studied in Bafoussam

Neighbourhood	History	Location	Income-level	Rate of population growth
Kamkop (semi-planned)	Planned and semi-planned settlements built in the years 80-90	North west (before the military camp)	Low and middle	Growing in size
Ngouache (Kamkop spontaneous)	New spontaneous area	South-Western part of the town	Low /middle	Growing in size
Tougang ville	Old spontaneous settlements	Central part of the town	Low	Stable overall
Kouogouo-village	Native, spontaneous area (1970-1990)	Western part of the centre	Low /middle	Growing in size
Banengo ville	Old planned area	Central part of the town	Middle/high	Stable overall

Figure 1: Truck commuting from Bafoussam to surrounding rural areas



Figure 2: Map showing locations of different sites in Bafoussam



Kamkop settlement report

Background

Kamkop is the prototype of semi-planned neighborhood. At the beginning was the parceling of Kamkop. From this, customary owners have guided semi-planned areas. The site of Kamkop was originally planned for Bafoussam airport, but it proved too close to town. Once a replacement site was found in Bamougoum, it was decided to parcel the Kamkop site for the urban needy. It is under the Governor Luc Loé in late 1980 that this part of government real estate near the military camp was redistributed to public servants failing to build due to the lack of plots. Plots were distributed free to administration executive staffs wanting to establish in Bafoussam. Infrastructures were putting in place immediately to attend the installation.

Customary owners around encouraged by this planning have tried to extend themselves the materialization of roads to access the services of Kamkop planned. This process forms Kamkop semi-planned and the higher you go in rural areas, the further spontaneity moves.

The military camp was the border of the city and Kamkop was only scrub cultivated by indigenous and some city dwellers. In two decades, land market have increased, the proposed industrial zone was aborted despite the fact that two soap factories are installed among people.

Tatiamo Kuete Albert, 56 resident since 36 years, farmer: here was the site of the airport and it was in 1980 that the neighborhood was created and was called Kamkop airfield. In 1987, the former Governor of the West region named Luc Loe organized a campaign to distribute plots to the people to build it, so that the bush disappears. To have a plot, it was just to come here during the distribution campaign with a bound, so it's like that all employees of the governor and the council staff took the plot there.

However people who had the plot and have not built or made land titles had their land snatched by a former mayor of Bamougoum named Nsongang. You see that those who were awaked here have made their land title, but there are many people here who are still without land title. Me I bought my plot to an individual who returned home because he became father's successor in Mbouda. There were no roads, only one track. There were not many people here. Evolution of neighborhood happens when a Bamougoum named Tankou sells his plot to the famous Donacien who built Palace hotel and tarred the main roads in this neighborhood.

Ngah Owona Gilbert, military, 6 years living in the neighborhood: Here people were given free land, but today there is more land for sale. The few people who had bought large plots at low prices are now parceled and resell very expensive. There are four months my friend wanted to buy an old house here to rebuild, he wanted to buy from a gentleman who wanted to send his son to the United States at a price of 4,000,000 FCFA, he refused.

Tatiamo Kuete Albert: The Bamougoum sold all their land to Mbouda and Dschang peoples.

Male, 50, living in the neighborhood since 10 years: Already when I say "I live in Kamkop, we know that you are rich." There is no problem in the neighborhood. Safety was not a problem as the divisional police officer, the mayor, and even an army captain living here in the neighborhood. But I find drawbacks to this neighborhood because is only us who support the road maintenance. In this neighborhood government did nothing.

Housing and services

Kamkop has the general appearance of an upscale neighborhood where most houses are behind walls height as the walls of houses. This landscape is occasionally broken by farms

on vacant plots and traditional houses resistant to modernity brought by the city (infrastructure and services). The people are almost in equal proportion of tenants and owners. It turns out that many civil servants who had had plots and built, went retired or been assigned elsewhere; thus the rental of their houses. Here found the highest rental costs in the city: from 40,000 FCFA for an average modern apartment.

Mariette Pouth, 9 years in the neighborhood, bar owner: *the majority here are civil servants, some parents have children in Europe, and businessmen in market A and market B. We can easily count the number of homes without a car in this neighborhood.*

Tatiamo Kuete Albert: *those who have their monies continued to have and build more buildings. Besides there is a businessman of market A who came to me and asked me to sell my plot and turn back to the village; you see how the people here are brave!*

Access to various urban services is largely sufficient in Kamkop: electric power is available and is experiencing the same problems throughout the city. Even renters have their own AES-Sonel counter. It is the same for access to water. However, connecting to water supply CDE does not exempt water wells. Households have wells for washing and generators to face energy shortage that is a general matter.

However, sanitation is problematic. It's no more problems at household level but at the level of soap factories among the houses. In fact, these two soap factories installed at the same time as people pollute the soil with their waste oil escaping from their confinement. In addition, the smoke released and sounds stuffy residents significantly impair health. The other problem is the risk of accidents in the soap factories. In 2011, an explosion in one soap factory had severely wounded 5 people and destroyed more than 3 houses.

Tatiamo Kuete Albert: *SNEC arrived here in 1987 because of the needs of the military camp and the Palace hotel. Before that period they drank water from the well and the stream. That is what was causing the disease everywhere. Tankou also contributed to the expansion of water supply in this neighborhood.*

Female, 60 years senior executive regional administration: *brownouts are very common and burn our electronics materials. It's hard to light in all the rooms at once. Children have difficulty studying in the evening, they have to use lamps or wait 3pm to study.*

Women arriving since 15 years by marriage: *What I dislike is the pollution from the factories because it emits black smoke that chokes us and when we complain the company officials did nothing to prevent or reduce, then in short, it is my health and that of the inhabitants of this neighborhood that is in danger.*

I throw garbage in the field (which is biodegradable) and the other when the truck of Hysacam passes to pick up twice a week. My toilets are well appointed and well maintained, I have no problem with that.

Currently, people express the need for a health center to reduce the 4 km separating them from the regional hospital center as the nearest health facility. Water problems, lighting and road are not specific and must be treated globally. The attractiveness of Kamkop makes it a much sought neighborhood for civil servants newly affected in the city. In 80% of the interviews, the respondent, young or old does not see why he would change neighborhoods.

Livelihood and mobility

Kamkop is dominated by middle and upper classes. However, the poor create a social and landscape diversity. The people come from other neighborhoods of the city such as those civil servants who first settled in poor neighborhoods dominated by natives from their villages

pending the release of an apartment in Kamkop. Others come directly from other cities or are in their first duty position. This dominant of executive staff of regional administration should not overshadow the businessmen sectors where villas challenge with poor families who live from money transfer and agriculture.

Because of accessibility, the villas of businessmen are not just housing, but also stores. Taxis serve the neighborhood when taken in private trips.

Ngah Owona Gilbert: the majority of occupants are executive staffs, military, businessmen, and farmers.

Conclusion

People close to the soap factories firstly wish elimination of noises and others pains associated with the presence of these factories. Unanimously the lack of game places for young people and adults is stressed. There is the military stadium but with very restricted access. The regular maintenance of roads and street lighting are among the priority concerns.

Very few residents want to leave the neighborhood, whether for abroad and did not see change in the coming decade. Some young people find that the neighborhood is too classic, without "hot places" (places of relaxation and alcohol) as informal settlements like Kouogou'o or Tougang.

Tatiamo Kuete Albert: I want people to think to create an integrated health center in Kamkop, this would avoid us to go to the regional hospital which is far away. Here private clinics provide care at very high costs.

Elama Brigitte, 40, a resident for 06 years: We must build places of recreation for our children because there are no places for relaxation of children here.

Women arriving for 15 years by marriage: I like neighborhood and I do not want to go elsewhere. However, I wish the delocalization of soap factories that pollutes the environment.

Young school senior, 19 years: I was born in Libreville, before I lived with my parents in Douala. I came here last year (2013) to get to my grandparents and to study better, I'm 19 years old.

What I like in the neighborhood is calm and girls.

What I dislike is the state of the road because trucks of SCS factory degrade the road and it pollutes the air with the smoke, there is also insecurity.

In five years, I want to be a player in European club (Paris St Germain or Barcelona), after high school, I want to travel to become a professional player.

Residential mobility of the household of a Shepherd: *I was born in the city of Nkongsamba, we lived in this neighborhood, 11 years ago. Before we lived in Tougang-ville, we moved here because it's a neighborhood where the houses are generally in the barriers, and the houses are bigger. The benefits of living in this area, I can say: security and water and power cuts are rare, here we do not have a lot of noise.*

The disadvantages of living in this area, I think the major problem is the waste water that is usually dumped on the roads. We left the neighborhood Tougang because the house had become small, because the family was growing.

Man, 56 years: *I'm comfortable in my neighborhood. If we had to move, it would be to go to the village because I am aiming to build in the coming years in the village.*

Overlook of mobility in a wealthy family (wife, 60-year senior official regional administration): *private property with land title. We are 07 people living in this house with 02 children in America and 02 children in Canada. I live with my nieces, nephews and cousin because my children are grown and have left home for college. I have children in Douala, Yaoundé, Dschang, Bamenda. The one in Bamenda are in the training school and others are at universities. I make transfers through express union to children in other cities (monthly) or sometimes at their request. I send money to my mom in Fouban each month. Children abroad also send me money through western union.*

I love my neighborhood because there are several school and very peaceful. If I was to change my neighborhood, it will be abroad. I can not go back to my village because I am married and my husband was a native of Bafoussam.

Figure 3: Street in Kamkop (planned settlement)



Ngouache (Kamkop spontaneous) settlement report

Background

Ngouache is a spontaneous neighbourhood sprawling towards West of Bafoussam. In reality, it is the spontaneous extension of Kamkop on the slopes bowls more or less steep. This area had no economic interest until the early 1990s. Urbanisation intensified from the 2000s when water and electricity were installed. Land stakes is still controlled by Bamougoum (native) who sell land regressively to the centre of their village. Once the urban front of Ngouache was opened, speculation was manifested by land accumulations by peoples of Mbouda and Dschang. These city dwellers buy several plots left in fallow while waiting a revaluation of land prices. Consequently, a constant discontinuity in the built area with large farms isolated sometimes rural landscape. Sprawl and mixity reminiscent of a periurban neighbourhood to be quickly integrated in to the city of Bafoussam.

The price of land literally took off. In the 1980s, 50m * 50m was sold for 300,000 FCFA, today 15m * 20m trades around two million FCFA.

In Bafoussam, however, Ngouache is infamous by repetitive cholera epidemics that it has been identified. The contribution of pre-cited urban services was also an urgent solution to these repeated epidemics.

Housing and services

If the majority of the houses are in mud brick, however, we observe the development of houses with solid materials. Some sectors of Ngouache just experienced their first storey buildings, evidence that the rich are already moving into the neighborhood. In addition, renters are as many as owners. They are attracted by cheaper rents (15,000 FCFA for a lounge with 2 bedrooms), and even more for school infrastructure that are created in the neighborhood: Ecole Normale, High School, Kindergarten, etc. For evidence, Ngouache was the only place where the administration could still find space for public services at the south of Bafoussam, but today the neighborhood is saturated.

Ngwana Michel, 28 years: it is much more mud brick homes. We find that there is one major road, the rest are tracks. Here one can count 3 buildings owned by people who live in metropolises, only the caretaker lives in the villa. These new buildings are from 2008.

Access to water is a catastrophe to Ngouache. The geomorphology of the site does not permit to dig wells at all levels. Indeed, the ubiquitous of rock outcrops prevent to dig deeply. So, people are obliged to supply water to the backwater or to multiple resurgences (source) of the neighborhood. In 2000, the water and electricity network was installed along the main roads of the neighborhood. The most dense sectors and served by tracks have not been covered. Consequently, these people continue to buy drinking water, 20 liters to 25 FCFA and "manage" with backwater for others activities. In the poverty context, the savings of water can trigger epidemics such as cholera. Indeed, sources of contamination spread very quickly.

Ngwana Michel, 28: SNEC and electricity arrived here before 2001. Before this period, we drank water from well and backwater. That's what was causing the diseases everywhere. Hence the name Ngouache meaning "rejected neighborhood." Many people who owned land here had to abandon because of cholera.

Tanon Rigobert: the municipality has built a source recently, but it dried up in the dry season.

Tafeyim Bertrand, 42 years: We buy water from good Samaritans who agree to sell the water. Here in the neighborhood, there are almost 6 people who sell water. But if you arrive during the day, there will no one to sell water in these homes. They sell 0-20 L at 25 FCFA; they do not take less than 25 FCFA.

Mr. 35: When the light is cut, we charge phone at 200F paying to the shopkeeper.

Similarly, electricity is largely failed. The transmitted power is far below the demand in this neighborhood. Indeed, Kamkop and Ngouache have only one transformer. Therefore, before reaching Ngouache power becomes too insufficient to meet household's demands. All households complain brownouts from 6pm to 10pm. Students at that time cannot revise their lessons.

When added to water and electricity shortage, accessibility and insecurity issues, all is done to turn Ngouache to a repulse neighborhood. Indeed, since that is located on a steep slope, the roads are not only difficult to materialize, but also to maintain. We understand why it is said that in Ngouache it is better to walk on "4 * 4" than to risk his life on the motorbike when it's raining or dry season. The "4 * 4" here does not mean "four wheel drive", but walking, which at that moment is more practical.

Theft, assault and rape came several times regarding insecurity. Crossing the Ecole Normale area and the wide cropped field is strongly discouraged after 8pm. Self-defense was organized by the people with the support of the authorities; however, declining of theft reduced vigilance and therefore a call for the return of thugs.

Fenzeu Felix: we have enough of electricity shortage, over 10 houses, only 5 houses were electrified. Therefore, those who have electricity refused to share with the neighbors, fearing of dropping the tension at home. The shortage often lasts 3 hours and sometimes overnight.

Tanon Rigobert: weekends it's worse.

Tafeyim Bertrand: here there are only 2 milling machine, but they can no longer work.

Tanon Rigobert: and darkness, increases insecurity.

Tafeyim Bertrand: there are also devices that burn out due to multiple shortages. The low voltage is so severe that you can't read. All Ngouache and Kamkop have a transformer, so that the voltage is shared among several people.

Tafeyim Bertrand: when you ask electricity to someone, it requires you to deposit 10,000 FCFA and charges you 100 FCFA per kilowatt. But we should add leasing counter that costs at least 500 FCFA. At the end we are left with bills from 2,000 to 3,000 FCFA, while not even light bulbs. During the electoral campaign, politicians always deceive us.

Mr. Kamdem, 26 years: here there are a lot of thieves, it's the reason why from 8pm you can't walk through the area of Ecole Normale.

Mr. Kamdem: For motorbike-taxis, during the day, you pay between 100 and 150 F and at night it is minimum 300 FCFA. The customer who refuses to be "sheeted" (overload) should increase the fare. Sometimes I wear 3 passengers on the motorbike, plus me, it's 4.

Mr. Donjio: to go to school, we take the bike when you we have money. The "sheeting" (overloading) increases the risk of aggression and theft; I myself was a victim of a theft of a motorcycle.

Sanitation and toilets

In the same way that rock outcrops prevent digging wells, they also prevent having deep toilet. Thus excreta based on a low permeability background are very close to human activities and soil very quickly whether from drinking water sources or CDE water supply. The quality of water sources is also questionable, since it is actually resurgence largely polluted upstream. From the foregoing, it is understood the risk of cholera constantly hovering over the neighborhood. At these hazards is add the vulnerability of people. Their poverty increases behavior's risk such as discharge of sewage in the yard or swales, proximity to toilets and pigsties with housing, waste storage for agriculture (semi-homecomposting).

Hysacam collecting garbage from 2 to 3 times a week, but people from inaccessible areas does not drain their garbage's to the bin provided for this purpose. The trend is for the conservation of waste for agriculture or discharge into ditches and steep slopes.

Mary, 40 years: Before we called this neighborhood "Ngouache-cholera" because people drank water from the well and it caused a lot of waterdiseases.

Mr. Noumenon: I was born here; this area has longer suffered of Cholera outbreaks, hence its name "Ngouache-Cholera". During our childhood, it was present, but it has declined.

Livelihood and mobility

Youth that do not go to school work in building industries or motorbike-taxi. Others are hawkers in A and B markets. It is noted that there is no priority for these activities. A young person can start with any of these activities and finish with another, it depends on the revenues it generates to meet his needs. Out-migration of youths to other cities is also important. Many parents find that the neighborhood will not promote good education for their children and send them sometimes to the host families in neighborhoods better provided, thus Banengo, Kamkop or among family members in other cities. Many households are polygamous and approximately 5-7 children perhousehold.

Fenzeu Felix, 42 years: the majority are poor because we have essentially motorbike-taxis workers (benskiners), taxi drivers, shopkeepers in A and B market. We can easily count the number of people own vehicles in the neighborhood.

Adults are more traders, farmers, drivers and taxi drivers. These two park their vehicles in downtown and borrow the motorbike to back home because of the lack of parking and the risk of theft.

Many receive transfers of large cities and abroad, while mobility for the village is very intense because of reinforcing tribal solidarity between citizens of the same neighborhood or the same lineage ending up in a city. This obligation of solidarity and support oblige to go to

the village constantly for traditional ceremonies. So, it is when coming back that give the opportunity to occasionally supply for food and wood for cooking. It is therefore possible that the proximity of the city to the village of a city-dweller ipso facto produce greater regularity in the village. By cons, semi-commercial agriculture for personal purpose or farm labor is done only in periurban agricultural basins that are Baleng in Bafoussam, Bamougoum, Foubot, Ngouaya in Bambouto, Bansa and PenkaMichel.

Fenzeu Felix 42: *Yes, I am going to village almost all the time for ceremonies, funerals and more. I am constantly in the village, this month I am on my fourth trip to the village.*

Tafeyim Bertrand 42 years: *one comes back from the village with a lot of food. I can go with a bag that weighs about 50 kgs. There is what is given and what you buy.*

Rigobert Tanon, living since 1999: *What I bring back to the village serves only to dampen spending, because even if there is nothing in return we must have turn back. In addition, there are days when you come into village you turn back without going at home. The last time I got home, I had a loaded bag.*

Conclusion

At Ngouache, despite the fact that all services except education are failing, people attach importance to electricity, including the need for a transformer for the neighborhood, the road whose maintenance must be permanent, security, including street lighting and a police station or gendarmerie, water and mainly connecting all households to the CDE network, and finally sanitation.

The people find that their neighborhood will be promoted to a bright future with the eradication of the spectrum of cholera and installation of the rich who are beginning to build. Many do not think to leave the neighborhood especially since they own or hope to buy land on this urban front. Other, younger, dream planned neighborhoods as Kamkop Banengo.

Tanon Rigobert: *in 2000, we had not thought that we would still be at that level; so I think if it continues, in 10 years and we will still be where you are.*

Fenzeu Felix: *I think we should think about creating a hospital in the neighborhood Ngouache, this would avoid us to go to the regional hospital, which is far away. Here, private clinics do not provide care that always meets the inhabitants.*

Mr. 27: *What I do not like is the lack of street lights and witchcraft.*

Mr. 22, student: *We left Tyo-ville not, because of a low level of services, but it is because my father had found a great space that can hold all his family and his three wives.*

Mr. 28, a resident, worker in market B: *I was born in Bamendjinda and I came to this area in 2012 because the house I occupied in Tyo-village (02 rooms, thus one bedroom) has become small, and more, was in a swampy area. As benefits of living in this neighborhood, I can say that here the roads are accessible and low planned. Schools here are far from home. The disadvantages of living in this area here there are a lot of assaults increasing insecurity and water supply is not at all easy. It is planned a construction of a public drilling in the neighborhood and it will also not far from my home. I left my old neighborhood because of a low level of services; the motorbike could not arrive athome.*

For toilets and sanitation, note that the first few months when I got here, I was going to relieve me at the neighbor because the toilets in my house were destroyed. To solve this problem I heard with the landlord to build toilets and pay rent 6000F for 3 months instead of 10000F month. Wastewater I pour them into the yard and they pursue their paths. Garbage these are the children duty; they are going to pay two minutes from the house in a Hysacam dump that is responsible for removing them once a week.

For access to electricity, I take to the neighbor, I have my submeter. I will tell you that the shortages are constant and brownouts are also regular from 18h, children cannot revise their lessons and are forced to go to bed. To me access to the service is not adequate because for water, for Electricity there is brownout every day from 18h to 22h. For waste, HYSACAM sometimes does not come; smells and flies want us dead. Also there is no waste bin, sometimes waste block the road

Mme. 63 years: *I was born in Dschang in 1951, precisely in Foto. I settled in this neighborhood in 1987. We purchased our plot in 1986. I arrived in Bafoussam in 1976. Before arriving in this neighborhood, I was at the rain gate of Tyo-village. In this neighborhood, I have moved house three times. We bought our lot to 200 000FCFA. We moved because children often fell ill, that was the first house. The other house was changed because the landlord had increased the rent. The last house was changed because the landlord was jealous, this due to the fact that we had bought the plot. That's why we urgently built a small house on the quarter of the plot we had.*

The advantage of living in this neighborhood is that there is no mud. I was a teacher in primary school, now I am retired. The disadvantages of this neighborhood, it is the voltage drop in electricity and bandits. In this neighborhood, there is a self defense committee, before they paid 1000 FCFA annually per household. Today, the sub-prefect imposed that we have to pay 3000FCFA per year.

I receive money transfers to Express Union; the children send that money from Yaoundé and Italy.

Figure 4: View of Ngouache (from Kamkop)



Tougang-ville settlement report

Background

Tougang-ville is an old spontaneous settlement at the city center of Bafoussam. It adjoins the western boundary of Market B Bafoussam. It was occupied in the same context as Kouougou'o, that is, during the troubles of independence in the 1960s. The neighborhood is invaded by peoples from Hauts-Plateaux (Highlands subdivision), Bandjoun Bamendjou, all ravaged by war. There was no time to implement infrastructures; people were crammed in shaky habitats as in IDP camps (Internally Displaced Person).

Tougang was covered by coffee until raffia valleys. The first occupants were obliged to stumps for grub. A foot of coffee destroy was 5,000 paid to the owner. Those who do not have money because of having lost everything in the war settled on credit. Gradually many have paid some kind of right of settlement to the dignitaries of the village Baleng who controlled the neighborhood.

Today, there are no more native. The principle is the same as Kouougou: displaced invade a neighboring sparsely populated area near the city. Native install them and remain on the rural activities of their village, including coffee farming. Urban space is therefore of little interest to them. They changed their minds when it's too late, that is to say the area is almost completely occupied. They are thus reduced to reclaim installation rights that all do not pay.

Today there is only to resale by the former IDPs.

*Mr. 76 years old: My name Deffo David, born in 1938 in Bandjoun. First, I lived in Mbanga and Douala. I left Douala to Bafoussam in 1982 and I moved into the neighborhood Tougang-Ville. I am owner of the property that I occupy. The surface area of my piece of land is 20m*20m. In the past, Tougang-ville was planted by coffee trees and lands were sold and measured by calculating per foot of coffee tree. A coffee tree was around 5000FCFA. I ripped more than 30 feet of coffee that give around 150,000FCFA. This corresponded to the surface of my land. The space between 2 feet of coffees was less than 1 m in the city because it did not meet the standards when coffee trees were planted. The occupants came from everywhere: Bandjoun, Baham, Baleng Mbouda and everyone had to pay coffee plants to settle. At my installation in 1982, the houses were mainly built with clay. Today it is a mixture of clay house and modern house*

Mr. Lekounze Zacchaeus, 39, technician: people name the Baleng "sellers of plots", they all sold here.

Housing and services

The houses of this period of political instability were very basic: mud brick, thatched roof, 1 room, maximum 2 rooms, size 3*4m or 4 * 4m 6m. Nowadays, these houses still exist, despite the renovation in the foreground of the main roads. Most people own through inheritance. These houses become family heritages like Deido (Douala), on which it is sometimes written "*family home, not for sale.*" These writings prefigure land disputes prevailing in these families about the preservation of family property. Consequently, the landscape of the neighborhood remains almost the same, no major changes due to land

blockade: no sale of plots, disagreement between the sons about the renovation, etc. Emerging young, much like in the scenario of New Bell in Douala must leave the neighborhood to settle in the suburbs being extended.

***Mr. Emmaleu David, 47 year old, driver:** the fact is that parents put in the head of the successors not being sold inheritance. That is why they are conservative and do not sold land to those who could invest well.*

***Mr. Lekounze Zacchaeus, 39 year old, technician:** a problem here too is that of the property since the houses were mostly no land titles. To this must be added the lack of insurance as the area is not planned. People are afraid to build on plots and be destroyed later. We therefore expect that the government finishes its work. There are also problems with boundary between neighbors.*

***Fezeu Simplicie, 37 year old, rescuer:** I was born here and I grew up here; I can tell you that nothing has changed here. The houses remain in the old model. Orphans and widows are trying maximum plastering the old walls. The houses are mud brick and the roof is made out of old sheets.*

We do not sell the land because they are legacies. If I sell, how will be my children? We prefer to keep it in the hope that one day my son will build.

***Rodrigue Talla, 25, student:** there is little innovation here because people are reluctant regarding the sale of land.*

There is however a significant proportion of young renters who want to benefit the effects of centrality and renting costs reduced. They come from the villages of the first occupants and are in their first or second residential mobility.

Like any old spontaneous neighborhood, Tougang-ville has a deficit of service more outstanding by their obsolescence than by their total absence. At the level of roads, only the main roads are accessible by car when erosion didn't completely degrade. The neighborhood owes these roads from the Agric Show held in Bafoussam in 1979. Usually, it's during electoral campaigns that they must expect the reprofiling of these roads. Otherwise, people organize themselves to maintain their roads as evidenced by the human investments Thursdays or Sundays. Other accesses are just winding tracks that barely bike. Promiscuity worsens sanitation problems in the neighborhood. With an average of 6-8 people per household living in 03 bedrooms, conditions privacy, hygiene and cohabitation are barely acceptable in an area as densely built and inhabited. And indeed, it is the behavior of the inhabitants that exacerbate sanitation problems and thus environment. Wastewater is discharged into the drains. Waste following three directions as determined by the household: in the gutters mid slope, below the bridge near the valley or in the landfill of Hysacam on the main axis. The toilets are in majority semi-modern, that is to say a set on a slab hole.

Mr. Lekounze Zacchaeus: we have a bridge that will subside in the neighborhood because initially HYSACAM had filed a trash bin. But when they have not filed, people continued to pour.

Mr. Emmaleu David: ditches are often clogged with garbage and it creates ponds that produce mosquitoes. But it is especially HYSACAM who created the mess because what they have accustomed us is not effective. It took at least 3 passages per week, but spends no more than once a week.

Mr. Djoubane: the problem here also is that there are smells coming from those who raise animals and dump garbage everywhere. The toilets are semi modern, some still have a few shelves while some have pots.

Romeo Tenkeu, 32 restorer: The wells are not adequate because they are found close to septic tanks.

Mr.: people pay garbage in the large rivers. And it was in this river that people wash their clothes downstream.

The water network CDE is present in the area, but only few privileged people are connected. Households prefer to dig wells that they combine with the purchase of water to drink from the CDE. Unlike water, the majority of households have formal electricity connections. This is the result of several promotional campaigns that have been organized in the neighborhood for decades. However, fraudulent connections and sublets, explain the level of brownouts related to transformer overload in the neighborhood. Street lighting is defective, however, residents are free to replace the bulbs or install where they need it.

Security is also a faulty service that always comes up in Bafoussam and in popular neighborhood in particular. Sometimes it is denoted the lack of solidarity in the insecurity situation as evidenced by the non-assistance to persons in danger at night or the difficulties to operating the self-defense of the neighborhood. Sometimes, some people extol solidarity in support for accessing services including security. This means that there are a variety of security situation and access to services depends on social relationships in a part of neighborhood become at this moment atterritory.

Mr. Tchuiti, 30 years: the water problem here is really serious, so that people feel compelled to break the pipes to power supplies.

Mr. 76: Someone built a house where the fountain was terminal. Domestic wastewater; we pay into the gutter as for other households, because very few people have septic tanks. There are only 05 people in the neighborhood.

Woman, 43, trader at home: I have been here 08 years. Before coming here I was in Tyo-ville, then to another house in this neighborhood. With 06 months of salary arrears, I followed my husband who decided to move.

As advantage that this neighborhood offers, I would say that well water is free because before I moved here, I had to buy tap water but also water from the well. Besides, I can easily pack my couscous because the leaves are free

As disadvantages, I can say that, here we take care of the lives of others, there is gossip. During the rainy season is not breathing because of torrents that have even carried a child. Before it was not like that, it is because a neighbor has blocked the channel by building on the road. We complained at the mayor who promised to pass but never did.

It comes down to the fact that the first services to be improve are roads, access to water, security, education, sanitation, electricity and health. Improve roads, is first and foremost ensure ongoing maintenance of the main focuses in the absence of the asphalt. This is by no means to create new routes or expand impenetrable inside the neighborhood tracks. For security, a security station and street lighting are expected. Saturation of classrooms in neighborhood schools calls for creation of new as well as comprehensive schools because the distances are still long.

While those born in the neighborhood leave because they feel their future is not guaranteed, others, new immigrants in Bafoussam appreciate the centrality and services that others find insufficient. Other mobility associated with marriages and inheritance.

Mr.: *the neighborhood is not secure. From 20pm, people were assaulted in road, on tracks that are not lit.*

Fezeu Simplicie: *worse, when you scream for help, nobody comes out, since everyone is afraid for his safety; from 20pm, our mothers already asleep.*

Mr.: *there are 02 days of that they killed a man at the entrance to his home.*

Mr. 60, trader: *before we had a self-defense service, security guard, but we realized that it is the same people who steal, who organize the robbery. On top they are faulty somewhere.*

Mr.: New intervening: *what is still worrisome here are observed early pregnancy among girls under 15 years sometimes? Childbirth became among girls in this neighborhood, a challenge that all seek to overcome.*

Girl, 20, student: *What I dislike are the traditional healers that abound in the neighborhood; the road is impassable by motorcycle taxis in the rainy season; backbiting.*

Young man, 20, student: *the downside is that the old people hurt with witchcraft; bad roads. My big brother is gone; my parents split the house and leased a studio. After the Bachelor I expect I intend to go abroad to join my brother.*

Livelihood and mobility

We are in an old poor neighborhood renewing very slowly. The old-youth transition socially observed has little effect on the landscape because the land is not renewing too. School youth of the neighborhood are engaged in the business of motorcycle-taxi and retail. Active women are “buy-and-sellam” or housewife; they often combine with periurban agriculture at Baleng, Foubot and Mbouda. The proportion of people receiving remittances is significant, evidence that many live by this money sent by migrants in other cities across the country and around the world.

Rodrigue Talla, 25, student: *it is the poors who dominate. The people here are mostly peddlers or street hawkers, retailers, and farmers. The elders mostly splitting wood for sale. There are no much public servants here. All generations of one family live in the same house. There is very little new construction.*

Since motorbike-taxis that easily serve the neighborhood, when it rains heavily, the slope becomes unstable and requires walking. Emergency interventions are very difficult because of the narrow roads. Only children are fetching drinking water that is why it is not always sure of the quality of the water they bring home. Insecurity obliges to sleep early and to avoid to the rescue, even for extreme emergencies, especially at night. It denounces the intimidation and cunning of thieves who make distress calls to invite local residents to open their doors. From a certain hour, people do no longer come in the neighborhood because of risk to being attacked. There is also intense activity of traditional doctors offering solutions to all diseases in the neighborhood and all actual or alleged occult evils emanating from the search for solutions to poverty. Their activities are not appreciated by some of the population, especially Christian.

Wougang Abdou, 55, warehouseman maintainer: *To come out here, there is only motorbike that you can borrow. In addition, the patient must be transported some distance before finding a motorcycle.*

Conclusion

Youth of Tougang-ville is very concerned about their future according to the high number of unemployed in the neighborhood. While some are pessimistic about both their future and the future of the neighborhood, others proposed the tarring of the main roads and the obligation for the elders to sell lands as the only way to renovate the neighborhood. At least average of them wants to leave the neighborhood in the next decades.

Mr. Lekounze Zacchaeus, 39, technician: *to have a neighborhood rich here, I think it's another generation concern, because only a few young emerge and return to rebuild the family home.*

Romeo Tenkeu, 32 restorer: *for changes in the neighborhood, it is necessary that people are less conservative and sell lands to investors. Anyway, I think in the next 10 years, they will finally sell, when they will finish selling lands that is in the valley.*

Mr. 59, carpenter: *If it was given to me to live somewhere in the city, I would live in the neighborhood Nylon (Djeleng), there are tarred roads, street are planned, and people are civilized. Here it is savagery, no real good house, if you go down near valley, the torch illuminates more than electricity.*

To the question of how climate change will affect the neighborhood Tougang in 10 years, I say that God says in 1 Samuel, Chapter 8 paid 7-18 that besides me God, if you choose kings, you will bear the curse. We must understand that it is important that it is God who rules, not us, that's why there are caterpillars in the fields, on corn cobs, parasites in yams, there are dead, sick.

Mme. 27 years. *As project for next 05 years, I plan to leave the country to go to the Equatorial Guinea or Gabon, because I have family there and because it could be that things work better over there.*

Figure 5: General view of Tougang Ville (density of houses)



Figure 6: Poor condition of a street in Tougang Ville



Figure 7: Land ownership issue in Tougang Ville



Kouogou'o village settlement report

Background

“Kouogou'o village” is an extension of urbanization in the Bamougoum village since the creation of Bafoussam by French colonists in 1925. As a patch of oil, urban growth initially confined in the said “Kouogou'o ville” area quickly spilled over land reserves of Bamougoum. Indeed, the War of Independence - known in western Cameroon as "maquis" - caused a massive influx of displaced people in the city. The populations of the villages in the Mifi therefore have converged massively in Bafoussam and settled in sites which will be called soon after as “Kouogou'o ville” and “Tougang ville” as opposed to the unoccupied area preserved by the villagers.

So, “Kouogou'o village” as “Tougang village” are the primarily rural areas of these settlements. There are therefore, theoretically, native dominant zones. However, such is not the case; the urban population has rapidly become the majority after the liberation of the land issues. Towards 1962-1972 the firsts displaced infiltrate Kouogou'o village instead of “Kouogou'o ville” already saturated.

Kouogou'o is originally a field dotted with termite mounds that were exploited by the Bamougoum. The first settlers were granted plots by gift or simply clearing. Indeed, during the war of independence, solidarity with the displaced began with a welcome home, and then donated the plots to empower the hosted. It was later that, as a sign of recognition, hosted was more or less required to pay a small fee in cash or in kind (20 liters of oil and salt). It's from 1980 that the purchase of plots is increasing with the valorization of prices.

The spontaneity of “Kouogou'o ville” was simply transposed to “Kouogou'o village”, with however, with a degree of spontaneity mitigated by semi-planned areas and sectors still maintaining the rural appearance; short, a sprawl characteristic of suburbs.

Dieudonné, 76: *When I entered this area in 1962, it was called "Noupegne"; That is to say, the place where were living angry people. It was during the period of troubles, this time called the "maquis". People fled insecurity in the villages to come and settle in the town. Initially, we asked the house to the people here, but at some point the owners of the houses in which we were housed asked to leave. It is from this moment that we began to look for a land where to build. Shortly after, Bamougoum indigenous told us that the neighborhood is called “Kouogo'o”; which means "the hill of winged termites."*

I had fled the troubles in Bafang to come to Bafoussam. Here I was security officer sent to spy on public works and detect of the presence of the guerrillas among employees.

Here is the procedure which allowed me to have my lot: My big brother who used to sell oil lent an oil tine to one of his Bamougoum friends. This one, failing to pay the sum of 4000 FCFA agreed, gave him land to build it. This is why my elder brother sent me to stay in his house he built there. When I started working, I had the courage to buy my land. I bought 23m / 28m at 12,000 FCFA. It is the owner of the field who sold the land.

Bopda, 60 years: *since I was the first born in a family of 9 children, and, my father, fearing that I may fall into the wrong things, sent me to come and stay here on his land. As a sign of redemption, I had to contribute on the “tontine” which he signed me, but it was he who was “harvesting”. Thus, I was able to pay back the money of the land before they seek a woman for me.*

Sindjou: *I bought my property recently 16m / 23m at 2,000,000 FCFA. And I was very lucky to find it. The price of land varies depending on the position, the use we want to do negotiations between the parts.*

Suh Roger: *This part of Bamougoum, for a long time, remained in the bush because the villagers were living elsewhere and farming here. That's when the city began to approach they began to sell, so that today there is virtually no indigenous seller of land, all are now resellers. Many people had even left the hills where we hid to get to the places where agriculture was practiced.*

Much of “Kouogou'o village” retains a rural aspect. Mud brick houses intersperse with farms and home gardens dominated by banana and fruit trees. Urban agroforestry is one of the great characteristics of the towns of West Cameroon. As from the 1990s, the density of concrete houses becomes important. However, one may well wonder whether the appearance of the houses necessarily reflects the level of income or household poverty. This question needs to be asked in the cities of the West. Certainly, poverty can be read broadly from the morphology of the frame. However, some mud brick houses hide internal signs of affluence like quality appliances. It may well be donations, but it must also be said that the quality of the house is not the priority for some. They concentrate productive investments elsewhere or sacrifice for the future of their children, either by negotiating competitions or sending abroad. These are long-term productive investments, moving beyond the comfort of home, at least for a time.

From an assumption of all owners, we have realized that the proportion of tenants is important. The lower housing cost attracts tenants. They can indeed get 02 modern bedrooms and a lounge at 15,000 FCFA. It's also a way for tenants to be informed promptly of plots for sale, care off a plot or supervise a project.

Access to services

Access to water is largely dominated by wells. Households that do not have well, are supplied from neighbors. The CDE water supply is present, but is yet to be a luxury only accessible to the middle classes scattered among low incomes. Development programs of the World Bank have allowed the creation of some drillings and the development of some springs to alleviate the drudgery of water. However, these efforts remain insufficient. The trade of drinking water is particularly flourishing. 20 liters of drinking water are sold at FCFA 25.

Wafu Berlin: *Generally, we drink the tap water here. The nearest well is far away. There are 02 points of sale of water in the area. During the dry season we are sometimes forced to get off at the source, which is in the valley when the cuts become recurrent.*

Dorianne Kenne: *we buy a can 20 liters at 25 FCFA. Sometimes the water comes with a red color. We drink water from the SNEC, we suffer from diseases such astyphoid.*

It is important to note that fetching water is particularly difficult for children who have it as their main domestic work. Yet it is not always sure of the quality of the water they bring due to the fact that the way from the place of supply to home is usually punctuated with steps of distraction that could contaminate the water collected in containers.

Sanitation is also deeply flawed despite the slope that facilitates runoff. Precisely the spontaneous occupation of space created cavities or small pools of stagnation on the road or in

the gutters that are often clogged with nonconforming crossings. Water runoff is often redirected to the ground because it is said that facilitates stripping the plots roadside. During the rain, the flow of runoff water is the easiest of waste disposal means. However, the activity of low-income households is such that waste usually returns in the fields often after transit barn.

HYSACAM collects garbage in accessible areas. However, irregular garbage in the bins arranged reduced the number of collection passages. It seems that the bins are discussed between pigs' food sorters, HYSACAM and composters. Toilets are usually semi-modern and modern. We can only regret the proximity of toilets, pigsties and well.

Cyril Diengue: *we mostly use semi-flush toilets. Regarding sewage, we pour into the gutter, but sometimes children playing for bulky items into the gutter; this has the effect of blocking the flow of water and this promotes the development of mosquitoes.*

Wafo Berlin: *personally, I do not sleep because of the mosquitoes that come from the ponds of water under my window. About garbage, we have garbage bins in the neighborhood. But some malicious people pour along the way. The schedule of HYSACAM is not known; they come with no fixed program.*

Cyril Diengue: *Also, farmers often dry feces of pigs roadside, which emits unpleasant odors in the neighborhood.*

Accessibility is the great problem of Kouogouo'o Village. Roads are constantly degraded by lack of maintenance and especially the behavior of households in spontaneous occupation as we have described in the preceding paragraph. A gutter deflected or barred because it facilitates the erosion of plots, crossing gullies improperly sized, building materials discharge on the sidewalk, etc., those are some user behavior that destroys roads maintenance efforts carried out both by the government and the people. Consequently, the motorbike is the only means to reach the settlement in any season. Prices do vary depending on the distance and road conditions. In all cases, a minimum displacement to the paved road cost at least 200 FCFA. The cars owners must file their vehicles in parking asset when weather conditions seriously jeopardize accessibility. At this point, even the motorbike is prohibited because of the risk of accident, and then everyone goes home on foot.

Access to electricity is also a problem. The voltage drop and the untimely cuts decried are exacerbated by the weakness or overload of existing transformers. The majority of people simply sublet. By subscribing to the neighbor, households pay 100 FCFA and 500 FCFA KW for rental counter. The sublease is an important source of voltage drop at night. Each household has a palliative to frequent power cuts. For example, the solar lights are acclaimed for their competitiveness in terms of cost, accessibility and efficiency. Very few have a generator.

Sindjou: *Electricity is a real catastrophe. Transformers explode here all the time. And it is especially during important events that it happens. We spent the holidays on December 31 and January 1 in the murky. It happened that I should deliver a baby with phone light. This is very serious.*

Bopda: *Recently we had a problem of circuit breaker here and people of SONEL have left us in the murky for a month. For this, my son almost failed his baccalaureate.*

Tiokou: *there were streetlights in this area during the election campaign, but it does no longer work.*

Cyril Diengue: *About electricity, here there is a contract, the other (13) households do with sub-meters. What makes the lines to be overloaded and this causes losses of aircraft that burn out. Here we charge for electricity based on the number of kilowatts each consumes.*

The telephone network is available in the neighborhood and knows the same faults as in other parts of the town. The internet is still a luxury that only exists along the main tarred road. The phone charging does not pose a problem when the possibilities of power cuts are anticipated.

Insecurity is also a major problem in Kouogouo'o-Village. This is just a new area for thugs who use to operate in Kouogouo'o-Ville. Their incursions are constantly decried in Kouogouo'o Village. All Kouogouo'o Ville and Village are compared by some locals as the New-Bell of Bafoussam. The inhabitants do not have the means to operate the self-defense committees continuously. They only come into play when criminogenic thresholds are far exceeded.

Among the services the most awaited, the inhabitants list first of all: the road, security, electricity, water and sanitation. Despite the fact that these services failed, the settlement is still attractive because of the abundant land market and affordability for low-income classes.

Sindjou: *Kouogouo'o Bafoussam is the equivalent of New Bell in Douala, is a hotbed of crime. Without deans and vigilance committees nobody could sleep because of highwaymen. The problem here is that the playrooms swarm and divert children to school. It's also a hotbed of prostitution, children are diverted and the government does nothing to address it. I even met the chief of the neighborhood to suggest they meet with the authorities so that we ban all these places of debauchery. Again, my experience as health clinic promoter allows me to see that demand Volunteers Pregnancy Interruptions grows exponentially.*

Suh Roger: *I blame in this situation a lot more media. TV channels have deviant scenes regardless of the time; this often puts us in indelicate situations.*

Dorianne Kenne: *relating to assaults, sometimes I hear people being attacked behind my house; and then they knock on my door shouting "Save me." I dare not open because I know that these are the bandits who organize this staging to enter people's homes.*

Mr. *One day too, while we were almost lying down, we heard the cries of people calling for help. But when my father came out, he fell on thugs who pursued him to the house. But luckily they could not enter.*

Livelihoods and mobility

In addition to the Bamougoum native, people come from inner-Bafoussam or directly from other villages and towns in western Cameroon. Some have experienced cities like Douala and Yaounde. All occupations are found in Kouogouo'o Village. However, traders in Marchet A and Marchet B and motorbike taxi drivers (Benskiners) are highly represented. A high proportion of people practice only agriculture (including livestock) in agricultural basins

in the Noun, Bamboutos and Mifi. Every morning, vans carry farmers at specific points of the town as "Total d'en-bas" or " Feu rouge marché B." This daily activity has been taken as an integral function of Bafoussam for decades. It faces mutations meriting further interrogations. Those city dwellers engaged in agricultural activities manage to meet their basic needs same as civil servants or traders. Transport conditions are very hard from the time they have to leave their house no later than 5:00 am and accept overloading in trucks and returning late at night. This implies sacrifices for the education of children and the need of the husband. Family life is necessarily reorganized when the woman exercises in peri-urban agriculture. Often, professionals in this activity already have adult children whose overload duty is to take care of their younger siblings. When the woman is not a widow and does not have the unconditional support of her husband, the stability of the couple is threatened by real or imagined infidelities for both. This suspicion also arises when married women who work have problems with their husbands. At certain point she must leave the job to save her household.

Since there is no motorbike station points in the neighborhood, to reach the workplace, residents at rush hour do not waste their time waiting. Most walk and even consider it as an obligatory sport the morning. It has also become a pretext motivating walkers. With such an exercise every week (round trip), the walkers say they do not need to practice sport on Sunday.

Another activity to be highlighted is that of city traders doing rural settlements markets. In fact, they refuel the rural markets periodically with manufactured goods. They use either their motorbike or specially adapted vehicles, whether four wheel drive or not. The proportion of households receiving transfers from Europe or from metropolitan areas is also significant. It seems clear that sending of children in Europe is not more only a matter of wealthy families. Poor families are also organizing themselves to send their children abroad, expecting that their success will be a source of income for the family. As in the case of New Bell in Douala, successful experiences and failures determine the commitment of families.

Cyril Diengue: *people are mostly small traders and farmers. The people move around a lot to cultivate the fields, some will spend more than a week.*

Dorianne Kenne: *people cultivate in the fertile villages and where there is space to cultivate. For example, we have Foubot, Mbouda Dschang and manyothers.*

Kessy: *many people use the feces of pigs and chickens in the fields as fertilizer to increase yields. As for traders, they sell either the market or in the neighborhoods.*

Benga Jacquet: *We recently had the first travelers who go to other countries such as Nigeria, China and others.*

Cyril Diengue: *young people leave early to go to the market and look for shoes and clothes that they are going to sell on that day.*

Man, 34 years: *I do the call box. I went to Europe in 1997 and I did 02 years in biology, then I did 08 years in medicine. Unfortunately, the 8th year I got sick and I was repatriated to Cameroon. A few years later I had a daughter. I get money from my uncles and my brothers who are in Europe. Apart from transfers I do not have other sources of income.*

Wife of 38 years: *I am a farmer, before that I was Bayam-Sellam. I'm farming since 2004 because it is more profitable. I have my field in Bati in the Bamboutos division and I spend for transportation 3000F. My field covers an area of 02 hectares and I farm with my mother. We spend 25000F for labor and harvest 02 tons of maize, 150 seal of beans and we use 10 bags of chemical fertilizer 100 bag of organic fertilizer.*

Male, 28 years: *I am a trader; I sell shoes in the bush markets. I travel every day in neighboring villages to sell shoes in the markets. Prior to shopping, I was an electrician. I changed my profession to improve my living conditions. But I practice electricity occasionally. I trade with my longtime friend.*

Cyril Diengue: *the problem here is that we are often late for appointments; it is not always easy to find the bike here inside. It is only when a benskin come to drop somebody else that we can leave the area. We pay 100 FCFA on the bike to get to the tarred road. When it rains, it nearly doubles. By Foot it takes 20 min. In the dry season, we suffer from the dust, and in the rainy season there is so much mud.*

Conclusion

Kouougou'o-Village is a rural area undergoing urbanization. Urban sprawl produces mixed landscapes where we observe social differences themselves sources of various solidarity. All services are to provide, in quality and in quantity, starting with the road, a police station, electricity, water and sanitation.

The neighborhood is however not less attractive. It would be promoted to bright future if the above services were improved. This is why people dream of seeing the main axis asphalted. This will remove from their mind the desire of living in planned neighborhoods like Djeleng and Tamdja.

Bamougoum woman 30 years

I always want to live in this neighborhood because I am comfortable. In 5 years I will always be in my house, unless I can afford to build in other areas. I think what raises the heat are the houses that are still built.

I left here in 1993. I live in Douala where I was selling second hand clothes. In Yaoundé, I sold peanuts in the wheelbarrow but the living conditions were not easy. The accommodation was expensive, nutrition as well.

After I went to Ebolowa, I stayed one year and I was selling clothes (second hand). And finally I got here and now I built m own house. Here I am in my village; my parents havegone.

Female 30 years: *I have a call box in Marché B, I walk and sometimes I take a motorcycle. Apart from the call box, I go to family agriculture field in Mbouda, I use 02 bags of fertilizer to harvest 10 bags of maize and 01 bags of beans. I go to the field 03 times a week during work period. When I arrive, I spend the night and come back 03 days after taking care of children and my husband.*

I regularly go to the village every week for ceremonies and to farm. I pay 700F for transport to go and I return with the food that comes from the fields. I receive transfers from Douala and Yaoundé from my brothers. (01-02 per year)

I sent some money to the village when there is a ceremony.

Figure 8: View of Kouogouo'o settlement (spontaneous, middle income area).



Banengo settlement report

Background

Banengo is an old planned neighborhood south of Bafoussam. It was created in the 1980s under the Master Plan of 1983. It is a subdivision developed to decongest the administrative center and house the middle and upper classes. This is an extension of the administrative district Tamdja. It lies at the foot of the hill housing the domain of the Presbyterian Church and the antenna of the Cameroon Radio and Television (CRTV). The first occupants describe the bush and fields of Fussep (Bafoussam) native village to which the district belongs.

Mr. Champlain Dzeukou, Professor of High School, living since 08 years: *when I arrived here in 2006 from Douala, I found that the area was drawn, airy, but access was not easy. The area is still quite populated, where it's nice to live anyway.*

Esso Aristide, a student 21 years: *it is a neighborhood with a lot of great personalities but who do not get along. You do not see the executive staffs in this neighborhood during the elections. They just put streetlights and after the election it does not work. Here in the neighborhood, there are no jobs for young people, that makes them take over games at random. Parents complain.*

Housing and services

Banengo is now a fully urbanized area, displaying an almost stable population shyly renewing by renting and heritage. The landscape present aged houses with permanent materials studded with some villas. The area hosts two technical high schools (Canadian Technical High School and Technical High School of Banengo) and several other educational and administrative infrastructures including an ENIET (Normal School of Teachers of Technical Education) and the regional offices of several ministries. In reality, Banengo was designed to relieve the administrative center and housing services that was renting in private buildings. So it's a second administrative center under development.

The teacher ratio is very high in this neighborhood. The tenants are as numerous as the owners. There are a lot of houses under construction that are dropped, either because their owners have been assigned elsewhere or died. The rental price is not high: 15,000 FCFA for a lounge with 2 modern rooms. Sometimes, some landlord rent their houses simply for maintenance. Such houses are located at the foot of the hill or in hardly accessible areas.

Marcelin Foka: *Beautiful buildings are on the roadside but in the inner neighborhood they are more modest. [...] The quality of the houses in this neighborhood does not necessarily reflect the level of people's lives.*

Esso Aristide: *I think they have destroyed many old houses to build new storey building. This neighborhood has been quite renovated. The trees that use to block the view have disappeared.*

Access to water and electricity is satisfactory. Only low incomes scattered in the neighborhoods do not have. However, the sublease subscription to electricity is relatively high compared to the standing of the neighborhood. These arrangements have been negotiated over the past two or more decades. Since one part does not denounce the terms of the sublease is not a problem. The subtenant pays FCFA 100-150 per KW.

Elias, Professor of High School, living for 10 years: *some sell 20l of water at 25 FCFA. Those who cannot buy, break pipes to stock. From my experience I can say that the quality of the water is good in the city of Bafoussam, but it is not available to the many.*

Kengne Denis, 19, student: *there is the SNEC here, but everyone does not have access.*

Kweumo Emmanuel, 22, unemployed: *therefore, we often break the pipes to have water.*

The road and insecurity are the most defaulting services in the neighborhood. Regarding insecurity, the neighborhood was a famous place for thugs who committed their crimes on the hill and in the many abandoned houses. Since 2012, repeated actions of ESIR (Rapid intervention police) have restored peace and tranquility in the neighborhood to the point where people are no longer facing insecurity like in the past. However, they fear a loosening of custody of ESIR, synonyms of return of muggings. That is why they are urging a police station.

Elias, Professor of High School, living for 10 years: *apparently you think it is the most beautiful area but it's scary actually. It is because of insecurity, here lived the greatest villains of the city, but through self-defense, we could reduce the number of rapes, assaults and robberies.*

Denis Kengne, student 19 years: *I remember particularly assaults and bandits being killed almost every day in this neighborhood.*

Essomba Christian, 25, a teacher in training: *I think the problem of bandits has decreased for some time. We no longer hear of bandit killed. Averagely one bandit was killed after two days in the past. They were bandits from neighboring settlements.*

The road is the first problem. Well materialized on maps and satellite images, roads in reality are not accessible. From the moment they have to pass on the slopes of the hill, they are subject to intense erosion, creating gullies in the middle of the roadway. Consequently, the motorbike and walking have become the only means of reaching the paved road: from 100 FCFA to 200 FCFA according to the distance to cover in the neighborhood. Here at least, the overload is not the rule like it is the case elsewhere. It seems that the status of the residents is the reason why motorbike taxi drivers do not overload more.

The road condition is aggravated by the fact that the garbage clogging the gutters. Yet Hysacam made the effort to pass 03 times a week and disposed garbage bins, but some inhabitants still claim that they are far apart.

Banengo remains attractive because it is located on the south edge of town and hosted a large number of administrative and business services. That is why the renting rate is very high. However, the land tenure is renewed very slowly especially as new sales plots are rare.

Livelihood and mobility

Banengo is mainly composed with middle and upper classes. It was so planned since the creation of the neighborhood. The first occupants are civil servants who haven't plots at Tamdja. Businessmen appreciate Banengo for its proximity with commercial center and its extensions at the exit of the main road of the city. Another proportion of residents are coming from metropolises Douala and Yaounde.

Champlain Dzeukou: *Here, there are more teachers because the neighborhood is near several public and private schools. Apart from them there are traders, businessmen; by a certain time big cars will start scrolling.*

Essomba Christian, 25 teacher training: *it is the rich chick who are the most numerous. If you come earlier you would have seen the big car brands.*

Fotso jeans, 19, unemployed: *I think the situation is mixed. There are poor and rich men.*

Mr. Elijah, *since the residents are for the most part farmers, they almost never leave free space without cultivating. No mayor cannot prohibit Bamiléké grow even in the yard and roadside. This is what often facilitates attacks.*

Mr. Champlain Dzeukou: *I notice that many people cultivate roadsides, which promotes the development of mosquitoes, which causes malaria. In addition there are people who practice cattle farming that gives off strong odors. But we understand that these people are in their village.*

Marcelin Foka: *there is electricity here especially in the dry season problems. We even spent some holidays and New Year in the dark. But in the rainy season there are no major problems, except power cuts. This causes loss of device, children cannot read easily. In addition, even during the day, we see that brownouts prevent independent workers such as welders from working.*

Conclusion

Priority services for inhabitants are first of all, the road that should be tarred and constantly maintained; the security, thus the creation of a security station and public lighting, a health center and a bilingual school. According to residents, only the asphaltting of the main road will restore luster to the neighborhood in the next decade.

Owner installed for 10 years: *With regard to waste, I have a seal of trash (seal paint Pantex) and we will pay the crossroads to the ground, and just pick Hysacam daily in the evening, but they do only in our industry because there is a garbage dump there next Hysacam but did not realize. In terms of electricity, I'm connected to the SONEL network, we have our meter. Here I do not have a voltage drop but we also have some problems with power cuts. Invoices generally amount to 10,000 or 15,000 FCFA. At home I have a fridge, TV and a few small appliances household.*

In my neighborhood, I love that it suits the road. As for the other services we think Hysacam must improve the quality of service and browsing the entire neighborhood.

65 year old woman in the neighborhood for 32 years

I have been in the neighborhood for 32 years. When I arrived, there was not enough housing, just a few locals. What I like about the area is the proximity to the infrastructure of basic necessities (schools, market, and road). What I dislike is that there are too many power cuts (for two weeks no light), insecurity, mud and dust sometimes. When there is power cut, I charge the phone from a neighbor and I use the torch on the phone to help me in the night.

I have a CDE connection, in case of breaking, I draw from the well for washing clothes and dishes and reserves for drinking. I sometimes travel to visit children out of the town. I have a small business (sweet, bread and fritters). The children send me money to meet some of my needs. I'm home, we are both my husband and me, the children are grown and working elsewhere. I do the cooking with gas and firewood bought. This wood is more expensive compared to our arrival; meanwhile the price of gas does not change. I do not participate in associations because they are cults.

We receive lessons in the living kingdom because I am Jehovah's Witness; association outside the Kingdom Hall is considered the sect.

Residential mobility and activity of a household: *I was born in Bafoussam and we live in this neighborhood for two years. We came to settle here because we had found a slightly larger house. We arrived in the city in 2001 from Yaoundé. We first lived in Madelon because it was small and my mother had just given birth. The second house was still in the neighborhood near "Gabon Bar" but we moved because the landlord was a criminal (bad), when he left to go to work he would cut the light, and when he returned, he then plugged the meter so that during his absence you could not do anything.*

[...] We still have two months to live here as we will go to "Stade" because we are building there.

What is good here is that there is no aggression ... We are renting a house with two bedrooms and a living room a store we pay 11 000 FCFA / month. We are 06 to live all the year long ... I am Bamiléké and I get the support money by express-union of my daughter who is secretary in Gabon. I do not cultivate because I'm not from Bafoussam. I often move out of this town to the village to accompany those who died and when there is a wedding. But I cannot go to the village to stay; this is not because I have no grandfather or grandmother.

When I take the bike, I say Lord save me, besides the bike killed my pastor recently. For me if we could ban motorcycles I would agree. So we do with what we see before us.

In 05 years I will live in Gabon because I've heard that there is money there. Here, for example, I have long been maid and call boxer but the pay was lousy, while my daughter said that in Gabon, services like these give good money.

Figure 7: View of Banengo (extension towards the periphery)



Ghana: Accra settlement reports

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Settlements studied in Accra

Neighbourhood/ Settlement	History	Location	Income-level	Rate of population growth	Remarks
Korle Gonno	Indigenous/traditional settlement	Western edge of centre	Low-income	Stable overall though movement in and out	Stable population size but movement in and out. Poor services.
Accra New Town	Migrant settlement established 1940s, mainly Muslim	Northern edge of centre	Low/middle income	Shrinking overall though movement in as well as out	Residential being converted to commercial; subdivision of existing dwellings.
North Labone	Planned area built by colonial administration in 1950s.	North western edge of centre	Middle/high income	Growing in size	Considerable infilling taking place.
Gbawe	Indigenous core, growing rapidly since 1990s	Western periphery	Low/middle/high income	Growing rapidly	Well-functioning land market with astute chief.
Ashale Botwe	Indigenous core, growing rapidly since 1990s	North eastern periphery	Low/middle/high income	Growing rapidly	Caretaker chief, some land disputes.

Settlement Summary: Korle Gonno

1. Background

Formerly we were not many in the town so everyone is able to do something good, but now you look at where the Ga' are settling now, they are rather settling in the villages and then strangers are the ones settling here...Our house had a big walkway where people could pass freely but now it is not there. Now they give out land to strangers who would give them something, whilst we the locals need the land. We used to play football on the vast land but after the old man died, they have sold some of the land. People put kiosk on it (Participant male elders focus group).



Figure 1: Expensive multi-storey renovation

Korle Gonno is an indigenous, low-income settlement located along Accra's coastline and next to the Korle Lagoon. Older residents explained how the settlement began as a small fishing and farming village, and described how the settlement was once known for its well thought out site planning and architecture. This is in sharp contrast to Korle Gonno's reputation today, with the area increasingly characterized by overcrowding and infilling, declining municipal services, and serious concerns regarding environmental sanitation. Alongside these changes to the built environment, the settlement's demographics are also changing. The 2000 Census registered 27,826 residents and by 2010 this had reached 30,555¹. This is due to both in-migration and natural increase. Importantly, although the majority of residents are of Ga ethnicity, migrants from a variety of Ghanaian ethnic groups are now increasingly populating the area, as are international migrants. Meanwhile the indigenes are moving to Accra's peri-urban locales, such as Gbawe and Madina.

¹ Ghana Statistical Service, 2000 Population and Housing Census; Ghana Statistical Service, 2010 Population and Housing Census.

Korle Gonno's growing population alongside changing macro economic conditions has had an impact on land use. For example, older single-storey buildings made from mud are being renovated and turned into expensive multi-storey concrete structures, particularly along the coast, which is now considered prime real estate. Moreover, what was formerly a well planned out built environment is becoming more densely populated and spatially disorganized. This is particularly noticeable as one moves away from Korle Bu Hospital and the commercial districts found on Guggisberg Avenue, towards Old Winneba Road via the residential areas. In some cases buildings are only separated by paths large enough for an individual to pass through, which as well as being a health hazard, also prevents emergency services from being able to reach residents.

The issues outlined above connect to the central land concern in the area, namely that demand for land in Korle Gonno outstrips supply. There is currently a scarcity of land available for the development of key services, infrastructure and recreational activities, because although historically landowners have opted against selling their plots, some are now keen to take advantage of rising land prices and rental rates by either selling plots or extending their properties to accommodate more tenants. Although those from within the community rarely contest land ownership- as land and associated properties have often passed through multiple maternal lineages- disputes are becoming more common as economic transactions over land increase in frequency. Land is administered through a dual system, involving the Ga traditional authorities and the Lands Commission.

2. Housing and Services

You say are going to someone's house, [but] you will ask does a human being sleep here? You will be surprised. People sleep in small rooms which are supposed to be meant for animals, but because you do not have money to hire a better place to sleep you will sleep in it like that (Participant male youth focus group).

The houses here were mostly mud houses but now we have blockhouses, self-contained. However, our children do not have a place to play because our parks have been taken away... also because of the concentration of buildings, the fire service have problems putting out fire when there is fire. They have no route to use to get to the house on fire. The AMA must do something, even if they are to demolish some unauthorized buildings (Participant female youth focus group).



Figure 2: Example of low-income housing

The above-mentioned challenges associated with changes to the built environment, alongside the availability of and ability to access land, influences housing provision in Korle Gonno. Similarly to other parts of the city, single rooms and compound houses can be found throughout the settlement, however, Korle Gonno also contains some architecturally unique multi-storey buildings that were constructed by Ga elites and wealthy female merchants. Unfortunately, many of these buildings are now in a dilapidated state and in need of renovation, which is also true of the majority of housing stock in the settlement. The vast majority of land used for residential purposes are owned by indigenous Ga families. On one hand, residents explained that this alleviates issues around security of tenure, as many residents are either long time owner-occupiers themselves, or a relative of someone who is. On the other, rising land values and rental rates have resulted in disputes between family members over land ownership becoming more prevalent.

Compound houses vary in size and can contain as little as five or as many as twenty rooms. In the past, mainly family (including extended family) members would reside at the compound. More recently, one or two family members remain at the property and act as landlord, and the remaining rooms are rented to private tenants as a means to generate an income. Thus many tenants in Korle Gonno live within the same house as their landlords, with residents explaining that this can have implications for their access to services. The ability to generate an income through rent, coupled with the challenges associated with accessing land, has resulted in property owners attempting to maximise economic returns from the space available to them e.g. by turning facilities such as bathrooms and kitchens into rooms to let (discussed further below).

As is common in the Accra rental market, tenants are required to pay for their accommodation as many as three years in advance. Importantly, while this arrangement provides landlords them with financial security, it places a considerable financial burden on prospective tenants. With a single room without access to a toilet costing approximately

30GHC per calendar month, this equates to a potential outlay of just over 1,000GHC. This additional income from rental agreements are often used by landowners to purchase plots and build properties in other parts of the city where it is cheaper for family members to stay, but indigenous residents argued that this was destroying traditional family values and structures.

One of the ways people overcome challenges associated with accessing affordable housing is to cohabit with extended family members. For example, it is not unusual for an entire family consisting of a mother, father and three to four children to rent a single room with a sibling or cousin of working age to help cover costs. Problematically, this situation leads to overcrowding and its attendant problems such as poor ventilation and easier transmission of infectious diseases. Moreover, having received payment for a room several years in advance, there is no incentive for a landlord to address any deterioration in the condition of the accommodation provided. Given that many of the houses in the settlement are over 60 years old and in dire need of structural repair, this situation leaves tenants both susceptible to declining living standards and liable for remedying them if they are dissatisfied. A second way people overcome challenges associated with accessing affordable housing is to rent a container, which can be used for their economic activities during the day and a place to sleep at night. Finally, squatter housing is becoming more widespread in Korle Gonno, with both indigenous Ga and migrants building makeshift housing in between buildings and on land often owned by absentee landlords.

Water

During my childhood days, when they rush to Korle-Gonno they get water. But now we don't even have water here. If someone works from Monday to Friday and has to wash on Saturday, the person will suffer before getting water to wash (Participant female elders focus group).

The majority of houses now have infrastructure capable of providing water via a pipe connected to Ghana Water Company Limited. It is important to note that the presence of pipes and infrastructure capable of providing water does not necessarily equate to the ability to source water. For example, at the time of data collection, participants complained that water had not flowed through the pipes at weekends for several months without a clear explanation from the water company. Moreover, landlords often place locks on taps and charge tenants for sourcing water in addition to their rent. A standard bucket typically costs between 5-10 pesewas, while a larger bucket suitable for bathing can cost as much as 20 pesewas. Concerning the issue of quality, when the water does flow it is foamy in nature and emits an unpleasant odour. If consumed without treatment such as boiling it causes stomach upsets and other water related illnesses. This water is, therefore, primarily used for laundry and bathing.

Residents highlighted several strategies to manage issues concerning water access and quality noted above. Treated 'sachet water' is purchased from local vendors. They come in two sizes; small 500ml bags that can be purchased individually for between 10-20 pesewas and a larger sack containing 30 sachets that costs between 2.80-3.00GHC. Sachet water is primarily used

for drinking and cooking. Rainwater is also collected and used for bathing and laundry, but is only consumed as a last resort and after being boiled. In situations where there is no pipe in the house or a pipe cannot be accessed, water is also sourced from private vendors. Problematically, residents complained of sharp price increases, with the cost of a bucket of water having risen from 5 pesewas to 15-20 pesewas. This is in part why the issue of illegal tapping of water is rife. Tapping, which usually occurs at night, reduces water pressure thus hampering access and availability, and in some cases affects water quality.

Toilets/sanitation

It is not everyone who has a toilet at home. Me for instance I have toilet in my house so I do not think I can go to the gutter to ease myself over there, I won't do that but there are people who do not have toilets at home. When they wake up in the morning, they do not have twenty pesewas, thirty pesewas to pay for this toilet and maybe the youth do not have money, they do not work so what will they do, they will go to the gutter (Participant male elders focus group).



Figure 3: Public-private toilet facility

Access to adequate toilet facilities and sanitation services is a long-standing problem in Korle Gonno, with the majority of residents relying on public toilets and in some cases defecating in buckets and polythene bags (waste is then thrown into the gutter or garbage containers). Residents argued that government policy requiring all homes to have at least one toilet, which was introduced in the mid 1990's, had not led to a noticeable increase in houses with toilets. Rather the issue of inadequate access to toilet facilities has become more pressing in the last decade. This has coincided, somewhat ironically, with Korle Gonno's beach becoming the recipient of the city's liquid waste sludge and the emergence of what is known as 'Lavender Hill'.

Open defecation is a structural problem, in that the absence of a sewer network has left residents with two legitimate options for accessing toilet facilities; an in-house toilet usually in the form of a Kumasi Ventilated-Improved Pit (KVIP) or Water Closet (WC), or a public toilet. In reality, the majority of residents only have access to the latter. An individual compound house may have anywhere between 5-15 households or more living on the premises, and although some landlords allow tenants and neighbours to use toilet facilities for a fee, in many cases it will be kept locked so that only the landlord and their immediate family can use it.

Residents explained that in many cases, landlords had initially allowed tenants access to the onsite toilet facilities, but stopped doing so due to costs associated with maintenance e.g. the issue of water supply and who will pay to dislodge liquid waste. Public toilets therefore become the only viable option for most residents. This is problematic as the fee is often prohibitive. Moreover, the fact children and adults are charged the same rate is an added financial burden to families (typically 20-30 pesewas pre visit), has resulted in parents encouraging their children to engage in open defecation, so the money saved can be used to purchase food and pay bills.

Electricity

We had postpaid meters and even if you do not have enough money, you can pay part of the bills and still have light. Sometime later they brought meters that you need to purchase before we get light. When you buy units it does not even last long. Now we see that the old one is far better.

The majority of homes in Korle Gonno are connected to an electricity supply, albeit in some cases illegally. The settlement, however, is subject to what is colloquially known in Accra as ‘light off’ i.e. intermittent power outages as part of the broader energy supply management at the city level. In a typical week, electricity is unavailable without warning on four to five occasions for varying lengths of time. The lack of warning is particularly problematic as the sudden withdrawal/return of power damages electrical items that are plugged in and can. Furthermore, losses of power lead to food items stored in fridges and freezers becoming inedible thus resulting in additional expenditure on food.

The most pressing issue concerning electricity is the introduction of ‘prepaid meters’ to replace paying monthly bills. Previously, a monthly bill would be sent to the property and the occupants would attempt to divide the costs between themselves (region of 20-40 GHC per month per house). This was often decided according to the electrical items one’s disposal (i.e. those with more paid more). A notable problem with this system was that regardless of service quality, customers were always charged. Yet the monthly billing cycle was popular because provided the bill was met, the company would provide power when able to. In contrast, the ‘prepaid’ system requires consumers to preload a card with credit in order to access electricity. The main problem with the new charging system is that it is considerably more expensive than monthly billing - two to three times more. It is also more difficult for families and home-based enterprises to budget, as they are unable to predict when their credit will finish. In a context where many residents live in compound houses with other families,

this has led to disputes over who should reload the card when the credit finishes and power is suddenly cut off. Residents would much prefer prepaid meters to be allocated to individual household units.

Voices from Korle Gonno: Housing and Services

I have a child and before I wash his things I need to roam about for water. Now too, the water has been increased too much. A bucket is now 20 pesewas. Previously a bucket was 5 pesewas so they should have increased it to about 15 pesewas, but now it's 20 pesewas and others (Participant female youth focus group).

We did not pay at first but now if you don't have money they will sack you. Even children are not allowed if they don't have money. Sometimes when our children wake up and they ask for money for the toilet, we sometimes don't get the money and if you tell them to go and ease themselves somewhere around the house, they get caught (Participant female elders focus group).

The toilet and garbage situation is now a real bother. At night, you will see people with black polythene, they will drop it around secretly and when you go to check it, you will see that, it is garbage. The black polythene bags are really bothersome (Participant male elders focus group).

Where I stay, we have a bathroom but I don't use it. My child and I go to bath at a public shower and we are charged 80 pesewas. So if we don't have 80 pesewas we can't take our bath which is really a problem (Participant female youth focus group).

Very soon we will have to keep the rubbish in our rooms because the owners of the land where we deposit our refuse are claiming their land. Moreover, rubbish containers have been introduced whereby we deposit our rubbish for it to be picked by a truck on planned days. They sometimes don't collect the rubbish on time but they come to take the money regularly. Also, when they realize you have toilet in your rubbish they will charge you extra (Participant female youth focus group).

Previously 5 cedis can be enough for your family for about three days but now 5 cedis is not enough for even a day. Moreover whenever your prepaid credit is exhausted you run into a negative balance and when we enquired, we were told that we still owe on the old meter. But I am wondering if up until now, they are still not done deducting it from our credit. For me, if they should ask us to demonstrate against the new meter I will do it (Participant female youth focus group).

3. Livelihoods and Mobility

Fanti' are amongst us, Ewe' are amongst us, Hausa' are amongst us but it was not like that at first. Korle Gonno was made up of only Ga' but right now it is all tribes, others are coming to Korle Gonno (Participant male youth focus group).

There are uncompleted buildings but they lease it to strangers whilst we the people here need it. We do not understand. So we the town's people take huge sums of money to purchase houses elsewhere (Participant female elders focusgroup).

As highlighted in Section 1 above, the Ga ethnic group primarily populates Korle Gonno. In the last decade, the settlement's population has however become more ethnically diverse, with individuals and families originally from different parts of the country (e.g. the Central, Ashanti, and Eastern Regions) seeking accommodation in the area. This is largely due to Korle Gonno's combination of good transport links to key commercial centres and relatively cheap accommodation rates. Importantly, Korle Gonno's emergence as a migrant destination is linked to the housing dynamics mentioned above, which in turn has implications for residential mobility out of the settlement. As landowners attempt to maximise economic returns from rental income the ratio of tenants to family members is changing. The additional income generated through rent is often used to purchase land and or build properties in other parts of the city where it is cheaper to house extended family members, with Kasoa, Dansoman and Gbawe highlighted as popular destinations among the Ga community. This creates a scenario whereby wealth, and to some extent educational attainment, plays a key role in determining the mobility of the indigenous community, with poorer and less well-educated residents often lacking the social, educational and financial capital to move to areas with better quality municipal services.

Income-generating activities

For those of us in this place jobs are had to come by. We face lots of problems. People do not go to school and we do not have good jobs here. Also, when you need a job and you tell them you are Korle Gonno, they will not employ you. Oh yes, they will tell you to go and come (Participant female youth focusgroup).

Formerly, people worked as carpenters, plumbers, painters, masons. Those times, they were really good at their work because, they really practiced well. There was food at home and so they just did their work and received their pay. They do not do lots of thinking like we do now (Participant male elders focus group).



Figure 4: Food provision store

On the surface, Korle Gonno's local economy functions in a manner similar to other parts of Accra, with informal sector economic activities such as selling fast-food a prominent feature of the landscape. Alongside cooked meals, containers selling provisions and beauty products are highly visible, as are mobile phone credit kiosks, hair salons and sachet water stands. The female population primarily undertakes these income-generating activities, while their male counterparts typically earn an income as drivers, timber merchants, electrical repairmen, mechanics and through petty trading. The uniqueness of Korle Gonno's local economy lies in the spatial distribution of activities, with key economic hubs often located alongside key transport corridors. As mentioned above, Guggisberg Avenue and Old Winneba Road are the key transport corridors, while the area around Korle Bu Teaching Hospital, the Tuesday Market and the beach is where economic activities tend to congregate. Residents were keen to stress that while Korle Gonno's Tuesday Market remains one of Accra's most high profile official neighbourhood markets, and is an important trading centre for the Ga community, it is need for major upgrading. The facilities have deteriorated to such an extent that stalls are frequently left empty or used as storage space, with traders preferring to conduct their business outside on the nearbystreets.

Beyond these major roads, Korle Gonno's well-planned street layout contains a number of demarcated feeder roads and residential side streets. Although economic activity along these roads are less intense, it is often here amidst the residential areas that home-based enterprises (HBE) are most prominent, and they are also an important source of income for residents and a key component of the local economy. Nevertheless, it is important to note that unemployment, especially among youth, is a major problem, with many highlighting that their affiliation with Korle Gonno works against them in the wider labour market. This is in many ways an outcome of the areas' historically low educational attainment levels, however, the issue of youth unemployment is compounded by the rise in teenage pregnancies and substance abuses. Local initiatives have been created to address this problem, such as vocational training centers offering mostly in secretarial services, seam stressing and

cosmetology, and apprenticeships in carpentry and other manual professions. Moreover, male youth are attempting to create their own job opportunities e.g. as Okada drivers (moto-taxi) and as garbage collectors for Zoomlion, problematic the latter often goes unpaid.

Service availability and income-generating activities

There is no borehole, even when you try to get water from other sources, people will say you collected ground water for cooking so they won't buy your food (Participant female youth focus group).

For the water issue the cost is really killing us. I have to fetch water about 5 cedis for my work because I have to boil the kenkey and fry the fish all with water. I for instance, I can't carry the water so I need to ask people to do that for me and that is an extra cost. Something must be done about it (Participant female youth focus group).

The challenges associated with accessing services such as water, electricity and toilet/sanitation facilities as highlighted in Section 2, negatively affect income-generating activities in Korle Gonno. For example, those engaged in the selling of fast food often rely on water to cook and prepare food. Problematically, issues around water quality means that they are reliant on treated sachet water, which is more expensive than water sourced from a pipe or bore hole, and therefore reduces potential profits. In the case of electricity, residents are facing the twofold issue of poor availability and rising costs linked to the introduction of prepaid meters. At best, this results in a marginal reduction in profits. At worst, it can lead to an inability to trade and a loss of custom during periods when the meter has not been topped up. This has altered the economic playing field as poorer business owners now lose customers to those who can afford to keep their prepaid meter topped up, whereas in the past a loss of power typically effected the population at large. Moreover, the loss of power damages electrical items such as fridges and freezers, and can result in stock going to waste.

The economic impact of sanitation on income-generating activities is often indirect, but still very real. Female residents explained that as well as being the main breadwinners they were also required to take care of childcare and household duties. Given that a large proportion of the population lack access to toilet facilities in their homes, funds that could be used to support a business are sometimes diverted to pay for children to use public toilets. Moreover, fees associated with accessing a toilet also result in people, especially females, trying to avoid using the toilet for long stretches of time, or in moments of urgency either entrusting their business to someone while they use the toilet, using a polythene bag, or ceasing their economic activities while they go to the toilet.

Mobile phones, which can usually be charged both at work and at home, have helped mitigate the issue of having to temporarily leave one's business (not just for the toilet), as they enable customers to contact businesses owners and find out when they will return. The mobile coverage in Korle Gonno, which is deemed comparable to other parts of the city, suffers from common issues such as random signal loss, and dropped calls. Residents often own multiple simcards to overcome signal losses and reduce costs, as it is also more expensive calling

cross networks. They were however keen to stress that there are far more pressing issues facing the settlement.

Urban transport, mobility and income-generating activities

When you are in Korle-Gonno you can get car to any part of Accra, it is very easy... I use a motorbike but sometimes when maybe the supply is that huge and the motorbike can't carry then I have to hire a taxi (37-year-old salesman, native of KG).



Figure 5: A variety of transport options

Private car ownership is slowly increasing in Korle Gonno, however, this mode of transport is beyond the financial reach of most residents who primarily rely on public transport in the form of trotro (informal minibuses), private ‘dropping’ taxis, and more recently motorbike taxis known as Okada. Trotro provide good connectivity to other economic hubs in the city, with traders travelling to central Accra early in the morning (4 am onwards) to purchase supplies, while at the same time commuters working in Korle Bu and on Guggisberg Avenue travel into the area throughout the day. Importantly, trotro and private taxis cannot avoid, and their usage actually contributes to, the problem heavy traffic, which is one of the key reasons why Okada motorbike taxis have grown in popularity among male youth keen to bypass congestion.

The challenges associated with moving in and out of the area are incorporated into the income-generating activities of poorer residents engaged in petty trading, and the selling of provisions and fast food in Korle Gonno itself. Where possible, residents try to reduce

transport related costs by generating maximum returns from minimal movement. This is achieved by for example focusing economic activities around the local Tuesday market, working within the settlement (HBE discussed above) or within walking distance from home to reduce one's own mobility time and costs, and locating economic activities as close to the roadside as possible in an attempt to profit from the mobility of others as they pass by. These strategies are more pronounced amongst Korle Gonno's female residents, who have to consider their child care duties as part of their broader mobility and income generating strategies.

For the non-indigenes, trips beyond the city boundary to visit family and conduct business in rural areas and or other regions are avoided as much as possible due to the long and often uncomfortable journeys involved, and the financial pressures associated with visiting relatives. In many cases, rather than visiting families in person, residents will send gifts, money and goods via bus drivers. This is argued to be much easier to coordinate now that mobile phone use is more widespread.

Voices from Korle Gonno: Livelihoods and Mobility

In Korle-Gonno there are some things that disturb us a lot. We thank the people for the vocational schools that have been built because they have done what they were supposed to do. Right now things have changed in Korle-Gonno. It shows that the right now things are not as they used to be. That is what I want to say (Participant male elders focus group).

Please because we do not get jobs, most of the youth here claim they work at the mortuary and they become drunkards and weed smokers in no time. If you stay in the house with your little brother, by the time you realise he has changed completely. Even the kenkey, people no longer sell it because, the maize has become very expensive. Gas has also been increased. Now Zoomlion is becoming more dominant (employment) but even that one they don't pay the people (Participant female youth focus group).

I also do not have anyone to cater for my child. So when I get a job like that, I need to get someone to take of my child. I need to get something for the person and I need to get money for my child as well and since I do not have that money, I would rather sit at home. So if they will get us jobs, they should get us one that does not take so much time and pays regularly (Participant female youth focus group).

With the men what they mostly like at this place is playing football, but what I have noticed is at first the women at Korle Gonno were traders, petty traders but right now the women at Korle Gonno are civilized, they have gone up to tertiary and some are going to the government sector (Participant male youth focusgroup).

Also some of us whose husbands and brothers work at the government side quit because there are cases where they work 3 to 4 months without pay so they quit and when they go in search for other jobs and if they tell them they are from Korle Gonno they are not employed. If you decide to change your appearance too and they find out, you can lose your job (Participant female youth focus group).

With the water issue, formerly even if the pipe stops flowing in the morning, by afternoon time, it will flow but now, it's like it constant that the pipe will stop flowing on Friday and flow again on Saturday evening or Sunday. So people who go to work will sometimes choose not to go on Friday so they can wash. Also, formerly even if the water does not flow here we are able to get water from Korle Bu but now, we don't. Some doctors do not even get water. At the time is gave birth, they carry water from houses to the wards (Participant female elders focus group).

Before we were using analogue but now we are using digital. The digital gives us problems because before you realise your meter will be off. You have units but if it goes off and when you go and report it will take about two or three days, and when you work in the government sector you have to iron your dress for work and if the problem is not solved you have to go to your neighbour for help. He or she will also think you do not have money to buy units but maybe it is not like that, the digital meters are giving us problems so if the government will like to recall the analogue for us we will be glad (Participant male youth focus group).

Some of the roads have been tarred and others are not so when the cars speed by, the dust and weeds really bothers us they enter the gutters as well (Participant female elders focus group).

4. Future Challenges

- Youth unemployment is a major problem. The prevalence of drug abuse and teenage pregnancies has been linked to a lack of employment opportunities. Vocational training opportunities are available but places are limited and expensive. There is a demand for affordable tertiary education and vocational training institutions.
- The Tuesday Market place is in need of significant upgrading. Residents view the market place as holding symbolic as well as economic value to the community.
- Residents identified several facilities and resources that are currently lacking in Korle Gonno. The three most frequently highlighted were; recreational spaces that can be used for sports activities and general amusement; publically funded secondary and tertiary education institutions; and a library providing access to newspapers, books and information communication technology(ICT).
- Overcrowding is already an issue facing many residents, especially those living in rented accommodation. If this goes on unchecked, the problems commonly associated with overcrowding in low-income settlements are likely to become more pressing.
- Although far from ideal, access to services such as water, electricity and toilet/sanitation facilities are not causing people to move out of Korle Gonno. This is because the majority of residents cannot afford to relocate and live in the area because of its relatively cheap accommodation. Those with the means to leave the area generally do so, with poor access to water and sanitation often given as a reason. Key services are in need of upgrading, and the priority for such improvements are as follows:

1. Toilet/Sanitation: there is currently an over reliance on a limited number of public (charged) toilet facilities and the many residents cannot afford to use these services resulting in increased instances of open defecation. The government should provide more assistance to those attempting to comply with the 'one toilet per house' policy initiative, however residents were keen to stress that presence of a toilet at a property does not equate to access. Connected to this issue is the lack of sewer network.
2. Water: residents are keen for the introduction of a system capable of providing a reliable supply of treated water that makes use of the existing infrastructure i.e. water should flow through the pipes and landlords should not lock taps. The unavailability of water over the weekend is major cause of frustration.
3. Electricity: the introduction of prepaid meters is the main issue concerning this service.
4. Local Transport: the settlement has good transport links to other parts of the city but due to macro economic challenges (increasing petrol costs), the rising price of trotro and taxis is placing a strain on income-generating activities and reducing profit margins.
5. Mobile Phone Signal: the signal quality is comparable to other areas of Accra and is not a major area of concern.

Settlement Summary: Accra New Town

1. Background

'Before getting a land in this place was very easy. It was in the hands of a man who gave the lands to anyone who wanted to buy the land... now it is difficult to get a land because the place is already choked... there is no space to sell unless it somebody's own house or land who has decided to sell it' (Participant male elders focus group)

Accra New Town is a low-income settlement located on the northern edge of central Accra. Established during the 1940s, New Town had the highest population density in Accra by the 1980s (370 people per hectare), and while it still exhibits physical signs of this legacy in the form of intense infilling, recent census data indicates the population is declining. In 2000 the population was 45,130, a decade later in 2010 it had decreased to 31,363¹. This decline in population is partly attributable to changes in land use, most notably the conversion of residential properties into commercial spaces such as retail outlets and printing presses capable of generating higher rental income.

The conversion of properties from residential to commercial use is primarily taking place alongside the main roads where economic activities predominate, and it is mainly here that older single-storey buildings made from mud are being renovated and turned into multi-storey concrete structures. The built environment in the more densely populated central areas are also undergoing change, however, the modifications taking place in these areas are occurring at a slower pace and at a smaller magnitude than by the roadside. A key reason for this difference is a lack of space between properties as residents attempt to build on all available land. In some cases buildings are only separated by paths merely large enough for an individual to pass through, which as well as being a health hazard and preventing emergency services from being able to reach residents, also limits the potential to undertake substantial renovation work.

The issues outlined above connect to the central land concern in the area, which is that there is currently a scarcity of land available for development as the majority of plots were purchased several decades ago. Although many of these plots were obtained from the community chief/elder without the use of formal papers and titles, they have often passed through multiple lineages, thus those from within the community rarely contest ownership. The challenge facing a potential buyer is that multiple family members often own a share of the ancestral home and have varying degrees of attachment, therefore, it is often difficult to negotiate a deal that satisfies all parties involved. Moreover, 20 years ago a plot of land capable of housing a family could be purchased for approximately 350GHC. As this sum is currently not enough to rent a room for one year, there is currently little economic incentive to sell a property rather than rent it out. Consequently demand for land in Accra New Town significantly outstrips supply.

¹ Ghana Statistical Service, 2000 Population and Housing Census; Ghana Statistical Service, 2010 Population and Housing Census.

2. Housing and Services

‘A house may contain about 20 rooms... and most of our rooms the inhabitants are mostly a whole family with father mother and either 3 or 4 kids... This is a very difficult problem here’ (Participant, Male youth focus group)



Figure 6: Example of dense housing

The above-mentioned challenges associated with changes to the built environment, alongside the availability of and ability to access land, influences housing provision in Accra New Town. Similarly to other parts of the city, single rooms and compound houses are the most common type of accommodation found in the settlement. This is particularly evident as one moves away from the main roads where multi-storey commercial buildings such as printing presses and retail outlets predominate, and towards the more densely populated residential areas behind them. Compound houses vary in size and can contain as little as five or as many as twenty rooms. In the past, mainly family (including extended family) members would reside at the compound. In more recent times, although several family members jointly own the property not all reside in the house. Instead, one or two family members remain at the property and act as a landlord, and the remaining rooms are rented to private tenants as a means to generate an income. This additional income is often used to purchase land and build properties in other parts of the city where it is cheaper for family members to stay.

The ability to generate an income through rent, coupled with the challenges associated with accessing land, has resulted in property owners attempting to maximise economic returns from the space available to them e.g. by turning facilities such as bathrooms and kitchens into rooms to let. As is common in the Accra rental market, tenants are required to pay for their accommodation as many as three years in advance. With a single room costing approximately 50GHC per calendar month, this equates to a potential outlay of almost 2,000GHC. While

this arrangement is favourable to landlords and provides them with financial security, it places a considerable financial burden on prospective tenants and is often not accompanied by security of tenure.

One of the ways people overcome challenges associated with accessing affordable housing is to rent a container, which can be used for their economic activities and as a place to sleep. Another more common response is to cohabit with extended family members. For example, it is not unusual for an entire family consisting of a mother, father and three to four children to rent a single room with a sibling or cousin of working age to help cover costs. Problematically, this situation leads to overcrowding and its attendant problems such as poor ventilation and easier transmission of infectious diseases. Moreover, having received payment for a room several years in advance, there is no incentive for a landlord to address any deterioration in the condition of the accommodation provided. Given that many of the houses in the settlement are over 60 years old and in dire need of structural repair, this situation leaves tenants both susceptible to declining living standards and liable for remedying them if they are dissatisfied.

Water

‘When the tap goes out we really suffer because they double or triple the money you pay for water. For example the [Kuffour] gallon that we pay 15 pesewas is tripled and we pay 40 pesewas’ (Participant, female youth focus group)

Accra New Town lacks boreholes and protected dug wells. This is a long standing problem. Elderly participants recalled the difficulties they faced when attempting to access water as children, when aside from a river that ran through the entrance to the neighbourhood providing water for domestic purposes (a supply that ceased following the construction of a large gutter), they would have to travel to neighbouring areas to source water. The majority of houses now have infrastructure capable of providing water via a pipe connected to Ghana Water Company Limited, and if there is no pipe on the premises it is likely that a neighbour will have one they can access.

It is important to note that the presence of pipes and infrastructure capable of providing water does not necessarily equate to the ability to source water. For example, landlords often place locks on taps and charge tenants for sourcing water in addition to their rent. This helps landlords cover the monthly bill (range 20-40GHC) and even make a profit. Moreover, landlords will often allow neighbours and other members of the community to procure water from the pipe for a fee. A 10-litre bucket typically costs 20 pesewas and a family of five typically uses 5-8 buckets per day. In cases where only family members occupy a residence only, the monthly bill is divided amongst those earning an income. Although it is more cost effective to source water from a metered pipe, the majority of residents are unable to do so and, therefore, have to spend more of their income sourcing water on a daily basis (discussed further below). Female household members oversee water management in the home and often wake up before dawn to meet the family’s water needs for the day ahead.

At the time of data collection, participants complained that water had not flowed through the pipes in certain parts of Accra New Town ('Zongo' and central areas) for almost a month despite no warning or any clear explanation from the water company. Although this was an unusually long period of time, an intermittent water supply is the norm with water unavailable for days at a time as part of broader water rationing policies in Accra. This has context specific ramifications because the large Muslim population residing in Accra New Town needs water to perform their ablutions before prayer. With regards to the issue of quality, when the water does flow it is foamy in nature and emits an unpleasant odour. If consumed without treatment such as boiling it causes stomach upsets and other water related illnesses. Furthermore, due to the intermittent nature of availability, residents often collect and store large quantities of water during periods when the taps are flowing. However, if left for two days or longer impurities become visible even when the water is covered with a lid. This water is, therefore, primarily used for laundry and bathing.

Residents highlighted several strategies to manage issues concerning water access and quality noted above. Treated 'sachet water' is purchased from local vendors. They come in two sizes; small 500ml bags that can be purchased individually for between 10-20 pesewas and a larger sack containing 30 sachets that costs between 2.80-3.00GHC. Sachet water is primarily used for drinking and cooking. A family of five will usually purchase 2-4 large bags per week (often in addition to bucket water). Rainwater is also collected and used for bathing and laundry, but is only consumed as a last resort and after being boiled. In situations where there is no pipe in the house or a pipe cannot be accessed, water is also sourced from private vendors for 15 pesewas per 10 litres (also known as a Kuffour Gallon). During periods of scarcity, prices can rise as high as 45 pesewas per bucket, which places significant emotional and financial pressure on families. These vendors can usually be found within a 5-15 minute walk from most homes, but in times of severe shortage residents complained of having to take a taxi to Nima and other nearby neighbourhoods to source water from private vendors, which is both time consuming and expensive.

Toilets/Sanitation

'When you observe our houses the rooms are not enough to accommodate us. Hence the little space that could have been used to build a toilet facility would end up being used to build a single room to be rented' (Participant, male youth focus group)

Similarly to water, access to adequate toilet facilities and sanitation services is a long-standing problem in Accra New Town, with the majority of residents relying on public toilets and in some cases defecating in buckets and polythene bags (waste is then thrown into the gutter). The government policy requiring all homes to have at least one toilet, which was introduced in the mid 1990's, has led to an increase in houses with toilets, particularly KVIPs. Yet the issue of inadequate access to toilet facilities has become more pressing in the last decade. A key reason for this is because space that was previously allocated for the toilet and washroom is being converted into rooms for rent. In some cases even if there is a toilet it

will be kept locked so that only the landlord and their immediately family can use it, while some landlords allow tenants and neighbours to use toilet facilities for a fee.



Figure 7: Household toilet facility (outside main property)

Consequently, public toilets (owned by private companies and individuals) have to cater for an ever-greater number of people. This is particularly problematic in neighbourhoods such as Acotez and Angola where hundreds of residents currently rely on one set of public toilets, and in some cases even travel to neighbouring Nima to access facilities. There are currently 4-6 public toilets in New Town, which typically contain 6 cubicles for men and women respectively (12 in total) and vary in cost according to the level of service provided. Prior to the 1980s, public toilets were managed by city governments and were free to use. Prices now range from 10-20p (low quality), 30-40p (medium quality) and 50-70p (higher quality) per visit. The provision of toilet roll (as opposed to newspaper), a fan or air freshener to banish foul odours, soap and water, and a flushing toilet (as opposed to latrine) are key features at the higher end of the price scale.

The majority of public toilets in the settlement are in the 10 to 40 pesewa price range. These cheaper toilets are strongly associated with poor hygienic conditions and long waiting times. There are considerable queues in the early morning before people leave for work which leads to people resorting to open defecation. Furthermore, children and adults typically pay the same rate, which is a source of considerable frustration amongst mothers who are often charged with childcare duties. They either have to find the funds to enable their children to use a public toilet, or the children have to relieve themselves using a polythene bag or other unsanitary means.

Electricity (power for charging mobile phones)

'Almost all of us have access to electricity but to have our own meter is very difficult. You might have a house of 20 rooms that's using one meter so it is very difficult to determine how much electricity I used. So it is very difficult to share the bills' (Participant, male youth focus group)

The majority of homes in Accra New Town are connected to an electricity supply, albeit in some cases illegally. The settlement, however, is subject to what is colloquially known as 'light off' i.e. intermittent power outages as part of the broader energy supply management at the city level. In a typical week electricity is unavailable without warning on two to three occasions for varying lengths of time. The lack of warning is particularly problematic as the sudden withdrawal/return of power damages electrical items that are plugged in and can result in fires - in one such case four children were killed. Furthermore, losses of power lead to food items stored in fridges and freezers becoming inedible thus resulting in additional expenditure on food.

Despite these problems, the settlement has a relatively good power supply compared with other parts of Accra which is a key reason why a printing press industry heavily reliant on electronically powered machinery has emerged in Accra New Town in the past decade, with companies relocating from other parts of the city. This is perceived as having a negative impact, however, on New Town residents who consider that the presence of the printing press is reducing the supply to their homes and increasing the number of electrical fires in the area.



Figure 8: A small printing press business

Alongside the rise of the printing press industry, the introduction of ‘prepaid meters’ to replace paying monthly bills dominates concerns over electricity in Accra New Town. Under the previous system a monthly bill would be sent to the property and the occupants would attempt to divide the costs between themselves (region of 15-30 GHC per month per house), often according to the electrical items at their disposal (i.e. those with more paid more). A notable problem with this system was that regardless of service quality, customers were always charged. Yet the monthly billing cycle provided a sense of order, as did the belief that the company would provide power when able to. In contrast, the ‘prepaid’ system requires consumers to preload a card with credit in order to access electricity. The main problem with the new charging system is that it is considerably more expensive than monthly billing - two to three times more. It is also more difficult for families to budget as they are unable to predict when their credit will finish. In a context where many residents live in compound houses with other families, this has led to disputes over who should reload the card when the credit finishes and power is suddenly cut off. Residents would much prefer prepaid meters to be allocated to individual household units.

Voices from New Town: Housing and services

“Where we stay we don’t have toilet facilities...[but] most houses don’t have toilet facilities in this vicinity so in the morning there is always a queue. If you have to go work early in the morning maybe at 6 then you have to join the queue before it gets to your turn. This can make you late and can lead to unemployment because you could be fired for being late” (28 years old- male- freelance journalist- rented accommodation).

“It isn't all the houses that have water pipelines [but] I won't be able to explain why. It could be the decision of the landlords not to connect pipelines in their houses... There is no pipe in the house I live in, and in this area most of the people step out to fetch water and pay for it... Everyone drinks the sachet water. For about 3 weeks to 1 month the taps have not been flowing. When the taps are flowing they charge 20 pesewas for a gallon...[but] when the taps are not flowing they sell the well water for 40 pesewas per gallon” (41 years old- female- runs a provision store- rented accommodation).

“We don't have a refuse dump here. We give them to 'Abuya', the women with basket carriages and the truck pushers. That is what we do daily and their charges are equally high. I placed garbage in this small box and that bucket there too was full. For the two I paid 1 cedi and 50 pesewas. That is the charge for every three days. You can calculate and know the estimate for a month so we spend a lot on garbage here. Initially they used to dump it into a big container close to the public toilet across the street. Others don't dump it there they rather dump it in people’s back yards.” (22 years old- male- unemployed college graduate- rented accommodation).

“In this house it is a family house and if there is no understanding it brings a lot of issues. For example who will go for the water pipe? Who will use it and who will pay? I discussed it with my sister she said I can go for it but the one who will use it and the one to pay will bring a problem so we didn’t go for it... Formerly when the light bill comes we share it... It came to 50GHC or 54GHC [month] because they are the old one (meter), but a new guy came with the prepaid meter and we agreed and recently we paid 160GHC [month]. I use fridge, TV and radio and the others use fridge, TV, radio and iron and we all charge our phone and I am an electrician so I know phone doesn’t consume much power. I think the price increase is because they have increased the tariffs” (60 years old- male- electrician-homeowner).

3. Livelihoods and Mobility

‘We have the Twis, Gas, Ewes. The Ewes are much more. We also have the Kwahus, Buzamga and for Chambas this is their headquarters. The majority of the people here are Chambas. The Alata people are also many in Lagos Town. But generally there are more tribes in New Town’ (Participant, female elders focus group)

‘Because of the hardship everyone comes here even the Malians and the Nigerians all come here and (there is) a mixture of many people’ (Participant, male elders focus group)

Up until the early 1970s, Accra New Town was known as Lagos Town, a title reflecting the visible presence of migrants of Yoruba extraction from Nigeria within the settlement. This situation changed dramatically in 1969/70 when the state of Ghana implemented an Aliens Compliance Order, which compelled nationals of the other West African Countries who had not regularised their stay in Ghana to leave the country. Lagos Town was one of the locales that lost many such migrants, especially the Yorubas (who were also called 'Lagosians'). In the decades following the Aliens Compliance Order Accra New Town has maintained its reputation as a migrant dominated residential settlement, however, in contrast to the pre 1970s era, the area is no longer dominated by migrants of non-Ghanaian origin, but rather those of Ghanaian origin coming from other parts of the country.

In the past, those leaving New Town were often economic migrants from rural areas who had come to Accra with the intention of eventually returning to their villages. Migrants from rural areas are still leaving New Town but rather than returning to their village some are opting to move to other parts of the city. There is also an increasing number of migrants coming to the area from other urban locales, again primarily for economic reasons. These different types of migrants often employ a similar strategy. They live and work in New Town but save money towards purchasing land elsewhere in the city, usually on the outskirts in Kasoa, Adenta, Madina and Pokuase. Once a suitable plot has been obtained, they build a home over the course of several years and eventually move in once it is habitable.

In contrast to the previous generation, while youth native to New Town maintain a strong sense of attachment to the area, they are more willing than their parents to permanently relocate in another part of the city. This is often in an attempt to own a home and attain a sense of independence, but also to avoid disputes associated with living in an inherited property. For those unable to purchase a property of their own, they often move into second homes owned by family members located elsewhere, which have often been built using the proceeds of rental income. Unlike family properties located in New Town, there is usually less pressure to rent rooms in these properties to non-family members and they are less overcrowded.

Income-generating activities

‘The people of new town are engaged in different activities that earns them much income. Some engage in timber trading, others in technical activities such as aluminium fabrication, that is those sliding doors and windows. Others too learn a trade like dress making, hair braiding and so on’ (Participant, male youth focus group)



Figure 9: Economic activity on a main road

Accra New Town is increasingly synonymous with the printing industry, yet this is a relatively recent addition to the local economy and numerous other income-generating activities take place in the settlement. Similarly to other parts of Accra, informal sector economic activities such as selling fast-food are a prominent feature of the landscape, particularly in the densely populated areas behind the main roads where commercial banks, pharmacies and larger retail stores selling electrical items and clothing can be found. Alongside cooked meals, containers selling provisions and beauty products are highly visible, as are mobile phone credit kiosks, hair salons and sachet water stands. The female population primarily undertakes these income-generating activities, while their male counterparts

typically earn an income as drivers, timber merchants, electrical repairmen, mechanics and through petty trading. Migrants from rural areas were formerly strongly associated with the sale of agricultural produce at Mallam Atta (Malata) market, however an increasing number are now also engaging in the types of economic activities mentioned above. In some cases income from these activities is sent back to the migrant's village to be reinvested in the family business, which is deemed more beneficial than sending money purely to assist with subsistence. As land is becoming scarcer in the more densely populated areas of New Town, disputes over who is allowed to use the space outside a property for commercial activities are increasing. This is partly due to some landlords preventing tenants from running a business from their property and neighbours being less willing to allow their property to be used by others for home-based enterprises.

While the emergence of a printing press industry has added a new dimension to the economic activities taking place in New Town, the majority of these businesses are owned by and employ staff living outside of the settlement. This is a source of frustration among youth native to the area who consider it as being symptomatic of discrimination tied to the stigma associated with being from New Town. Male youth in particular were vocal regarding frustrations related to discrimination in the job market. This is linked to disparities in educational outcomes between males and females, most notably in the Muslim neighbourhoods, where female youth have a lower level of educational attainment than males which results in divergent employment prospects and trajectories. As young women are less likely to try to obtain work in the formal labour market, they have experienced less discrimination. Male and female youth both engage in entrepreneurial income-generating activities, however, that enable them to be job creators as opposed to job seekers. Some male youth earn an income via illegal means, such as cybercrime and drug dealing.

Service availability and income-generating activities

'Please we don't like the prepaid because when you sell water you cannot use fridge. And it is this same fridge we use to get a little money' (Participant, female elder focus group)

The challenges associated with accessing services such as water, electricity and toilet/sanitation facilities as highlighted in Section 2, negatively impact income-generating activities in New Town. In the case of electricity and water, this impact often has a tangible and direct bearing on the economic success of a business. For example, those engaged in the selling of fast food often rely on water to cook and prepare food. During times of scarcity when the pipes are not flowing, additional funds have to be found to obtain water for cooking which reduces potential profits and diverts money away from meeting household needs. In the case of electricity, the issue facing residents is not so much availability, but rather rising costs ascribed to the introduction of prepaid meters. At best, this results in a marginal reduction in profits, at worst, it can lead to an inability to trade and a loss of custom during periods when the meter has not been topped up. This has altered the economic playing field

as poorer business owners now lose customers to those who can afford to keep their prepaid meter topped up, whereas in the past a loss of power usually effected the population at large.

The impact of sanitation on income-generating activities is often less tangible in an economic sense, but still very real at a more practical everyday level (although paying to access a toilet uses money that could be spent on the business). Most places of employment in New Town do not have toilet facilities, and as public toilets may not be located near an individual's workplace residents often wake up early in the morning to use toilet facilities and thereby avoid having to attend to nature's call while at work. This also results in people, especially females, trying to avoid using the toilet for long stretches of time, or in moments of urgency either entrusting their business to someone while they use the toilet, using a polythene bag, or ceasing their economic activities while they go to the toilet. Mobile phones, which can usually be charged both at work and at home, have helped mitigate the issue of having to temporarily leave one's business (not just for the toilet), as they enable customers to contact businesses owners and find out when they will return. The mobile coverage in New Town is erratic, however, with residents often owning multiple simcards to overcome signal losses and reduce costs, as it is also more expensive calling cross networks.

Urban transport, mobility and income-generating activities

'The connection of New Town to other places like Accra is good. This is because New Town is a house for many businesses so it makes it easy going to Accra, Circle, Madina, Lapaz and everywhere.' (Participant, male youth focus group)



Figure 10: Trotro awaiting passengers

Private car ownership is slowly increasing in New Town, however, this mode of transport is beyond the financial reach of most residents who primarily rely on public transport in the form of trotro (informal minibuses), private ‘dropping’ taxis, and more recently motorbike taxis known as Okada. Trotro provide good connectivity to other economic hubs in the city, with traders travelling to central Accra early in the morning (4 am onwards) to purchase supplies, while at the same time commuters working in New Town travel into the area. Problematically, the practice of waiting until a trotro is full before embarking on a journey (known as fill and run) means waiting, and journey times can be unpredictable. Moreover the distribution of bus terminals can result in trotro users having to make multiple transfers to get from their origin to final destination. For these reasons, although they are more expensive, private taxis are considered more preferable to trotro, particularly on the return journey if carrying bulky goods and wares. What neither trotro nor private taxis can avoid, and their usage actually contributes to, is heavy traffic which is one of the key reasons why motorbike taxis have grown in popularity among male youth keen to bypass congestion.

The challenges associated with moving in and out of the area are incorporated into the income-generating activities of poorer residents engaged in petty trading, and the selling of provisions and fast food in New Town itself. Where possible, inhabitants try to reduce transport related costs by generating maximum returns from minimal movement. This is achieved by working within the settlement, ideally within walking distance from home to reduce one’s own mobility time and costs, and locating economic activities as close to the roadside as possible in an attempt to profit from the mobility of others as they pass by. Conversely, wealthier owners of the larger clothing and electrical goods stores found along the main high street are willing to travel long distances (via bus/trotro) across the border to purchase supplies in bulk from Togo, rather than in Accra, because although the initial financial outlay is larger it is more cost effective in the long run. Trips beyond the city boundary to visit family and conduct business in rural areas are avoided as much as possible due to the long and often uncomfortable journeys involved.

Voices from New Town: Livelihoods and Mobility

“Our community has attracted a lot and different kinds of people. For instance in our house we have a lot of Nigerians who have come here to attend school. Again we have Malians who are here to trade... This is because they use this place as a stepping-stone. New Town for example is a money making machine, anyone who comes here makes money and they go back to get their properties. For example we have 3 guys at our home who have started building their own homes. They were living in New Town and making the money. After they became rich they began to build houses of their own because the majority of the people in New Town are all tenants living in people’s houses. So whenever they make money they have to go and put up their own house”. (32 years old- male- electrician- familyhome)

“When we were kids our mothers sold banku, kenkey, tuo zaafi on the street without any problem... but nowadays even if you take a frying pan to even fry something on

the streets you will be worried by the landlord. Even in your own hood you will be sacked or even just ask a neighbour that you will like to put a table by hers and she will refuse.” (21 years old- female- student/food seller- rented accommodation)

“You will see that Newtown is now an industrial area with a lot of printing press machine and we are afraid about our future... some of them [residents] they are now working with the printing press and I thank God for that you know... [but] we want the government to do something and tell them that they should not take Newtown as an industrial area. There are a lot of place that they can go and establish their printing jobs there... what surprises me is that I do not blame the people who brought in their machine, the problem is that we the landlord we are too anxious to get money... this thing started almost going between 8 -10 years. Now when you see New Town all over is printing press machine”. (62 years old- male- former mechanic-homeowner)

“Car (trotro) is not a problem because the cars are always around calling out Circle, Nima and Mamobi for people to come and join, but the fare is the problem it is too expensive. From here to Accra they charged 30pesewas or 40pesewas but now it is 80pesewas. Even if you take the car from here to Pig Farm you will be charged 60pesewas, which was formerly 20pesewas”. (59 years old- female- housewife–rented accommodation)

“I think with the transport issue it is ok especially with the buses we are having. The only problem we have is they don’t have a station so what they use are the streets as their station. So when there is traffic it creates a big problem for us because it makes movement of the vehicles very difficult. This is because it is the same streets the vehicles use that they use as their station. That’s the problem we currently having now” (27 years old- male- unemployed/educated to tertiary level- familyhome)

4. Future Challenges

- There is currently a dearth of land in Accra New Town, which has contributed to the decline in affordable housing stock and increasing overcrowding in rooms and compounds. This situation is exacerbated by a contemporary shift from residential to commercial land use, and the emergence of a printing industry. Although these changes are contributing to a decrease in population, this decline is taking place within a context of historically high population density. New Town is likely to continue suffering from residential overcrowding and its attendant problems if the situation described above is left unchecked.
- New Town is known as a migrant residential area with a vibrant local economy, yet despite the variety of income-generating activities taking place, and the emergence of a printing industry, youth unemployment is a notable problem. The prevalence of crime, particularly Internet fraud and drug dealing, has been linked to this lack of employment opportunities. The creation of an additional market place specifically for young people to engage in (legal) economic activities was touted as a way to alleviate this problem.

- Residents identified several facilities and resources that are currently lacking in Accra New Town. The three most frequently highlighted were; recreational spaces that can be used for sports activities and general amusement; publically funded secondary and tertiary education institutions - the latter of which should offer vocational courses; and a library providing access to newspapers, books and information communication technology (ICT). Raising the funds to provide these facilities will be difficult, however a greater challenge may be finding adequate space to house them.
- Although far from ideal, access to services such as water, electricity and toilet/sanitation facilities are not currently a major factor in decisions to move out of Accra New Town. Decisions to move to a different area are usually fuelled by a lack of affordable land/housing and a desire to own a home rather than rent. Nevertheless key services are in need of upgrading, and the priority for such improvements are as follows:
 6. Water: residents are keen for the introduction of a system capable of providing reliable access to treated water that makes use of the existing infrastructure i.e. water should flow through the pipes and landlords should not lock taps.
 7. Toilet/Sanitation: the government should provide more assistance to those attempting to comply with the 'one toilet per house' policy initiative.
 8. Electricity: the printing press industry is placing a considerable strain on infrastructure and is also posing health and safety concerns.
 9. Mobile Phone Signal: the signal quality is comparable to other areas of Accra and is not a major area of concern.
 10. Local Transport: the settlement has good transport links to other parts of the city but due to macro economic challenges (increasing petrol costs), the rising price of trotro and taxis is placing a strain on income-generating activities and reducing profit margins.

Settlement Summary: Gbawe

1. Background

Previously the land was used for farming but now people only have backyard gardens to feed themselves, now we have a lot of buildings here so the land is no longer used for farming (Participant female focus group)

In terms of land administration in the whole of Greater Accra, we are at the top because we are the first town to open a customary land secretariat in the whole of Ghana (Participant male elders' focusgroup)



Figure 11: Residential properties on former farmland

Gbawe is a peri-urban settlement located approximately 10km west of central Accra, established by a family of hunters from Ga Mashi (now coastal Accra). In the not too distant past, it was covered in foliage and subsistence farming activities prevailed. However, like other peri-urban areas in the Greater Accra region, Gbawe has undergone significant social and physical changes since the early 1990s. Three changes are of particular importance here 1) rapid population growth 2) a decline in the dominance of farming activities 3) the increasing sale of land for residential use. Concerning Gbawe's growing population, recent census data indicates that the population in 1984 was only 837. By 2000 the population had increased to almost 29,000 and a decade later in 2010 it was almost 67,998¹.

Gbawe's rising population is a key cause of, and reproduces changes in, the built environment and land use practices. Land formerly used for subsistence farming and other agricultural activities are being converted into residential properties and to a lesser extent commercial buildings. This has altered Gbawe's landscape in two key ways. Firstly, there is a

¹ Ghana Statistical Service, 2000 Population and Housing Census; Ghana Statistical Service, 2010 Population and Housing Census.

noticeable reduction in the visibility of foliage and vegetation, which is now primarily found in resident's gardens, along the roadside, and in-between plot demarcations. Secondly, the form and characteristics of buildings being erected are more architecturally diverse. Mud houses can still be found in the old indigenous core, but the majority of homes built during the past three decades are constructed from cement and other similar materials. Moreover, the settlement's heterogeneous demography has resulted in substantial variations in property sizes and shapes, as residents build homes in accordance with their financial means.

Significantly, although the above-mentioned changes have substantially increased land orientated economic transactions, access to and disputes over land within Gbawe itself are not considered a major issue. This is due to the centralized management of land sales and disputes through the local chieftaincy. Nevertheless, there has been an increase in disputes over land along the boundaries with neighbouring settlements, particularly Ablekuma and Weija.

2. Housing and Services

When you go to the old town you will see a lot of mud houses but when you come here (Gbawe Zongo) you will see mostly block houses. This is where you find outsiders coming to buy land and buildings their houses here. At the old town the houses are mostly like family houses, but when you come here you will find a single room on one plot of land or a big building (Participant male youth focus group)



Figure 12: Housing in the 'old town'

In terms of housing provision and the types of houses under construction, Gbawe displays many of the characteristics commonly associated with Accra's peri-urban settlements. What was formerly arable land is now covered by an array of self-contained single family homes of varying sizes- ranging from a single room to multi-storey mansions with swimming pools- at varying stages of completion. However, although the built environment is characterized by heterogeneity, some basic housing patterns are discernable. Gbawe's indigenous core (Ga), which is located next to the Chiefs palace at the centre of the settlement, is where high-density houses built from mud can be found. These homes tend to be populated by indigene homeowners. As one moves away from the indigenous core, houses become more diverse architecturally and concerning their occupancy, with a mixture of homeowners and renters. This is connected to broader city dynamics, where a shortage of affordable land and housing in the city centre has fuelled the procurement of cheaper land in the urban periphery as residents attempt to build homes and rental properties to generate additional income.

Similarly to Accra's other peri-urban locales, landowners in Gbawe are adopting enterprising activities to maximize their economic returns. These activities influence housing provision in the settlement. For example, in the Accra rental market tenants are typically required to pay for their accommodation as many as three years in advance, however in Gbawe, rather than taking rent directly, prospective tenants can opt to pre-finance or co-finance the building of a house and or add essential services to the house. Additionally, there are families living as rent-free occupiers or caretakers of new housing projects, often for members of the Ghanaian diaspora. These somewhat unconventional agreements can be advantageous to tenants as the rent levels in such arrangements are generally lower than the prevailing market rates. Yet residents cautioned that these arrangements can also be precarious, with tenants evicted at short notice if the landlord receives a more lucrative offer, and in cases where a long term agreement is in place, tenants may still be forcibly evicted once construction has taken place.

Water

We don't have a problem with our water supply. Our water supply is hardly ever cut because we are close to the Weija Dam (Participant male elders' focus group)

Gbawe is located near the Weija Dam, one of Accra's primary water sources. Consequently, residents explained that pipe borne water is rarely unavailable, and in contrast to other areas of the city, the water provider usually informs residents about any disruption to their water supply beforehand. Homes in the old town and indigenous core are more likely to make use of communal water sources, and if there is no pipe on the premises, it is likely that a neighbour will have one that can be accessed for a small fee, and in some cases for free. Properties built more recently are often of a self-contained nature, and typically contain infrastructure capable of providing water via a pipe connected to Ghana Water Company Limited. The monthly bill for a household of ten is in the region of 40GHC per month.

For those unable to access pipe borne water directly from their homes or a neighbour, water can be sourced from private vendors for between ten to 20 pesewas per bucket (dependent on size), and a family of five can spend between 1.50GHC – 2GHC per day. These vendors can

be found throughout Gbawe, and are often not only within walking distance from one's home, they are also willing to lower their prices for customers believed to be facing financial hardships. However, residents explained that females are primarily charged with overseeing the household's water needs, therefore even though most vendors are nearby, it can be challenging carrying large buckets of water across the gutters.

The pipe borne water is deemed to be of a drinkable and adequate for cooking, but only if used immediately or shortly after being sourced. If left for four days or longer impurities described as 'oily' become visible at the bottom of the container, this occurs even if the water is covered. The majority of residents consume treated 'sachet water', which can be purchased from local vendors. They are available in two sizes; small 500ml bags that can be purchased individually for between 10-20 pesewas and a larger sack containing 30 sachets that costs between 2.80-3.00GHC. Sachet water is also used for cooking. A family of five will usually purchase 2-4 large bags per week. Rainwater is also collected and used for bathing and laundry.

Toilets/Sanitations

The buildings here are nice but they don't build toilets in the houses so it makes life here difficult. You have to go to a public toilet when you have to visit the toilet so we are pleading with the landowners to build toilets in their houses because it makes life difficult for those of us who rent the buildings (Participant female focus group).



Figure 13: Public-Private Toilet

Unlike availability and access to water, residents deem toilet facilities and sanitation services highly inadequate. The majority of residents living in rented accommodation rely on private-public toilets. Private-public toilets are owned by individuals and operate on a commercial basis, but are public in the sense that they cater for the needs of the general population. There

are currently five public toilets in Gbawe, which typically contain 4 cubicles for men and women respectively (8 in total), and charge 20-30 pesewas per visit.

Residents are content with the quality of the services provided. Facilities are generally clean, contain a fan, and provide soap and water. Problematically, there are considerable queues in the early morning before people leave for work which leads to people resorting to open defecation in the gutters, or using buckets and polythene bags (waste is then thrown into the gutter or bin). Additionally, although the toilets are usually open between 3am and 10pm, male and female residents expressed reservations about walking through the settlement late at night to use the toilet. This was argued to be another key cause of open defecation.

The government policy requiring all homes to have at least one toilet, which was introduced in the mid 1990's, has led to an increase in houses containing toilets, and while WC are not uncommon KVIPs are more prevalent. The reason why this has not prevented a reliance on public facilities as discussed above, is because this uptake often applies to familial properties, or those where the landlord is also residing in the building alongside tenants. In such cases, it is common for two toilets to be available, one for the landlord and their family, and one for the tenants. Tenants are sometimes charged a yearly rate for toilet facilities in addition to their rent. This fee is in the region of 10-15GHC. Given the cost of visiting private-public toilets on a daily basis, this is considered reasonable.

Electricity (power for charging mobilephones)

We [my family and I] came to live here in 1984. In those days we didn't even have electricity and a lot of other things but now we have come very far. Some of the things that are now giving us problems with electricity is concerning the prepaid meters that we use now, it is really giving us problems. When you buy 20 cedis worth of credit within 3 days it runs out and it's really not helping us at all (Participant male elders' focus group)

With the exception of a handful of properties in the old-town, the majority of homes in Gbawe are connected to an electricity supply, albeit in some cases illegally. This has been a gradual process, with older residents explaining that when the population was smaller and farming prevailed, the settlement suffered from a lack of electricity providing infrastructure. The shift from an agricultural to residential area has therefore been instrumental in changing the availability and access to electricity. The settlement is however subject to what is colloquially known in Ghana as 'light off' i.e. intermittent power outages as part of the broader energy supply management at the city level. In a typical week electricity is unavailable without warning on two to three occasions for varying lengths of time. When electricity is available, the current is of acceptable quality and most people are able to charge their mobile phones at home. Phone charging facilities are also available in stores, for a fee of 50 pesewas for a full recharge.

The main concern for residents are recent changes to the costs associated with electricity, which in turn has an impact on availability and access. The introduction of 'prepaid meters'

to replace post pay monthly billing cycles dominates concerns over electricity in Gbawe. Under the previous system, a monthly bill would be sent to the property and the occupants would divide the costs between themselves (region of 20-30 GHC per month). The main problem with the new prepaid charging system is that it is considerably more expensive than monthly billing - two to three times more. It is also more difficult for families to budget as they are unable to predict when their credit will finish. In a context where many residents live in rented accommodation with other families, this has led to disputes over who should reload the card when the credit finishes and power is suddenly cut off. Moreover, in cases where the electricity supply is being sourced from a neighbor as opposed to from the electricity company, the switch to a prepaid meter has resulted in a reluctance to 'share' one's connection due to fears of spiraling costs and sudden power cuts, leaving some residents without access to electricity.

Voices from Gbawe: Housing and services

I don't have water now [in my home], they say a bucket costs 10 pesewas and I have another bowl that I use and they say it costs 20 pesewas but I begged the woman that I have a lot of children so she should reduce the cost and she allowed me to pay 15 pesewas. So in a day I fetch water at the cost of more than 1 cedi 20 pesewas (Participant female youth focus group).

We have a problem with our toilets in this town because a lot of houses are built without toilets and they lock the toilets from 10pm so we don't get a toilet to use. We sometimes have to do take away if you can't then you have to go to the gutter or the bush, so we have a problem with our toilets, it's difficult to live in a house without a toilet (Participant male elders' focus group)

The sanitation situation is really disturbing. Sometimes you go to dispose of rubbish and the refuse man will tell you it's full so you have to return home and you still have to pay 1 cedi, so we just pray that he falls asleep when he is asleep around 1am we go there to dispose of the rubbish. Whether it is full or not we just throw it into the container and come back home (Participant female youth focus group).

Our current is okay but the cost of electricity is our problem. We don't like the prepaid meters we cannot cope with it. We should not be using prepaid meters because we have electricity and are supplying to other countries so we should not be using prepaid meters. It lasts for just a week and your credit is finished but with the postpaid meters it lasts for about a month before you have to go and pay, so we would really like it if the prepaid meters are removed from the system (Participant male youth focus group)

I don't have a meter at home but I connect from somebody's meter, we are about 8 in the house, and we all pay 20 cedis making 160 cedis. Recently just after two weeks we were told the units had run out and I told them I don't have 20 cedis to pay and that he should use his own money because he is really cheating me, so the prepaid meters are really giving us problems (Participant female youth focus group).

3. Livelihoods and Mobility

The commonest ethnic group found here, hmm the old town has a lot of Gas' living there but at the new site we are mixed. You will find Akans, Ewes, Ga's and Hausas at the new settlement, so at the old towns you find a lot of indigenes but at the new site you find different ethnic groups (Participant male elders' focusgroup)

Right now we can't tell if those who come here are workers from a company, what you see is someone coming to rent a chamber and hall apartment or someone comes to rent a place and later his relatives come to join him. So it's not like we have families moving in at once or workers coming in no they come one by one (Participant male youth focus group).

As mentioned above, Gbawe was formerly a small farming village predominately inhabited by the Ga ethnic group. Since the early 1990s, the settlement's population has increased and become more ethnically diverse. This change is linked to internal and external factors. For example, land formerly used for subsistence farming and other agricultural activities is being purchased and converted into residential properties and commercial buildings, which is connected to broader structural dynamics of the Accra land market. Individuals and families who have lived in Accra but are originally from different parts of the country (e.g. the Central, Ashanti, Eastern and Volta Regions), and members of the Ga ethnic group, are leaving more densely populated areas of the city such as Accra New Town and James Town respectively in search of affordable housing and investment opportunities in Gbawe. Residents were keen to explain that unlike other peri-urban locales, Gbawe's appeal was not due solely to cheaper land prices, but rather the settlements growing reputation for good urban management, a peaceful and safe environment, and improving services. These conditions were said to make the settlement an attractive destination for those in Accra seeking land and housing, particularly youths, but it also encourages the indigenes and those who have lived in the area for a long time to stay, or at least establish an investment property or landholding.

Income-generating activities

At first the only job here was stone quarrying or looking for and selling firewood and at first our parents use to have farms like tomato farms and we walked long distance like from here to Kaneshie to weed the farm. But now all the lands have been sold so you don't see such things anymore. Now there are no jobs here unless there is a construction work somewhere and you feel you can work then you go, there are no jobs for the youth (Participant male elders' focus group)

Farming still provides an occupation for a relatively small number of Gbawe's residents, however it is declining in importance as the land is increasingly being sold and converted into residential and commercial buildings. The declining importance of farming is mirrored in the loss of employment opportunities through sand and stone winning. Similarly to other parts of Accra, informal sector economic activities such as selling fast-food are a feature of the landscape. Alongside cooked meals, small containers selling provisions and beauty products

are visible, as are mobile phone credit kiosks, hair salons and sachet water stands. In some cases, these activities take place in spaces in and around the home, with garages, driveways and the pavement in front of the property used to conduct business and generate an income. The female population primarily undertakes these income-generating activities, while their male counterparts typically earn an income as barbers, drivers, construction workers and through petty trading. Residents were keen to stress that Gbawe has a very youthful population, and the lack of local employment opportunities, for male youth in particular, is an area of concern. The creation of an official marketplace was touted as a possible solution. It was argued that this would alleviate the need to travel to central Accra for goods, and create employment opportunities.

Service availability and income-generating activities

I use an electric machine to sew and I also have a hand machine so when the lights are out I use the hand machine. Your meter also goes off for 3 hours every day not just our house but in other houses as well, so I prefer the post-paid meter because this prepaid one has a lot of inconveniences. You have to join a long queue to buy credit to use so it's really disturbing me (Participant female youth focus group)



Figure 14: Advertisement for pre-paid credit facilities

The challenges associated with accessing services such as electricity and toilet/sanitation facilities as highlighted in Section 2, negatively affect income-generating activities in Gbawe. In the case of electricity, this impact often has a tangible and direct bearing on the economic success of a business. For example, in the case of electricity, the issue facing residents is not so much availability, but rather rising costs ascribed to the introduction of prepaid meters. This is a source of frustration because in the past a loss of power usually effected the population at large, whereas the prepaid system is viewed as lacking egalitarian principles. At best, this results in a marginal reduction in profits, at worst, it can result in an inability to

trade and a loss of custom during periods when the meter is out of credit. This is particularly problematic for poorer business owners who find themselves losing custom when their electricity is unexpectedly cut off, and even if they can afford to top up their account, there are often long queues, which again takes time away from income generating activities.

Mobile phones have helped mitigate the issue of having to temporarily leave one's business (not just for topping up credit but also to access the toilet), as they enable customers to contact businesses owners and find out when they will return. Residents stated that mobile phone coverage in Gbawe is comparable to other parts of the city, and suffers from common issues such as random signal loss and dropped calls. Business owners and residents more generally often own multiple simcards to overcome these issues and reduce costs, as it is also more expensive calling cross networks.

Urban transport, mobility and income-generating activities

Because we don't have jobs here, we all want to go into the city to work every day, so if we don't have good transportation it is a cause for worry because if not we would have to stay at home so for the transport we need it badly (Participant male youth focus group).



Figure 15: Car being repaired

Gbawe's transport system is strongly influenced by its location on the periphery of Accra. Private car ownership is on the rise, however the road infrastructure is in such poor condition that damage to car suspensions and tyres are common. The issue of potential damage allied to the fact that most residents cannot afford to own a car, means that public transport in the form of trotro (informal minibuses), private 'dropping' taxis, and more recently motorbike taxis known as Okada are they key modes of transport. In theory, trotro should provide good connectivity to other economic hubs in the city, but in reality the practice of waiting until a trotro is full before embarking on a journey (known as fill and run) can result in long waiting times during off-peak periods and journey times can be unpredictable.

The bus terminals location (near the Chief's Palace) also results in some users having to walk a considerable distance to board the bus, resulting in fatigue and clothes becoming covered in dust and dirt. Moreover, during peak hours such as the early morning, trotro users are forced to make unnecessary interchanges to get from their origin to final destination because drivers are aware that users are reliant on the service. These extra interchanges can double the cost of a journey. For these reasons, although they are more expensive, for those who can afford to use them private taxis are considered more preferable to trotro, particularly if the return journey involves carrying bulky goods and wares. For the non-indigenes, trips beyond the city boundary to visit family and conduct business in rural areas and or other regions are avoided as much as possible due to the long and often uncomfortable journeys involved, and the financial pressures associated with visiting relatives. However it should be noted that this is not an issue unique to Gbawe.

Voices from Gbawe: Livelihoods and Mobility

This is a Ga land, we all know that Ashanti's like to migrate so some of them are here but some Ewe's, Fantis and Hausas are also here but this is mainly a Ga dominated place (Participant male youth focus group).

Previously they used to crack stones here a lot but now they have put up houses in all those places, if not for the sewing opportunities the government has started, there were no jobs around here unless you learn a trade or your parents help you to learn a trade, like Hairdressing, sewing or to be a mechanic but there are no job opportunities here, previously we all used to crack stones but we were all sacked from the site (Participant female youth focus group)

I used to sell ice cream but since we started using the prepaid meters I stopped, the current is also always low, if the current was high enough I could sell enough to be able to buy credit for the meter but it's not like that so it's very disturbing (Participant female youth focus group).

We have very bad roads, the layout is now showing but it's un tarred and now with civilization we are in, look at the way you are dressed and you just stand outside to wait for a lorry before you even board the car, you are all dusty do we need the roads to be tarred, when

the road is tarred it's kind of good for the community, you just see the layout very well but these roads are very dusty, when you have a car, when you even have a new car, and you passing it on the road every time all your shocks you will be always spending on your car (Participant male elders' focus group)

Accra is a business center, but over here we don't have jobs here, when we used to sell the stones most of the indigenes went there to work but now that they have built houses there everyone goes into town to work. Even drivers go out into town to get passengers because there are no jobs here (Participant male youth focusgroup)

If you decide to go to Kaneshie, the small cars don't like to go to Kaneshie you understand... They might say they are going to Mallam junction first, but at Mallam junction they will say they are going to Odorkor, at Odorkor they will say First Light and at First Light, they will then say they won't go to Kaneshie. So if you are paying for all these fares by the time you get to Kaneshie you would have spent a lot. If you get transport straight from Kaneshie to Gbawe you won't spend as much as when you go in bits (Participant male youth focus group)

4. Future Challenges

- Gbawe lacks a hospital or medical facility providing affordable healthcare. The clinics that do exist are privately owned and often financially inaccessible for the majority of the population. Residents often have to travel by road to Korle-Bu hospital in order to receive treatment for illnesses and ailments. Given Accra's notorious traffic congestion issues, in the event of a medical emergency this is highly problematic.
- Although crime is not currently considered a pressing issue, residents believe that as the population continues to rise instances of crime are likely to become more common. There is at present an over reliance on the chieftaincy to maintain law and order, and residents believe such an approach is unsustainable in the long term. A police station should therefore be established in the near future.
- Residents identified several facilities and resources that are currently lacking in Gbawe. The three most frequently highlighted were; recreational spaces that can be used for sports activities and general amusement; a community centre providing access to newspapers, books and information communication technology (ICT); and a state secondary school. In contrast to other parts of Accra, there was optimism among residents that these facilities and resources could be provided in the near future, as their unavailability was not due to a lack of land or resources, but rather Gbawe's location on the outskirts of the city and recent emergence as a residential area.
- Although far from ideal, access to services such as water, electricity and toilet/sanitation facilities are not currently a major factor in decisions to move out of Gbawe, on the contrary, the population is increasing. Residents are optimistic about settlements future development, and there is a belief that key services and infrastructure will be present in

the near future. Nevertheless key services are in need of upgrading, and the priority for such improvements are as follows:

1. Local Transport: the settlement's location on the city outskirts, the poor quality of roads, and unscrupulous practices of tro-tro drivers hamper mobility and transport links to other parts of Accra. This is in addition to macro-economic challenges facing the rest of Ghana particularly increasing petrol costs, which results higher tro-tro and taxis fares that hamper income-generating activities and reduce profit margins. Improving the conditions of roads and better regulation of tro-tro drivers are fundamental to improve the local transport situation.
2. Toilet/Sanitation: the private-public toilets are insufficient and the government should help people comply with the 'one toilet per house' policy initiative. In the interim, the government should build more public toilet facilities.
3. Electricity: the reliability and current are comparable to other areas of Accra, if not slightly better. However the introduction of prepaid meters is placing a considerable financial strain on residents. A return to post-pay monthly billing is seen as the solution to this issue.
4. Water: the key issue with water centers on the costs facing those without access to pipe borne water in their home, and therefore have to rely on private water vendors.
5. Mobile Phone Signal: the signal quality is comparable to other areas of Accra and is not a considered an area of concern.

Settlement Summary: Ashale Botwe

1. Background

The first day I entered into this town with my father I met people going to Madina with firewood on their heads. They were going to sell them. During those times we had to walk through thick bush to get to Madina. But now those bushes are no more so we cannot even get herbs from the bush (Participant female youth focus group).

[In order to get land] the person will have to come and see the chief and then he [chief] will tell him or her if there is some or not... So if there is land the chief is the one who will tell you the amount of money to pay... But since there is no respect for chiefs, the young men also sell the land and theirs is without titles (Participant male elders' focus group).

Ashale Botwe (henceforth Botwe) is a peri-urban settlement located approximately 20km northeast of central Accra. Originally, the land was covered in foliage and subsistence-farming activities were common. However, like other peri-urban zones in the Greater Accra region, Botwe's landscape and demographics have undergone substantial changes since the 1990s, for example between 1984 and 2000 the number of houses in Botwe increased from 61 to 1,667. Of these changes, three are noteworthy here 1) rapid population growth 2) a decline in the dominance of farming activities 3) the increasing sale of land for residential use.

In terms of population growth, recent census data indicates that in 2000 Botwe's population was 11,974 and by 2010 it was 17,107¹. Botwe's rising population has resulted in changes to the built environment and land use practices. Lands previously used for agricultural activities are being turned into residential properties and more recently, shops and other commercial buildings. This has altered Botwe's landscape in two noticeable ways. Firstly, although still visible, particularly as one moves away from the main roads, there has been a reduction in the prominence of greenery and vegetation. Secondly, the newer buildings in the settlement and those under construction are more architecturally diverse than in the past.

Significantly, the above-mentioned changes have increased the frequency of economic transactions around land. Consequently, access to and disputes over land within Botwe have become a major issue. A key cause of this situation is the lack of a proactive chief, which has led to a lack of regulation and monitoring of the land market. As a result, conflicts surrounding multiple land sales and improper land titles are on the rise. Respected members of the community have sought to address the problem themselves but to no avail. There are concerns that if left unchecked, land disputes will hamper the settlements development.

¹ Ghana Statistical Service, 2000 Population and Housing Census; Ghana Statistical Service, 2010 Population and Housing Census.

2. Housing and Services

We used to have only ground buildings in this town but now that strangers have come to build in Botwe, some of them have built storey buildings. Others have built three bedrooms self-contained, five bedroom self-contained so the town has changed. It has now become like an estate like Madina and Kaneshie (Participant male youth focus group).

Now masons build the house like it is done in Accra. They use block and then they cover it with the roofing sheets or slates. There are still some mud houses around but there are no houses with weeds as roofing (Participant male elder focus group)

The housing stock and types of houses found in Botwe are consistent with trends and features prevalent in Accra's other peri-urban settlements, albeit to a lesser extent. In the last decade, Botwe has witnessed a rise in self-contained single-family homes ranging from single rooms to multi-storey buildings, and these residential properties are now a prominent feature of what was once a predominantly arable landscape. However, unlike other peri-urban areas, Botwe's built environment is relatively sparser and less built-up. Accordingly, residents did not complain about overcrowding and its associated problems. They did however mention a recent tendency towards building homes primarily for one's immediate family, as opposed to considering the accommodation needs of extended family members. Moreover, young people that have yet to start a family are building small often one-room houses with the potential for further expansion, instead of remaining in the familial home. On the one hand, this trend is alleviating the issue of overcrowding in Botwe's existing housing stock, on the other, it is creating a fragmented housing landscape which could become problematic as land becomes scarcer.

In terms of building materials, newer homes and those currently under construction are typically made from cement and other similar materials, while older houses constructed using mud can still be found throughout the settlement. Additionally, due to a spate of high profile fires that destroyed several houses, residents have started using slate roofing sheets rather than weeds and chaff. Residents view the use of slate roofing sheets and the increasing construction of concrete properties of varying shapes and sizes, as indicative of Botwe's development from a village on the outskirts of the city to an emerging residential area within it. There are however concerns that this construction of new housing is happening in a rather haphazard and inconsistent manner, with residents raising concerns about the quality and safety of buildings being erected, particularly in relation to multi-storey properties.

The price of a plot to build one's home, and the cost of rented accommodation are both on the rise, however residents explained that both are still more affordable in Botwe than in the centre of Accra. This combination of cheaper land and rental accommodation means that homeowners and renters can be found throughout the settlement. This had led to some unconventional agreements and practices taking place in the rental market. For example in Accra, prospective tenants are typically required to pay their rent as many as three years in advance, however in Botwe, landlords allow families to live in properties rent-free in exchange for performing the role of caretakers. To be clear, caretakers and their families are

rarely given the whole house to live in, rather they tend to occupy one or two rooms within the main house. Importantly, unlike other renters, particularly those in central locations, caretakers and their families usually have access to toilet facilities. In other cases, prospective tenants can opt to pre-finance or co-finance the building of a house and or add essential services to the house.

These slightly alternative rental agreements can be beneficial to tenants as the rates in such arrangements are usually lower than market rates. Nevertheless, residents cautioned that these arrangements can also be precarious, with tenants evicted at short notice if the landlord receives a more lucrative offer, and in cases where a long term agreement is in place, tenants may still be forcibly evicted once construction has taken place.

Water

At first we had underground water but because of development some of the holes have been covered and piped but I can testify that for twenty years now the taps do not flow. For twenty-two years now it does not flow so the tanker has to buy water for it to be poured into a polytank for us to buy. As to whether it is clean or not we have to buy. It is going to be poured into someone's reservoir for you to buy to cook and bath so we really have water problems. Water does not flow. (Participant male elder focus group)

In the past, residents relied on groundwater wells to meet their water needs, however this is no longer possible and Botwe currently suffers from an acute water problem. Like other parts of per-urban Accra, increasing urbanization and attendant population growth has resulted in Botwe's pre-existing water sources becoming polluted, dried up or covered by buildings. Nevertheless, residents were keen to stress that a reliable water supply should not be a problem in Botwe, because over a decade ago the government introduced an initiative to supply piped water to the settlement. Households were asked to pay 50GHC for the installation of infrastructure capable of providing water to their homes, and many residents did so. Unfortunately, the pipes that were installed are often too small to carry the amount of water needed. Conversely, in cases where the pipes are of a suitable size, demand for water exceeds supply to such an extent that the pressure is so low that the water does not flow.

The main water supply for almost all households comes from privately owned, large storage containers that are filled by commercial tankers. Water vendors purchase water from these commercial tankers and pay in the region of 50-60GHC per tank, and this water is then sold to residents for between 20-70 pesewas depending on availability and the size of the consumers bucket. These vendors can be found throughout Botwe, but due to the scarcity of water in the settlement they are often unwilling to lower their prices for customers. In fact residents complained that water prices in Botwe were higher than in other parts of the city, and the price of a bucket of water was an area of concern amongst participants. They explained that a family of five can spend between 2.50GHC – 3GHC per day and this places a considerable burden on household expenditure. There are fears that the situation is likely to worsen in the years ahead.

In terms of quality, water from private vendors is considered to be drinkable and adequate for cooking but only if used immediately or shortly after being sourced. If left for three days or longer impurities become visible, however residents were keen to stress that the quality of water was secondary to the issue of obtaining it in the first place. Alongside water obtained from private vendors, the majority of residents consume treated 'sachet water', which can be purchased from local retailers. Sachet water is available in two sizes; small 500ml bags that can be purchased individually for between 15-20 pesewas and a larger sack containing 30 sachets that costs between 2.80-3.00GHC. Sachet water is also used for cooking when water from private water vendors is unavailable. A family of five will usually purchase 2-4 large bags (containing 30 x 500ml sachets) per week. In addition to private vendors and sachet water, rainwater is also collected and used for bathing and laundry.

Toilets/Sanitations

In Botwe a lot of people do not have [toilets]. Where everyone goes is the public ones...Right now although it is not completely good it is better than before. At first there was none but now we have about four or five and we are managing with them (Participant male youth focus group).

Similarly to availability and access to water, residents deem toilet facilities and sanitation services to be highly inadequate in Botwe. The government policy requiring all homes to have at least one toilet, which was introduced in the mid 1990's, has led to an increase in recently built houses containing toilets, however the majority of residents rely on private-public toilets. Private-public toilets are owned by individuals and operate on a commercial basis, but are public in the sense that they cater for the needs of the general population.

There are currently five private-public toilets in Botwe. Four of these facilities use KVIPs, and consist of 4 cubicles for men and women respectively (8 in total). Users are charged 20-30 pesewas per visit. The remaining facility charges 50 pesewas per visit, but unlike the other public private toilets in the settlement it consists of WCs. Although more expensive, residents prefer this facility as it tends to be cleaner than the KVIPs public private toilets, however most admitted the cost is prohibitive.

The community has made efforts to upgrade the private-public KVIP toilet facilities and ensure they are maintained regularly, and aside from the issue of poor ventilation and resultant unpleasant odours, residents are generally content with standard of the facilities available. Problematically, the limited availability of toilet facilities causes considerable queues in the early morning before people leave for work, which leads to instances of open defecation in bushes, or using buckets and polythene bags (waste is then thrown into bins or burnt).

Electricity (power for charging mobilephones)

With the light it goes on and off. You can stay for one week without getting light and when the bill comes it is more than what you have used and if you ask they will tell you this is for street light and other things. They will give explanations that will calm you down but you realize that at the end of the month these things would have drained you so this also cause problems on our finances (Participant male youth focus group)

The new meter consumes too much money. When we buy 100gh, it does not even last for 3 weeks. So now, one person pays about 15gh every 2 weeks. The old one was not like that. This one consumes too much money (Participant female youth focus group)

The majority of homes in Botwe are connected to an electricity supply, albeit in some cases illegally. Improvements to the availability and access to electricity has been a gradual process. Older residents explained that when the population was smaller and farming prevailed, the settlement suffered from a poor connection to the national grid. This situation first changed during the Rawlings era, and the contemporary shift from an agricultural to residential area has also proven influential in improving the availability and access to electricity.

The settlement is subject to what is colloquially known in Ghana as ‘light off’ i.e. intermittent power outages as part of the broader energy supply management at the city level. In a typical week electricity is unavailable without warning on four to five occasions for varying lengths of time. When electricity is available the current is of an acceptable quality, and most people are able to charge their mobile phones at home. Residents were however keen to stress that although acceptable, the electrical current tends to vary depending on one’s location within the settlement, with some areas having noticeably stronger currents than others.

The main issue for residents is recent changes to costs associated with electricity, which in turn has an impact on availability and access. The introduction of ‘prepaid meters’ to replace post pay monthly billing cycles dominates concerns over electricity in Botwe. Under the previous system, a monthly bill would be sent to the property and the occupants would divide the costs between themselves (region of 15-30 GHC per month). The main problem with the new prepaid charging system is that it is considerably more expensive than monthly billing - two to three times more. It is also more difficult for families to budget, as they are unable to predict when their credit will expire. In a context where many residents live in rented accommodation with other families, this has led to disputes over who should reload the card when the credit finishes and power is suddenly cutoff.

Voices from Botwe: Housing and services

When you go to some communities they have water, as for this place we have a big problem with water. This basin here would cost 1GHC very soon and ask yourself that, if I should have 6 children and I want to wash, how much am I going to pay to wash all their clothes? (Participant female youth focus group)

When the pipes were laid they said they were taxing every house fifty cedis to draw water. It's been about ten years now or twelve years... We paid fifty Ghana at commercial bank and we were given receipts and it never came... As I talk to you we do not have working pipes in our home but in the night you hear the sound of the water in the pipes which means the water flows. We have paid the money all right but we do not get it (Participant male youth focus group)

As humans, we need to have toilets at our convenience so that even if there is a need to visit the place in the middle of the night, it will not be a problem (Participant male elders focus group)

At first, we used to go the bush but now, we can no longer go there. You need to pay before you visit the toilet and if you do not have the money, you need to do take away and now, there is no place to even throw the take away. Now the toilets, they charge 20p and 50p but the 50p facility is very neat (Participant female youth focus group).

The new meter consumes too much money. When we buy 100gh, it does not even last for 3 weeks. So now, one person pays about 15gh every 2 weeks. The old one was not like that. This one consumes too much money (Participant female youth focus group).

The light, water and everything worries us. The light goes in off very often and so even if you have something in the fridge it will get spoilt (Participant male youth focus group).

3. Livelihoods and Mobility

The town has grown very big. People from all over Ghana and Togo are here. We have people from the Ewe land, from Akan and Fante. It is not only Gas who are here...Previously it was only people from Teshi, Nungua, La and its environs. There were no strangers. Because, those times, you cannot even walk from Dodowa to this place (participant male elders focus group)

It is not as if people have not left Botwe. People have left Botwe. There are a lot of people who were born here in Botwe but they are no longer here. Some of us are also here. Others have gone to work at other places whilst others have gone and come back. Some have also built their houses over here. They are in other countries and some of us are also here because of work or our houses (participant male youth focus group).

Botwe was formerly a small farming village predominately populated by the regions indigenous ethnic group (the Ga'). Since the early 1990s, the settlement's population has

increased and become more ethnically diverse. This is evident in the latest census, which highlights that over 9,000 of Botwe's 17,780 residents were born outside of the Greater Accra region. Botwe's economy is improving and employment opportunities are emerging, but the settlement's population growth and changing demographics is linked to wider dynamics taking place in Accra's land and housing market. For example, land formerly used for subsistence farming and other agricultural activities is being purchased and converted into residential properties and commercial buildings by migrants from different parts of the country (e.g. the Central, Ashanti, Eastern and Volta Regions), and members of the Ga ethnic group. These individuals and their families are leaving more densely populated areas in central Accra and moving to Botwe in search of affordable housing. Additionally, migrants from neighbouring West African countries, most notably Nigeria, are also moving to Botwe. The latest census indicates that over 250 residents are from neighbouring West African countries, and a further 75 are from other African countries and or a different continent. This ethnic diversity is generally viewed in a positive light, but tensions are beginning to rise between the indigenous community and non-Ghanaian immigrants.

In contrast to the previous generation, while young people native to Botwe maintain a strong sense of attachment to the area, they are more willing than their parents to relocate to another part of the greater Accra region or emigrate abroad. Similarly to migrants who are moving into Botwe, as the settlement becomes more populated and land prices and accommodation becomes more expensive, these young people are leaving the area with the intention of establishing a home elsewhere. Meanwhile for young people keen to stay within Botwe, the solution to challenges associated with becoming a homeowner is to purchase a plot of land before prices becoming to exorbitant, and build a small one room property that can be extended over time as their financial circumstances improve.

Income-generating activities

Formerly we used to grow calabash, groundnut and cassava. For the calabash, when we grow it, we harvest it and dry it and then we carry it to Dodowa to go and sell. The groundnut was also same...during those days, our parents were farmers and that is what they taught us. We did not go to school. They also reared pig and cattle to take care of us. So our parents really had a tough time (participant male elder focus group)

We were farming at first but right now the place has changed and buildings have taken over our lands so it is driving you learn or masonry. So most of the men have become drivers, masons and carpenters. The women also do hairdressing and sewing. That is what goes on in the town now. (Participant male youth focus group)

Farming still provides employment for a relatively small number of Botwe's residents, however it is declining in importance as land is increasingly sold and converted into residential and commercial buildings. As farming and agricultural practices are declining informal sector economic activities have come to play an important role in the local

economy. A variety of small scale commercial enterprises can be found throughout the settlement, such as fast-food vendors, small containers selling provisions and beauty products, mobile phone credit kiosks, hair salons and sachet water stands. The female population primarily carries out these informal activities, while their male counterparts typically earn an income as barbers, drivers, masons and carpenters.

Residents were keen to stress that Botwe has a very youthful population, and the lack of local employment opportunities, for both male youth in particular, is an area of concern. The creation of an official marketplace was suggested as a possible solution to this problem, as it was argued that this would create employment opportunities and at the same time reduces the need to travel to Madina and central Accra for goods. Additionally, many young people undertake apprenticeships ranging from hairdressing to carpentry, both within and outside of the community. There are concerns that the local economy is incapable of accommodating all of these skilled people. It is hoped that the housing market will remain buoyant and the population will continue to grow, as these two interrelated process play an important role in sustaining the local economy.

Service availability and income-generating activities

The way the light is handled here is not good so we have to add light because light helps us in our work. That is what some of us use to work. It was not like that at first but now even if you are a mason and you are going to work someone will ask you to use a drilling machine to drill the block. That is what I also want to add (Participant male youth focus group)

The challenges associated with accessing services such as electricity and toilet/sanitation facilities as highlighted in Section 2, negatively affect income-generating activities in Botwe. In the case of electricity, this impact often has direct bearing on the economic success of income generating activities. Firstly, the issue of ‘light-off’ damages electrical products which can be expensive to replace and repair. Secondly, rising costs linked to the introduction of prepaid meters can result in an inability to trade and a loss of custom during periods when the meter is out of credit, both of which reduce profit margins. This is particularly problematic for poorer business owners who are unable to place large amounts of credit on their prepaid accounts, and find themselves losing custom when their electricity is unexpectedly cut off. Even if they can afford to top up their account, they often have to travel and then wait in long queues to do so, which again takes time away from income generating activities.

The widespread use of mobile phones has allowed businesses owners and workers to feel more comfortable about leaving their place of employment, for example when adding credit to a prepaid meter or going to the toilet, as customers are often still able to contact them and find out when they will return. Likewise, business owners are able to keep in better contact with clients and customers. Despite being on the outskirts of Accra mobile phone coverage in Botwe is comparable to other parts of the city, and suffers from common issues such as random signal loss and dropped calls. To overcome this problem business owners and

residents more generally often own multiple simcards. Furthermore, owning multiple simcards can be beneficial financial beneficial because it prevents the need to make cross network calls, which are often more expensive.

Urban transport, mobility and income-generating activities

The transport fares are killing us. Formerly, we used to pay 20p from here to Madina but now, we pay 70p. Soon, it will be 2 Ghana (cedis). At first, we used to spend up to just 2 Ghana (cedis) from here to Accra but now, we now we pay too much (Participant female youth focus group).

If you go to town to buy things and you pick a car and tell them you are coming to Botwe they will tell you the road is not good and because you cannot carry the things to Botwe you have to pay any amount mentions so that he can bring you home because the road is not good so if we get water the roads must also follow. They should provide us with good roads so that if you are going somewhere you can go quickly (participant male youth focus group)

Botwe's transport system is strongly influenced by its location on the periphery of Accra. Private car ownership is on the rise, however the road infrastructure is in such poor condition that damage to car suspensions and tyres are common. The issue of potential damage allied to the fact that most residents cannot afford to own a car, means that public transport in the form of trotro (informal minibuses), private 'dropping' taxis, and more recently motorbike taxis known as Okada are they key modes of transport. In theory, trotro should provide good connectivity to other economic hubs in the city, but in reality the practice of waiting until a trotro is full before embarking on a journey (known as fill and run) can result in long waiting times during off-peak periods and journey times can be unpredictable. The emergence of Madina as a commercial hub has alleviated the reliance on travelling to central Accra for goods, but there are still certain products that can only be purchased in the city centre, or can be purchased cheaper even after accounting for transport costs.

Voices from Botwe: Livelihoods and Mobility

Now there are changes in it because at first it was farming but now people have learnt other jobs. There are drivers. They have their cars. There are masons. They work everywhere. Electricians. They go everywhere because they go everywhere that there is construction going on or light problems. You do not only work at Botwe because you live there. There has been a lot of changes some of the women sell their food, others will be braiding hair and others will be sewing so there has been a great change and the farming business is no longer there (Participant male youth focus group)

The Yorubas are the ones who come here most often and the twis, and the ewes. But the Nigerians are the most people here now. They have brought some sicknesses here and they are really bothering us (Participant female youth focusgroup).

Those of us who have cars and motors, by two months all your shocks will be spoilt but if you have good roads your shocks and springs will last longer and then you will not have to waste money so we really need the roads because all the roads are not good. All the roads behind and in front of the town have not been tarred. They roads and this is also causing harm (Participant male youth focus group)

At first there no roads but a lot of footpaths but now we have roads leading to where ever you want to go but they are not tarred but they have created roads for easy access for vehicles. So they are not done with the developments but much has been done (Participant male youth focus group)

4. Future Challenges

- Botwe lacks a hospital or medical facility providing affordable healthcare. Residents often have to travel by road to 37 Military Hospital in order to receive treatment for illnesses and ailments. Given Accra's notorious traffic congestion issues, in the event of a medical emergency this is highly problematic.
- Although crime is not currently considered a pressing issue, residents believe that as the population continues to rise and more immigrants move to community instances of crime are likely to become more common. The connection between immigration and crime could not be substantiated, but residents are adamant that a police station should be established in the near future.
- Residents identified several facilities and resources that are currently lacking in Botwe. The three most frequently highlighted were; a post office, a state secondary school and a functioning sewage system.
- Although far from ideal, access to services such as water, electricity and toilet/sanitation facilities are not currently a major factor in decisions to move out of Botwe, on the contrary, the population is increasing. Nevertheless key services are in need of upgrading, and the priority for such improvements are as follows:
 6. Water: the key issue with water centers on the costs facing those without access to pipe borne water in their home, and therefore have to rely on private water vendors.
 7. Toilet/Sanitation: the private-public toilets are insufficient and the government should help people comply with the 'one toilet per house' policy initiative. In the interim, the government should build more public toilet facilities.

8. Local Transport: the settlement's location on the city outskirts, the poor quality of roads, and unscrupulous practices of tro-tro drivers hamper mobility and transport links to other parts of Accra. This is in addition to macro-economic challenges facing the rest of Ghana particularly increasing petrol costs, which results higher tro-tro and taxis fares that hamper income-generating activities and reduce profit margins. Improving the conditions of roads and better regulation of tro-tro drivers are fundamental to improve the local transport situation.
9. Electricity: the reliability and current are comparable to other areas of Accra, if not slightly better. However the introduction of prepaid meters is placing a considerable financial strain on residents. A return to post-pay monthly billing is seen as the solution to this issue.
10. Mobile Phone Signal: the signal quality is comparable to other areas of Accra and is not a considered an area of concern.

Ghana: Sekondi-Takoradi settlement reports

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Settlements studied in Sekondi-Takoradi

Neighbourhood/ Settlement	History	Location	Income-level	Rate of population growth	Remarks
New Takoradi	Indigenous	Central	Low-income	Growing rapidly	Old area
Kwesimintsim	Established 1930s	Western edge of centre	Low-income/mixed	Growing rapidly	Many migrants
Anaji	Indigenous and newcomers	Northern edge of centre	Middle/upper income	Growing rapidly	Includes estate houses
Assakae	Indigenous and newcomers since 2000	Western periphery	Low/middle income	Growing rapidly	Farming land becoming residential
Kojokrom	Indigenous/migrants and newcomers since 2000	Eastern periphery	Low-income	Growing very rapidly	Commercial area, railway, infilling, densification

Settlement Summary 1: New Takoradi

1. Background

New Takoradi is a low-income coastal settlement located to the east of the Takoradi Harbour, the second biggest seaport in Ghana. The community was relocated to its current location, when the Takoradi Harbour was constructed in the early 1920's. New Takoradi covers a land area of about 53.95 sq. miles or 34,571 acres. It is bounded on the north by Odum Dominase (Wassa Fiase), on the south by the Atlantic ocean, on the east by Sekondi stool land (traditional land), and west by Apowa stool land. Historically, in the early parts of 15th century, the settlers in New Takoradi migrated from Techiman in the Brong Ahafo region of Ghana. Led by Nana Yaw Nketsiah I, they entered New Takoradi through the western side to Nzimaland and first settled at Apollonian, Princes Town, Adiewaso and finally at the Ahanta traditional area where Nana Baidoo Bonsoe was the paramount chief. The present settlement was initially called Toworase, meaning a big tree where people sat to take decisions. With the arrival of the Europeans, it was changed to Takoradi due to the difficulty in pronouncing the name.

New Takoradi is a densely populated area and its population has been increasing over the years from 10,464 in 1970 to 12,985 in 1984 and 13,556 in 2000¹. The population of New Takoradi in 2010 according to the results of the 2010 Population and Housing Census was 20,204. However, an enumeration exercise conducted by People's Dialogue (PDG) and the Ghana Urban Poor Federation (GUPF) in 2006 puts the population at about 27,564. This rapid growth in population is largely explained by the job opportunities the harbour offers, and recently the economic developments in the oil economy that have occasioned the influx of migrants into the Sekondi-Takoradi metropolis who find accommodation in New Takoradi for its central location and seek economic opportunities in the oil and its related sectors such as trade subsector. The community is divided into the lower and upper towns, with fishing as the primary occupation. Currently, New Takoradi is challenged by the phenomenon of coastal sea erosion which has negatively affected fishing activities there. It is also faced with the problem of increased population pressures and outmigration of wealthier community members to suburban locations, and this partly explains the community's predicament in terms of the deterioration of its housing stock, particularly older single-storey buildings and compound houses made from mud in the older sections of the community also characterised by high population density.

The lower part of New Takoradi is experiencing uncontrolled development and infilling along the coast and railway lines while the upper part is undergoing intense renovation and modification particularly in the new settlements where the density is relatively low. A possible reason for this development is the general increase in rent levels as, with the coming in of oil (related) companies and migrants, landlords prefer to take advance rent payments for up to two years or more. In some cases, landlords use the rent payments to make extensions

¹ Ghana Statistical Service, 1970 Population Census; Ghana Statistical Service, 1984 Population Census; Ghana Statistical Service, 2000 Population and Housing Census, Ghana Statistical Service, 2010 Population and Housing Census.

to their buildings while others upgrade the existing buildings, and this, in addition to reducing the chances of poorer ones getting accommodation and encouraging informal settlements, result in the increased incidence of evictions.

Although a planned community, the neighbourhood dynamics are complex and central to land issue in the area, which is that there are no available plots of land for development. Lands in New Takoradi are customary lands and were acquired by families several decades ago usually by paying a small amount of money with a bottle of schnapps (local gin) to the Soro (Kokoado) chief and the Epoase chief representing upper and lower New Takoradi respectively. Although these plots of land were obtained without formal documentation and titles, they have carefully been inherited by several generations of family members, with less land litigations. Currently the prices of vacant building plots, that were bought decades ago but undeveloped, range between GH¢15,000 and GH¢40,000 though the prices ranged between GH¢3,500 and GH¢7,500 as at 2005. The phenomenon of dollarising transactions in the community is intensifying as multinational oil tycoons clamour for land and office spaces, probably due to the community's proximity to the central business district (CBD) of Takoradi.

2. Housing and Services

The housing problem in New Takoradi can be described as that characterized by excess demand over supply, reflecting the national supply- demand trends. Migration coupled with urban population growth, alongside the dynamics in the built environment have brought with it numerous problems such as pressure on available infrastructure, service delivery and demand for housing. Majority of the houses are family owned and occupied, though a few wealthy members out-migrate to rent or build their own houses at the fringes of the city and still retain ownership of their rooms in the family house. Oftentimes, some rent out such vacant rooms to tenants to generate income towards the maintenance of the building or acquisition of new property outside the community, while a few also maintain them as their second residences, suggesting frequent suburban and urban linkages. On the average, there are 8 rooms per house though there could be as many as 20 rooms, with between 6 and 30 persons per household (see figure 1.1).

The housing types in the neighbourhood are dominated by single rooms and multi-occupied large housing blocks (compound houses). Though they are mainly made with mud, the outer parts are usually cemented to appear like block houses. The difference becomes evident as one move away from the lower town along the coast where the compound houses are dotted with few single-storey mud buildings, towards the inner part and the upper town where there are a lot more block-made compound houses and multi-storey buildings. Also, unlike in the upper areas where some residential structures are undergoing gentrification with some frontage shops, the densely populated areas along the coast are experiencing a lot of uncontrolled development and encroachment on public spaces including the roads and markets. In most cases, the spaces between the houses are only large enough for a person to pass through aslant, as the women have built huts on every available space to smoke their

fish. This presents a potential hazard as many women leave the fires overnight, and the layout may not permit entry by emergency services.

Figure 1.1: A section of New-Takoradi lower town showing its housingstock



Source: Field work, 2014

The pressure of demand on housing, combined with the scarcity of land, has affected rental arrangements. In the past, a person could give a bottle of schnapps or even a bowl of fish to the family elder in exchange for a room to live in. Although this initially provided accommodation for fishermen who temporarily came to fish at the coast, it influenced the rental market where tenants were required to make three months rent advance payments. However, the same cannot be said today as competition for room has become intense especially with the arrival of 'oil' migrants. With a single room costing approximately GH¢40 a month, cheaper than it is in other places though, potential tenants must pay for a minimum of 2 years advance which is equal to GH¢960 and this comes as a burden on the earnings of tenants. Most of the houses have not been renovated or maintained over long periods and hence they have structural defects such as cracked walls, which provide scary sights of buildings likely to collapse especially when it rains. The gutters are also chocked making flooding a recurring event in the community.

Excess demand over supply of housing makes it difficult for many households to afford decent housing. As necessity begets ingenuity, some landlords tend to convert facilities such as kitchen and store room into sleeping spaces. A more common coping strategy is, for a group of people to contribute, to erect a container or wooden store on available space that can be used for their work during the day and as a sleeping space in the night. Although, this strategy helps a lot of people to survive it comes with a price to the wider community and that is poor ventilation, uneasy access routes, blocking water ways, and inhibiting smooth expansion of roads and gutters by municipal authorities. Overall, it puts excessive pressure on

the already limited and overstretched infrastructural services such as water, electricity, and toilet/sanitation.

Water

I have pipe in my house but for 2 months now, the taps have not been running. When it flows, it does so for a short time and then ceases, and whenever the bill comes, it is around GH¢40. And because of that I owe them which I have not paid. ... What should we do to the money we borrowed to finance our work since the water is not flowing. How can I pay my lenders? We are pleading that the authorities see to it that the situation is reversed and we get to the good old days (Adwoa Arko, 58 years old female- trader who doubles as a cleaner at Zoomlion- elders' focusgroup)

The water landscape of New Takoradi is characterised by a mix of areas without water supply, and those with erratic and unreliable supply. These inadequacies are felt disproportionately among residents, for instance, in the lower town where coverage is relatively good the service is increasingly unpredictable and unreliable, whereas in the upper town access is poor as a result of low pressure (land configuration) and residents rely on private vendors. Majority of households in general access water through multiple sources such as pipe connection from Ghana Water Company Limited (GWCL), water vendors, rain water harvesting, and sachet water for their drinking and domestic purposes.

Water supply in the community is dominated by private vendors who store in reservoirs and polytanks. Vendors (mostly landlords) who operate within or very close to their homes usually 5-15 minutes- walk, have space on family lands for their operations though tenants are often not given such a privilege. They connect to the public water supply network directly and pay monthly bills between GH¢100 and GH¢300 to GWCL through the metered billing system. Water is sold to the public at GH¢0.20 per 34 litre bucket, but in times of severe shortages when vendors purchase water from tanker operators, the same quantity sells for GH¢0.40. Similar to the community vendors, a few households, who have domestic pipe connections, also sell water directly from the standpipes to raise money to pay their monthly bills which is between GH¢15 and GH¢40. It is interesting to note how the dynamics play out in this context. In most instances, the facility is owned and controlled by the landlord and household members together with other members of the neighbourhood access it at a fee. At such facilities, the *Kufuor* (yellow) gallon costs between GH¢0.30 and GH¢0.40, though such household vendors are not always operational as the community vendors. In a case where a residence is occupied by a particular family the monthly bill is divided among household heads and one member goes to pay on their behalf.

Such practices epitomise the capture of resources by local elites (elite capture), mostly the affluent and powerful, which entrenches power dynamics and further marginalizes vulnerable community members. The implications are clear and numerous; most community and household vendors, due to the irregular flow, rely on the services of small-scale water tankers that are relatively reliable but very costly. Vendors sometimes complain that they do not cover their operational costs of water and this is worsened by family members who use large quantities of water without paying. Similarly, at the household level, large households spend

majority of their time and income on accessing water. As household members have busy work schedules they have no option than to contract others to collect water at a fee from the harbour and the area around the Shell Company. Also, there is the potential of a household being disconnected when a landlord fails to pay accumulated water bills.

The irony of these developments is that, the community vendors who are connected to the GWCL water distribution network and sell to the neighbours receive water in their reservoirs and polytanks while individual households with the same connection to the GWCL in the community do not get water. Thus, discrimination in water distribution in favour of some parts of the community and high water bills are some of the challenges identified by residents. They also explained that some water facilities provided through NGO support are not functioning and complained that caretakers of the existing ones do not correctly report the amounts they collect daily from the sale of water and also their families fetch water from the facility without paying. In the face of these irregularities and for quality concerns, some residents resort to the drinking of (purified) sachet water that costs between GH¢0.10 and GH¢0.15 per sachet depending on the brand or GH¢2.50- GH¢3.00 for the entire bag of 30 sachets.

Toilets/Sanitation

Access to toilet facilities and sanitation services remains a major challenge to residents in New Takoradi. Three main types of toilet facilities are available in the community. First is the private in-house toilets type, mostly ventilated improved pits (VIPs) provided by landlords. Majority of the landlords keep the toilets locked for their immediate family to use them, while others allow some tenants and neighbours to use the toilets for a fee. Secondly, is public latrines and water closets which are not well maintained and generally smelly. Majority of the community members use them, with a user charge of GH¢0.20-0.30 on each visit. Lastly, are the commercial toilets, made up of water closets and VIPs, constructed and operated by private individuals. They charge user fees of between GH¢0.40 and GH¢0.50 per use, depending on whether toilet roll or newspaper is preferred, and "rich" community members depend on these facilities as they are clean with virtually no stench.

To a large extent, the toilet problem is one of availability (adequacy), accessibility and affordability. There are currently a total of 8 public toilets in New Takoradi (4 each for the lower and upper towns), and majority of the facilities have about 6 cubicles each for men and women. The inadequacy of the toilet facilities has occasioned a situation where residents spend long waiting times especially during the rush hours, before residents leave for work and school, and in some cases residents even travel to neighbouring areas to access facilities. Furthermore, the economic hardship in the community makes accessing the public toilets unaffordable, especially for large households, and this leads to residents (including children) resorting to open defecation on the beaches where there are different "designated" spaces for men and women. This does not only keep the beaches in a bad state but also affects fishing activities which is the mainstay of the local economy.

Also, for affordability concerns, children often relieve themselves using polythene bags. Though seemingly accepted, it has become a worrying practice of late as some adults, who

seek to evade the toilet fees, deliberately use the polythene bags and later dispose them at the dumpsite with the household waste or in the frontage of people's shops or fish smoking huts. Notwithstanding the flies and attendant health impact this brings, the perpetrators explain their actions by the fact that most of the toilet facilities are locked at night. Solid waste management is also a challenge as the lower and upper towns are currently served by only two dump sites. Not only do residents have to walk long distances to access these sites but the prices range from GH¢20-50 per dump depending on the volume of waste, and this has influenced poor attitudes among residents who illegally dump at the beach or backyard of other neighbours in the cover of the dark. Also, a few residents employ the services of informal waste collectors (*kaya bola*²) who collect household waste with their tricycles for a fee and later dispose them at the dump site.

The caretakers and cleaners at the toilet and sanitation facilities, who are responsible for emptying the pits and skips and maintaining the facilities, mention dumping of polythene bags containing toilet in the pits, stench from leachate due to irregular emptying of skips, and complaints from residents living close to the dump sites as their major challenges to their operations. Overall, the toilet and sanitation problem connects to the central issue of lack of space for property development. Although some residents in the old settlements expressed desire to develop toilet facilities in their dwellings, they complained about the lack of available space. Similarly, acquiring appropriate land to site a community dump site remains a daunting challenge to the local authorities, and access to these services has implications on mobility and livelihood activities.

Electricity (power for charging mobilephones)

At first we all had ordinary meters until they brought us prepaid to use. We couldn't say anything and so we accepted them. This prepaid has brought quarrels among many people and some have even ended up in the court. If we buy GH¢20, it gets used up by the next day. They said they will fix it but they haven't done anything about them. (Maadwoa, 30 years old female- fish monger- youth focusgroup)

Reflecting the national power supply situation, access to electricity supply in New Takoradi is relatively good as the majority of households are connected to the national grid, Electricity Company of Ghana (ECG). However, coverage or accessibility does not necessarily mean reliability and affordability as these concerns have characterised the landscape of power supply in the community. With the successful completion of the transition process from the monthly metered billing system of electricity access to the prepaid metered system, power supply has rather become expensive and less pro-poor with service quality increasingly becoming poor and creating problems among household members. The prepaid system requires consumers to purchase credit on a card to be able to access electricity. Although initially preloading a card with GH¢10 could allow a small household to access electricity for three days, currently the same amount cannot guarantee a day's power supply. Most residents again expressed their dissatisfaction with the situation where they pay levies for street light

² *Kaya Bola* is an informal name for waste collectors who carry solid waste from residences and markets (in sacks, baskets, on push trucks, etc.) to a skip or dumping sites for a fee.

(as a component of electricity consumed) when such facility is non-existent in their areas. The average household in New Takoradi spends between GH¢60 and GH¢100 a month on electricity access and this is far more than they used to pay under the previous system, GH¢30-60 with more flexible instalment payments.

In addition to cost, the prepaid system is associated with numerous quality of service issues. The prepaid meters pose a lot of technical problems to residents which include; unstable currents, failure of meter to capture card reading for first time users, and non reading of meter and sometimes complete shutdown after inserting a preloaded card. Also most residents perceive that the prepaid meters read faster and consume a lot of current as compared to the previous system. In most instances, the meters are placed on poles along streets or in front of houses and the wires are mostly exposed to electrical fires when they experience strong wind or rainfall. Unfortunately, the technicians at ECG appear less responsive to consumers who take up the challenge to call or visit the office to lodge their complaints. Furthermore, the introduction of the prepaid system has witnessed frequent power outages which are common at the city and national levels, and lights could go off 5 times in a day for several hours at different intervals.

High cost, poor service and unreliable power supply negatively affect household cooperation. As already indicated majority of the settlements are compound houses, with sometimes up to 10 households sharing one meter, and this results in the difficulty of predicting when the next top-up is due and agreeing how much each person or household is required to pay. This is further worsened by the financial unpreparedness of certain households and their members to make payment for the next top-up. Another problem with the multiple-ownership relates to disputes regarding overconsumption and aspects of who bears responsibility for fixing faulty meters. Additionally, the frequent and unannounced power outages damage electrical and electronic equipment including TVs, fridges and freezers and make preserved food items become rancid as well as interrupting income generating activities. Poor electricity access also leads to difficulty in charging mobile phones and this sometimes leads to charging at designated centers (who use generators) for a fee to be able to be connected to stay in touch with families and work partners. It must be added that, notwithstanding the poor state of services, new comers continue to seek accommodation in New Takoradi and this suggests that people tend to look beyond provision of services when considering where they would stay.

Voices from New Takoradi: Housing and services

"The whole matter is that the government has neglected us. Our houses are dilapidated, narrow and choked gutters... and nothing is being done for us. In other places, the government is with them doing all that is needed to be done, but here market, toilet, water, road, whatever as we started is the same. For water, the lower town is even better because for the upper town for more than 2 weeks there is no water but the bills keep coming. The water just flows for an hour and goes off. Sometimes you don't even notice it has been opened. Due to the water problem, cars have been knocking down

children in the town." (James Baidu, 68 years old male- former account clerk at railways corporation- landlord)

"At first the toilet fee was low but today it is expensive. Because they have increased the price, when you go to work in the morning, you will find someone's toilet in front of your oven or smoking hut. They said we should not defecate at the beach, and if we do, they will arrest us. So people defecate behind the ovens because we don't get places to defecate. Also, the refuse containers can be there and they will not come to empty them, and the upper town people sometimes bring their refuse here and this is really worrying. I share a border with the dump site and when you are in your room with your door closed, you will hear a shout of get up! get up! I am here to dump." (Sarah Bondzie, 77 years old female- fish monger-landlady)

"We have a big problem with our electricity because by just buying the prepaid and fixing it in the meter will make the system go off, and even after two weeks it will not be on. If you go to their offices they will not even come and at the end of the day you are forced to call an ordinary electrician and pay service charge." Also, I think buying prepaid from Takoradi town lasts longer than buying here in new Takoradi. With this we don't understand when we think about it. So at times when it goes off, some of us don't buy until we go to Takoradi. A lot of people complain about the prepaid cards here because they don't last long, sometimes it lasts for 3 days, and the light off has been there for a long time. (Agya Ankomah, 32 years old male- barber- homeowner)

"The lights that we are talking about right now to be frank with you affects our businesses and the work that we do here. I went for a GH¢1,500 loan and went to buy deep freezer to make some ice blocks for sale. I share the prepaid with other people in my house. It goes off randomly and now my freezer is spoilt. When I took it to the repairers in Takoradi, the boarding fee was GH¢20 and the servicing charge was GH¢600. I have left it with them because I did not have the money to pay. If it wasn't for the frequent power cuts, I will at least get some little money from selling the ice blocks and by 2 years time I would have gotten money to pay back the loan little by little." (Fati Kaba, 55 years old female- provision shop owner- tenant)

3. Livelihoods and Mobility

We have the Ahantas, Nzemas, Anlos, Twis, Gas, and Muslims. This town has every tribe in it. The Muslims have even come in their numbers and have come to stay for good. (Abrewa Aku Esi, 34 years old female -fish monger- youth focus group)

New Takoradi is an indigenous town that has historically been populated by the Fantes, and as earlier indicated this is traced to the relocation of the Ahantas following the construction of the Takoradi Harbour. Currently, there is a mixture of people from different tribes - Ahantas, Nzemas, Anlos, Twis, Gas, and Muslims- who have mainly settled in the lower town and some parts of the upper town. Though a few wealthy people out-migrate to settle with their family in rented or self owned houses, there are still a growing number of people coming from other parts of the country to settle in New Takoradi. The movement of people into and

out of the community can be largely explained primarily by economic reasons. For the out-migrants, it is mostly the desire to attain independent statuses as family heads, avoid conflicts associated with living in family/compound houses and also have a smaller (nuclear) family size to cater for. Although job opportunities remain limited in New Takoradi, new comers, who are mostly economic migrants seeking to create a livelihood on their own or find a job opportunity in Takoradi, cite the community's proximity to the CBD as well as the relatively affordable accommodation and easy transportation as the primary reasons for their relocation.

In addition, housing facilities such as kitchen, bathroom, etc and access to basic services including water, toilets, and electricity do not seem to be the primary considerations for potential residents to the community. This is often because people want to first secure accommodation due to the housing pressure in Takoradi. As a result, they often make payments, establish tenancy agreement with landlords and move in before realising that certain facilities and services are unavailable. In terms of the indigenes, while the youth of New Takoradi maintain a good sense of belongingness to the community, particularly with respect to the beach and football park, they appear to be willing than the elderly to permanently relocate to other parts of Sekondi-Takoradi. This may be largely explained by the scarcity of land and the deteriorating economic opportunities in the community.

Income-generating activities

The men go to the sea to fish because that is the work we do here basically but these days when they go they end up coming with sea crabs and smaller fishes which do not give the women any profit when we smoke and sell them. This is because of the oil drills which have polluted our sea off late. So now people do different types of trade to earn a living. (Aunty Elizabeth, 48 years old female- fish monger who doubles as a bread baker- elderly focus group)

The main economic activity in New Takoradi is fishing, employing majority of the population. The males primarily go to sea while their female counterparts engage in fish smoking, buying and selling of fish (including frozen fish) and trading in fish related commodities. Unfortunately, because fishing is a seasonal activity the population is usually unemployed for most parts of the year. More recently, following the discovery and exploration of oil and gas in commercial quantities at the Tano Basin of the Western Region, the fishing industry is increasingly collapsing with declining economic fortunes. Residents often linked this to the release of chemicals in the sea reducing the amount of catch, and the generally high cost of living in the metropolis. These developments have led to the emergence of informal sector income-generating activities in both the lower and upper towns, while several others move to other parts of the city, Sekondi-Takoradi, to do business. Particularly, the younger men work in the flour, cocoa, and cement (GHACEM) factories and at the harbour as load carriers while others work as micro finance agents, mechanical engineers, taxi and trotro drivers, security workers, cassettes and CDs vendors, and artisans and labourers in construction companies or sites. Similarly, the young women engage themselves in bread baking, cleaning services (at Zoomlion), dressmaking, hairdressing, and petty trading in mobile phone credit and chip, cooked food, table-top and container store as

well as promotional products like toiletries, and consumables. The home-based enterprises are mostly concentrated and highly visible in the high density areas of the lower town though it is spreading fast to the upper town especially where a lot of extension works are ongoing.

The virtual collapse of the fishing business implies that other ancillary workers and service providers such as boat making craftsmen, cooked food vendors, and oil suppliers are out of business. In the same way, landlords who increased their rental opportunities by renting their rooms for shorter periods to the visiting fishermen have lost their jobs. Also, the community market is currently less vibrant as the trade in fish that acted as an attraction for other city traders has been demagnetized, and as a result, a growing number of women who plied their trade in the community market are now reverting to the frontage of their homes and along the main streets. While the oil industry has led to the emergence of certain construction companies and training centres in New Takoradi, the majority of these businesses and services are owned by multinational firms who employ staff living outside of the settlement. In most instances, these workers are recruited in Accra, trained and brought to the companies. Thus, the economic opportunities created by the oil exploration have attracted people from other parts of the country to the settlement. Nationals of other countries such as Nigeria who possess the types of skills needed in the oil and gas industry have also found their way to the community to seek jobs. For the indigenes of New Takoradi this is a worrying development and though negotiations have been made by the chief and assemblymen (of the lower and upper towns) for the companies to consider natives (especially the youth) as part of the local content arrangement, not much has been achieved.

Service availability and income-generating activities

As earlier indicated, availability and accessibility of services such as water, electricity and toilet/sanitation facilities pose major challenges to income-generating activities in New Takoradi. In terms of electricity access, the introduction of the prepaid meter system coupled with the frequent and unannounced power outages interrupt business activities and damage electrical equipment including hair dryers, freezers, etc that are used for business. For instance, some categories of workers including the bakers, tailors, etc sometimes have to travel to central Takoradi in order to complete their work to meet deadlines with their customers, whereas those whose work directly depend on electricity such as hairdressers, barbers, iced block and frozen fish traders experience operational shut down which leads to loss of income. As a coping strategy, few business owners have acquired generators to keep their businesses running constantly and this is subtly shifting customers from poorer business owners who cannot afford generators or top up their prepaid meters before they run out of credit. Also, jointly sharing power with other business operators or shops is associated with issues of overconsumption, uncertainty about next top-up and financial unpreparedness of some users during top-up, all of which negatively affect business operations.

Similarly, the case of water has tangible economic bearing on income-generating activities. For instance, during periods of water scarcity those whose livelihood largely depend on water such as the cooked food vendors pay extra cost to obtain water for cooking which reduces their profit margins and diverts human resource and working time to non-profit activity. In

most cases, the long distances to the water sources lead women and children to spend much of their time fetching water at the expense of their businesses and schooling. Large households spend sizeable amounts of their income to buy water and those whose working hours do not allow them to spend time fetching water contract others to collect water at a cost on their household income. In the face of irregularities in water supply and for quality concerns, some residents resort to the drinking of sachet water which is quite expensive for families with large household sizes and those who engage in low earning jobs.

Although with less tangible economic bearing, the impact of toilet/sanitation to a large extent negatively affects income generating activities. Just as in most houses, a lot of business facilities in New Takoradi do not have toilet facilities, and as public toilets may not be located near an individual's workplace, residents often resort to open defecation on the beaches in the early mornings in order to avoid having to attend the distant public toilets while at work. Not only does this keep the beaches in a bad state but more importantly, it affects fishing activities which form the primary occupation of the local economy. Others also go to work to meet "flying toilets" (polythene bags containing toilet) in front of their shops and smoking huts. In addition, the cost of accessing a public toilet reduces household income that could be invested in income-generating activities. Beyond excusing oneself to attend nature's call whiles at the workplace, the mobile phone plays a key role in keeping customers in touch with business owners who might have temporarily ceased their economic activities or closed their shops while they go on short errands within the community or in the city centre.

Urban transport, mobility and income-generating activities

Getting a car is not the problem but the fares are our problem. They said they have increased the prices of petrol. At first the taxis charged GH¢1 but now the taxis take GH¢1.20 from here to Takoradi whiles the public transport (trotro) is GH¢0.70 if you board a car at Kwesimintsim and its environs to New Takoradi. We those here in the lower town even don't get the trotro, if your money is not enough for taxi then you will have to take a long walk to the station at the upper town to get trotro to board (Auntie Akuoko Nuabah, 42 years old female- hairdresser who doubles as a fish monger-elderly focus group).

New Takoradi has good transport links to other parts of the city, and most residents in the upper and lower towns rely on public transport in the form of trotro (local minibuses) and taxis. These means of transport provide easy access to traders, particularly market traders who normally travel early in the morning (at 4:30am) to the Takoradi market circle to purchase goods, and commuters who usually return late evening (at 9:00pm) from work in other parts of the city. The problem with the trotro transport relates to inadequate number of vehicles which leads to long queues during the peak periods, in the mornings where school children normally create long waiting times and in the evenings when workers return from work. Also, the bus terminal or trotro station is located in the upper town and residents from the lower town have to walk a considerable distance to be able to access the trotro or wait in the lower town and risk getting spaces on the bus, and this is worrying especially in the early

hours of the day. For these reasons, although expensive, people tend to use taxis particularly when they are pressed for time to catch up business transactions or carrying bulky goods on a return journey.

Another challenge is that, the public transport system has recently been witnessing fare increases due to increasing petrol costs (as is the case in other parts of the country), and this rising price of trotro and taxi fares is exerting a burden on income-generating activities and reducing profit margins. Consequently, bulk purchasing (at most twice weekly) is considered more profitable particularly by those engaged in home-based enterprises as they try to reduce mobility and transport related cost. Also, individuals tend to reduce daily visits to the market circle and complement it with purchases from the traders who are mostly located within walking distances from home in order to reduce mobility time and cost. The same can be said for those who used to frequently visit friends and families in other parts of the city and beyond (including rural areas), as they now use the mobile phone to break spatial and temporal barriers and stay connected, thus ensuring minimal movements.

It must be added that, the road network in the community also provides access route to heavy duty trucks that carry goods to and fro the the port, flour mills and cement factory thereby contributing to large scale economic activities. This probably relates to several decades ago when the railway transport was functional in the community, and connected the area to places such as Kumasi, Accra and Tarkwa and also transported people and goods in a cost effective and time efficient manner. Thus, apart from offering livelihood and job opportunities to residents, the railway system also allowed people to transport bulky goods over long distances at cheaper costs, and without requiring personal travels.

Voices from New Takoradi: Livelihoods and Mobility

"At first people moved with the trains up and down. Every morning, you hear the sound of the train which tells you it is 6am. Even hearing the train tells you your mother is coming so you run to meet her to take her things. But today, you don't hear any sound from the sleeper or express train. Now things have changed, there is none here. When I was a kid and the express comes, even if I am asleep, I wake up to meet my grandmother who brings the bread from Kumasi which has the inner part of yellow and green to eat. Today it is different. We have to queue and sometimes rush for cars, and the trotro and taxi fares are killing us." (Maame Araba Akronfi, 45 years old female-fish monger-landlady)

"When we started this town and our fathers were working as fishermen, it was good but now we don't get fish and our children can't get jobs to do. Our youths don't work, they live on hand to mouth basis. Unless they go to Sekondi, Axim, and Adina before they buy the fishes to this town. They sometimes even go to Tema. This means that they have to take their work materials there which become expensive making them incur losses. But at first it wasn't so. Before, when you buy fish for GH¢0.50 you get 2 pieces but today with the same price, you will have to be arrested. When they said there are jobs here, they have gone to bring in another tribe like Ashanti's into this town. When they started with the harbor, they took in other people to do the work. The

cements which are manufactured here too produce so much dust that makes us sick and we don't get medicines to take care of ourselves. People have been coughing and meanwhile we don't see any benefits here only suffering." (Henry Kwadwo Afful, 74 years old- male- former officer- homeowner)

"The oil which has come here, they employed others like the Ashantis who do not know how to swim to come and work here. And we fishermen who know the sea works are not picked up. And because of the oil, it has caused the fish stock to dwindle and which is really making us suffer. So they should help us for work to come here. The oil is making us face hardships. Our husbands go and do by day jobs before they get money for the family. We cannot pay school fees and other bills. A child who has completed junior high school and to move on to the senior high school cannot go because of money." (Mina Ama Bois, 36 years old female- fish trader- familyhouse)

"From what we see things will be worse, because the sea is already taking over our homes and no sea defense wall exists. The youth have no work to do because our leaders employ people based on connections. Ghacem's pollution is killing us. I don't see any better future for New Takoradi because the sea is taking our land and the dust is entering our homes." (Samuel Amoah, 78 years old male- retired mechanical fabricator- household head)

4. Future Challenges

- Land scarcity in New Takoradi has increased over the years and this has characterised the housing stock with unaffordable houses/rooms, and residential overcrowding. The housing situation is worsened by the discovery and exploration of oil and gas in commercial quantities in Sekondi-Takoradi, leading to migration of local and foreign nationals into New Takoradi. In the wake of increasing demand for housing units than available stock, landlords have resorted to evicting tenants and converting residential apartments into stores and offices. The housing condition and attendant problems are likely to persist if the situation described above is left unattendedto.
- Fishing has historically contributed to the vibrant local economy of New Takoradi, an indigenous coastal community, though this livelihood strategy and its economic virtues are fast declining. Notwithstanding the emergence of oil related businesses and other income-generating activities in the community following the oil discovery, unemployment, particularly among the youth, persists. Technical training of youth in oil-related jobs, government support to the fishing industry and revamping of the community market were highlighted as the way forward to improving living conditions.
- New Takoradi lacks several facilities and resources and among them are four major ones which have been highlighted by the residents; expansion and revamping of community market that will reduce mobility and transport cost; establishment of cold store centers that will support the fishing industry; recreational spaces that can be used for sporting activities; and a police station to control crime and maintain peace and order in the community.

- Currently, although access to services such as water, electricity and toilet/sanitation facilities is not in their best state, it is not a major factor in decisions to move out of New Takoradi probably due to the housing pressure and because these conditions are common in most low-income settlements. That notwithstanding key services are in need of upgrading, and the priority for such improvements are as follows:
1. Water: residents expect that water supply should be reliable and affordable, and landlords should make it accessible to all, as this will decrease household expenditure on water and increase income for economic activities.
 2. Electricity: the pre-paid meter system should be made more user- friendly, less expensive and service quality must be improved as this will reduce disputes among household members and support economic activities.
 3. Toilet/Sanitation: owners of houses should be encouraged to provide toilet facilities in their dwellings, and public toilet and sanitation facilities should be improved to curb open defecation and dumping at the beaches and openspaces.
 4. Local Transport: the heavy duty trucks from the harbour and cement factory are exerting a considerable damage on the road infrastructure, and activities from the factory and other companies pose health and safety concerns. This must be addressed with the rising cost of public transport (trotro and taxis) which places a burden on household income available for other income-generating activities.
 5. Mobile Phone Signal: the signal quality is unstable and is comparable to other areas of Sekondi-Takoradi, though this is not a major area of concern.

Settlement Summary 2: Kwesimintsim

1. Background

Formerly the Kwesimintsim town was the only area we had but with time people started buying lands here one after the other and this place has developed. Before, this place was full of coconut trees but now this place is full of houses. In addition to the town proper we now have the Sofon zongo and Sabon Zongo areas (Aunty Theresa Baidu, 60 years old female, Form four leaver, Trader).

Kwesimintsim is a low-income/mixed neighbourhood located on the Western edge approximately 5 kilometres from the city centre of Takoradi. The settlement was established in the early 1930s in the indigenous core (Kwesimintsim old town). It is under the Effia-Kwesimintsim constituency and is bounded on the west by Aprembo, on the east by Takoradi, on the north by Anaji, and on the south by Airport Ridge. Historically, Kwesimintsim was first settled by a family of Ahantas and the name of the present settlement "Kwesi- mintsim" is literally translated as "I can't go any more I will stay here" and this is traced to the name of the founding father PapaKwesi.

Kwesimintsim is a densely populated area and the settlement has been experiencing population explosion over the years from 9,747 in 1970 to 13,852 in 1984 and 20,024 in 2000³. According to the results of the 2010 Population and Housing Census, the population of Kwesimintsim in 2010 had doubled to 47,211. This rapid growth in population is largely explained by the previously available lands and affordable accommodation, the central location of the settlement particularly for those who worked in the commercial areas of Takoradi such as Ghacem, and the cocoa and timber industries. In addition, the recent economic developments in the oil economy that have occasioned the influx of migrants into the Sekondi-Takoradi metropolis who find accommodation in Kwesimintsim (popularly referred to as 'K') and seek economic opportunities in the oil and its related sectors such as trade subsector cannot be overlooked.

The community's rapidly growing population has occasioned the subdivision of the area into Kwesimintsim town, and the Sofon zongo and Sabon zongo meaning old zongo and new zongo respectively. These geographical zones are used as electoral areas. Although the settlement is ethnically heterogeneous, in term of the spatial organisation the indigenes predominate in the old town, while the Muslims are predominant in Sofon zongo with a more visible migrant mix in Sabon zongo. Sabon zongo has latest buildings and modern layouts whereas Sofon zongo is more like a slum, where access routes are lacking and this becomes a challenge when there is fire outbreak. In terms of the landscape, the old town is separated from the zongo areas by the Takoradi-Tarkwa arterial road while the Obiri road and Assakae road separate the Sofon and Sabon communities respectively. Currently, Kwesimintsim is challenged by the plight of increased population pressures and outmigration of wealthier

³ Ghana Statistical Service, 1970 Population Census; Ghana Statistical Service, 1984 Population Census; Ghana Statistical Service, 2000 Population and Housing Census, Ghana Statistical Service, 2010 Population and Housing Census.

community members to suburban locations, and this partly explains the community's predicament in terms of the deterioration of its housing stock, particularly older single-storey buildings and compound houses made from mud in the older sections of the community. Moreover, what was formerly a well planned built environment is becoming more densely populated and spatially disorganized.

The neighbourhood dynamics are complex and central to land issue in the area, which is that there are no available plots of land for development. That notwithstanding, there are some vacant and undeveloped previously acquired lands as well as small plots of family lands in the settlement that are managed by appointed members who are authorised to sell and issue receipts on behalf of the family heads. Residents recounted that such lands could sell between GH¢20,000 - 50,000. The rising unemployment has triggered the ingenuity of the youth who work as middlemen or estate agents by liaising with landowners and advertising the property regarding negotiation of the price of property and in addressing other necessary conditions and documentation. They charge prospective buyers a non-refundable registration fee of GH¢20 to cover transportation and communication cost of visiting the site. After the land has been purchased, they take a 10 percent share of the total cost of the land from the buyer before the documentation process begins. There are cases where the chiefs also act as agents for prospective buyers who want large acres of land (sometimes 10-15 acres) from the neighbouring peri-urban areas for development, and in such instances they pay about GH¢50 to the chief of the town before they can inspect the land.

2. Housing and Services

Rent is not easy here. In the house where I stay the landlords are about 8, they are siblings. It was their father who left the house for them and at my side, the older sister lives in Tema so she compares the prices in Tema and Accra and increase the rent on a yearly basis. This year it went to GH¢40 from the previous amount of GH¢30. The landlords are now too business minded (Daniel, 29 years old male, SHS graduate, Attendant at Takoradi Post Office).

For the past few years that Ghana discovered oil here in Sekondi-Takoradi it has really impacted our rent issue because this place is the center and we the people here brought about the name oil city. By this, landlords have been increasing rent anyhow. In 2 month a landlord can increase his rent from GH¢40 to GH¢60 and if you complain he will ask you to vacate the room because his son is coming back home from abroad but before you realise somebody, who may be a distant relative of the landlord and who may be working in an oil company has come to occupy the place. So the rent is really disturbing us and if you can help us we will be grateful (Rashid Sakodia, 28 years old male, University graduate-Regional Maritime University- Maritime engineer as a Sailor).

The increasing population growth alongside the changes in the built environment, have caused numerous problems such as pressure on housing and available infrastructural services. The housing problem in Kwesimintsim can be described as that characterized by excess demand over supply, reflecting the national supply-demand trends. Similar to other parts of

the city, majority of the residents in family houses are either longtime owner-occupiers themselves or relatives as they ensure the security of the property. Also, there are cases where a few wealthy members out-migrate to rent or build their own houses at the city fringes and still retain ownership of their rooms in the family house. In most cases, some rent out such vacant rooms to tenants to generate income towards the maintenance of the building or acquisition of new property, while a few also maintain them as their second residences, suggesting regular individuals who may have moved from their family homes in the core areas of the city to the peri-urban areas still have a foothold there. However, the indigenes resident in the core areas complained that was weakening family ties and values. On the average, there are 10 rooms per house though there could be as many as 20 rooms, with between 8 and 25 persons per household.

The housing types in the neighbourhood are dominated by single rooms and multi-occupied large housing blocks (compound houses) mostly made of mud, with the outer parts cemented to appear like block houses. The spatial differentiation becomes evident as one moves away from the old town where the compound houses are dotted with few single-storey mud buildings towards the inner part, and Sabon zongo where there are a lot more sandcrete-block compound houses and architecturally latest multi-storey buildings. Also, unlike in Sabon zongo where some residential structures are undergoing gentrification with most of the buildings along the Takoradi-Tarkwa arterial road being converted into commercial spaces (Ahantaman bank, microfinance and insurance offices, etc) and frontage shops, Sofon zongo (that is more densely populated) is experiencing a lot of uncontrolled development and encroachment on public spaces including the roads and markets (see figure 2.1). It is common to find vehicles and pedestrians meandering through the area as the streets are very narrow and the alleys are only large enough for a person at a time due to trading activities along them. This is a potential hazard as the layout may not permit entry by emergency services in the event of a fire outbreak.

The pressure of demand on housing, combined with the scarcity of land, have affected rental arrangements as there is a general increase in rent levels especially with the coming in of oil (related) migrants. While the cost of a chamber and a hall usually ranges between GH¢150 and GH¢200, a single room costs approximately GH¢40-50 a month. In addition, potential tenants must pay for a minimum of 2 years advance which is equal to GH¢960-1,200 (for a single room) and this comes as a burden on the earnings of tenants who also have to pay a fee to the middlemen (10 percent of total rental cost) who assisted them in getting the rooms. In some cases, landlords use the rent payments to make extensions to their buildings while others upgrade the existing buildings, and this, in addition to reducing the chances of poorer ones getting accommodation and encouraging squatter housing (wooden structures and container kiosks), results in the increased incidence of evictions. It is also a common practise for landlords to convert facilities such as kitchen, bathrooms and store room into sleeping spaces to increase their rental income. Residents mentioned that homeowners who do not allow tenants to pre-finance the renovation of their properties are mostly oblivious of the call for maintenance of buildings that are in dire need of structural repair, whereas homeowners who allowed such renovation works by occupants tend to frustrate them by frequently

increasing rent fees as a way of recouping the invested amount instead of giving occupants rent free months.

Figure 2.1: A single storey unit serving as shops (at ground floor) and sleeping spaces (at top floor)



Source: Field work, 2014

Excess demand over supply of housing makes it difficult for many households to afford decent housing. One of the ways people overcome such challenge is for a group of people to contribute to erect a container or wooden store on available space that can be used for their economic activities during the day and as a sleeping space at night, or cohabit with extended family members. Although, this strategy helps a lot of people to survive, it comes with a price to the wider community and that is overcrowding and its attendant problems such as poor ventilation and easier transmission of infectious diseases, uneasy access routes, blocking water ways, and inhibiting smooth expansion of roads and gutters by municipal authorities. Overall, it puts excessive pressure on the already limited and overstretched infrastructural services such as water, electricity, and toilet/sanitation.

Water

When it comes to pipe water we suffer because it can take about two weeks or 1 month before the taps will be opened and even they don't open it in the day time when you can fetch but at dawn when you are sleeping. So some of us have wells in our homes and those who don't have pay GH¢0.20. This is water you can't even drink (Mohammed, 28 years old male, NVTI graduate, Staff at Ghana Ports and Harbour Authority, Takoradi).

The water supply landscape of Kwesimintsim is characterised by a mix of areas without water supply, and those with erratic and unreliable supply. These deficiencies are felt disproportionately among residents, for instance, in the old town where coverage is relatively good the service is increasingly unpredictable and unreliable, whereas in the zongo areas access is comparatively poor as a result of the inadequate infrastructure that connects pipe to Ghana Water Company Limited (GWCL), and low pressure (land configuration) and as a result residents rely on private vendors. On the whole, majority of households access water through multiple sources such as pipe connection from GWCL, water vendors, well, rain water harvesting, and sachet water, for their drinking and domestic purposes.

Water supply in the community is dominated by private vendors who store in reservoirs and polytanks. Vendors (mostly landlords and old residents) who operate within or very close to their homes usually 5-15 minutes- walk, have space on their dwelling for their operations. They connect to the public water supply network directly and pay monthly bills between GH¢120 and GH¢300 to GWCL through the metered billing system. Water is sold to the public at GH¢0.30 per 34 litre bucket, but in times of severe shortages when vendors source water from tanker operators, the same quantity sells for GH¢0.40. Similarly, there are a few community standpipes where residents access pipe water at GH¢0.20 and vendors sometimes complain that they do not cover their operational costs of water and this is worsened by family members (and cronies) who use large quantities of water without paying. In addition to the pipe water source, virtually every house in the older sections of the settlement and some parts of the zongo areas has a bore hole and if there is none in the dwelling, household members access water from nearby wells at a cost (GH¢0.10), and in some cases for free depending on one's family ties and social networks.

It is interesting to add that in cases where there is an in-house pipe, the facility is owned and controlled by the landlord and household members together with other members of the neighbourhood access it at a fee. At such facilities, the 20-litre jerrycan locally known as *Kufuor* gallon costs between GH¢0.30 and GH¢0.40. Large households spend sizeable amounts of their time and income on accessing water, and a family of five can spend between GH¢1.50–2.00 on pipe water and GH¢1.20 on well water per day, exerting a burden on income-generating activities and reducing profit margins.

Toilets/Sanitation

When it comes to our toilet, this time, it is a bit ok because each house has been authorized to build one. But the public toilets are inadequate because many people here still rely on them and it is good to have the commercial one in every town especially for travelers. With our bola, (dump site) formerly it was very bad but now it ok. Previously it could be left for several months without disposal but now thanks to our assembly woman and others they dispose it when it gets full (Emmanuel Yani, 28 years old male, University graduate, Safety officer at Internal logistic).

Access to toilet facilities and sanitation services remains a long-standing problem to residents in Kwesimintsim. Two main types of toilet facilities are available in the community. First is the private in-house toilets type usually in the form of a Kumasi ventilated improved pit

(KVIP) or water closet (WC) provided by landlords. Majority of the landlords keep the toilets locked for their immediate family to use them, while others allow some tenants and neighbours to use the toilets for a fee. Secondly, are public and private (commercial) toilets usually in the form of WCs, KVIPs and latrines. The public ones (managed by the local assembly) are not well maintained and generally smelly with a user charge of GH¢0.20 on each visit. Contrarily, the private commercial toilets are clean with virtually no stench and they charge user fees of between GH¢0.30 and GH¢0.40 per use, depending on whether toilet roll or newspaper is preferred. Although majority of residents preferred such facilities only the well to do residents are able to access them.

To a large extent, the toilet problem is one of availability (adequacy), accessibility and affordability. Although residents admitted that government policy introduced in the mid 1990's requiring all homes to have at least one toilet had led to a reasonable increase in houses with detached toilets, the issue of inadequate access to toilet facilities is still pressing. The absence of adequate toilet facilities has occasioned a situation where residents spend long waiting times especially during the rush hours, before residents leave for work and school, and in some cases residents even travel to neighbouring areas to access facilities. Moreover, the economic hardship in the community makes accessing the public toilets unaffordable, especially for large households, and this leads to residents (including children) who seek to evade the toilet fees defecating in buckets and polythene bags which are later thrown into the gutter or garbage containers or neighbours' backyard (a common practice in the area). Notwithstanding the flies and attendant health impact this brings, the perpetrators explain their actions by the fact that most of the toilet facilities are distant and locked at night and the available ones are smelly.

Solid waste management is also a challenge as the old town and the zongo areas are currently served by only two dump sites. Not only do residents have to walk long distances to access these sites but the prices range from GH¢0.20 to GH¢2.00 per dump depending on the volume of waste, and this has influenced poor attitudes among residents who illegally dump in the gutter or backyard of other neighbours in the cover of the dark. Also, a few residents employ the services of informal waste collectors (*kaya bola*⁴) who collect household waste with their tricycles for a fee and later dispose them at the dump site. Overall, the toilet and sanitation problem connects to the central issue of lack of space for property development. Although some residents in the old settlements expressed desire to develop toilet facilities in their dwellings, they complained about the lack of available space. Similarly, acquiring appropriate land to site a community dump site remains a daunting challenge to the local authorities, and access to these services has implications on mobility and livelihood activities.

Electricity (power for charging mobilephones)

Last week I went to the electricity company of Ghana (ECG) to question them because they treat us like animals. I had an error on my card and when I went to the electricity company they noted down my particulars and asked me to come home. They failed to

⁴ *Kaya Bola* is an informal name for waste collectors who carry solid waste from residences and markets (in sacks, baskets, on push trucks, etc.) to a skip or dumping sites for a fee.

come for three days and I slept in darkness for three days. I had to get someone else to get it done for me at my own cost and it has been 3 months since I went there to report the case and they haven't been here (Chief of Kwesimintsim zongo- elders focus group).

I used to pay GH¢15 for a month because I was using a fridge, 2 fans and 4 bulbs. Now since they introduced the prepaid meters I am unable to use GH20 worth of credit for 15 days. They later came to renew the wiring and I am unable to use 15 cedis worth of credit for more than 5 days. I have reported the case to the electricity and they admitted it was a fault but for the past 6 months, they haven't been here. We are all facing similar problems with the prepaid (Chief of Kwesimintsim zongo- elders focus group).

Reflecting the national power supply situation, access to electricity supply in Kwesimintsim is relatively good as the majority of households are connected to the national grid, Electricity Company of Ghana (ECG). It is important to note that coverage or accessibility does not necessarily equate to reliability and affordability as these concerns have characterised power supply in the community. After the transition from the monthly metered billing system of electricity access to the prepaid metered system, power supply has rather become considerably expensive and less pro-poor thereby resulting in conflicts among household members. The prepaid system requires consumers to purchase credit on a card to be able to access electricity. Residents recounted that, unlike previously when a preloaded card of GH¢20 credit could guarantee a week's power supply, currently the same amount cannot suffice for three days. Most residents again expressed their dissatisfaction with the situation where they pay levies for street light (as a component of electricity consumed) when such facility is non-existent in their areas. The average household in Kwesimintsim now spends between GH¢80 and GH¢120 a month on electricity access and this is far more than they used to pay under the previous system, GH¢40-80 with more flexible instalment payments.

Moreover, the prepaid system is associated with numerous quality of service issues. The prepaid meters pose a lot of technical problems to residents which include; unstable currents, failure of meter to capture card reading for first time users, and non reading of meter and sometimes complete shutdown after inserting a preloaded card. Also most residents perceive that the prepaid meters read faster and consume a lot of current as compared to the previous system. In most instances, the meters read as 'card in alarm' mode and unfortunately the technicians at ECG appear less responsive to consumers who take up the challenge to call or visit the office to lodge their complaints. The technicians who visit residences to insert the master cards to redress such concerns charge between GH¢10-20 in addition to the transportation fare. Furthermore, the introduction of the prepaid system has witnessed frequent power outages (i.e. light off) which are common at the city and national levels, and lights could go off without warning on four to five occasions for varying lengths of time.

Rising cost, poor quality service and unreliable power supply negatively affect household cooperation. As earlier mentioned majority of the settlements are compound houses, with sometimes up to 10 households sharing one meter, and this results in the difficulty of predicting when the next top-up is due and agreeing how much each person or household is

required to pay. This is also exacerbated by the financial unpreparedness of certain households (members) to make contribution for the next top-up. Another problem with the multiple-ownership relates to disputes regarding overconsumption and aspects of who bears responsibility for fixing faulty meters. Undeniably, the intermittent and unannounced power outages damage electrical equipment including fridges and freezers and make preserved food stock inedible. In terms of mobile phone usage, poor electricity access also leads to difficulty in charging phones and this sometimes leads to charging at designated centers (who use generators) for a fee to be able to be connected to stay in touch with families and work colleagues. It must be added that, notwithstanding the poor state of services, new comers continue to seek accommodation in Kwesimintsim and this suggests that people tend to look beyond provision of services when considering where they would stay. The declining municipal services invariably interrupt income generating activities.

Voices from Kwesimintsim: Housing and services

As for 'K' (Kwesimintsim) if you need a land here you will not get because all the lands here are finished. It's now at the suburbs and there too it is for families and they have a representative who sells the land, if he sells it to you and you don't register and later he gets a higher price than what you offered then he sells it to another person and this mostly leads to police cases (Agnes Asaa, 55 years old female, Form four leaver, Lotto writer).

If you are to tell somebody about 'K' (Kwesimintsim) you should inform the person about the bad boys here. The name Kwesimintsim is already spoilt because if you go to Accra or Tema and you mention that you are from 'K' then people turn to be scared of you. Formerly when we talk of armed robbers it is here that you can find them, it is now that most of them have been killed and has reduced the tension if not this place was very hot. There are about three spots that they smoke 'wee' and if you don't know and you pass there they will snatch your bag or phone. It is now that things have calmed down due to the presence of the policemen (Aunty Theresa Baidu, 60 years old female, Form four leaver, Trader).

As for this area, the landlords keep increasing the rents. They take around GH¢30 - GH¢50 for single rooms so the issue of rent is very difficult. Some of the youth are grown now and need to separate themselves from their parents but now that they charge high rent the youth are not able to afford because they will have to pay electricity and water bills too (Grace Ofori, 46 years old female, Form four leaver, Trader).

The issue of rent here is very disturbing, the landlords are cheating us. I have a friend who used his money to complete a single room and after he occupied the place it did not take him 4 month then the landlord increased the rent. He did that continuously and my friend had to vacate the room in less than two years. So the issue of land and housing is worrying us, you should do something about it for us (Labi, 31 years old male, Technical school graduate, Driver).

The water is sold at GH¢0.20 per bucket and you will have to fetch in the mornings to bath and evening to cook. When you dump your waste they charge GH¢0.50, and now they said very soon they will use a measuring scale to determine the weight of your waste before they decide how much you pay (Diana Boateng, 26 years old female, JHS leaver, Hairdresser).

When I visit the toilet I pay GH¢0.20 and my children like this if they go to the public toilet and I give them GH¢0.10 each they sack them back home. And they also charge GH¢0.20 for dumping if your waste is small. So people rather go to toilet and dump them in their waste and dump all in the gutter, and yesterday when it rained the bola (waste) covered the street and they came to clear them so that also disturbs us a lot (Gladis Ayariga, 39 years old female, Elementary school leaver, Unemployed).

I am an electrician ... and for the pre-paid meters what we now see on the meter is 'card in alarm' and when you complain they don't do anything. Each house is supposed to have a master card so the people will be trained on how to use it but they don't do that. Some ECG personnel in Kwesimintsim here when you call them they come at their own time and they have a fixed charge of GH¢10 meanwhile they are not supposed to charge any fee and when we are doing our illegal connection they ask us to stop (Kwame Asare, 24 years old male, Junior High School graduate, Electrician).

3. Livelihoods and Mobility

We are from different tribes but we all stay here in the zongo and the natives stay in the main Kwesimintsim town. We have people belonging to about 23 tribes here. In the zongo, for example, we have the Mossi, Dagomba, Hausa, Wangara, Zamrama, Sisala, Fulani, Gawu, Kotokoli, Anlo, Tsikosi, Gonja, Frafra, Ga, Kwahu, Assin, Akan, Fante, Ewe, Akyem, and other tribes all in the community (Chief of Kwesimintsim zongo-male elders focus group).

Kwesimintsim is an indigenous town that has historically been populated by the Ahantas. Currently, there is a mixture of people from different tribes - Ahantas, Nzemas, Anlos, Twis, Gas, and including a number of the tribes in the Northern regions who are predominant in Sofon zongo and Sabon zongo. Though a few wealthy people out-migrate to settle with their family in rented houses or self acquired homes, there is still a growing number of people coming from other parts of the country to settle in the community. The movement of people into and out of the community can be largely explained by Kwesimintsim's combination of good transport links to key commercial centres and relatively available accommodation.

Essentially, Kwesimintsim's emergence as a migrant destination is linked to the housing dynamics mentioned above (a lot of infilling and extensions), which in turn have implications for residential mobility out of the settlement. For the out-migrants, it is mostly the desire to attain independent statuses as family heads, avoid conflicts associated with living in family/compound houses and also have a smaller (nuclear) family size to cater for. Although job opportunities remain limited in Kwesimintsim, new comers who are mostly economic migrants seeking to create a livelihood on their own or find job opportunities in Takoradi, cite

the community's proximity to the CBD and easy transportation links as well as the relatively available accommodation as the primary reasons for their relocation.

In addition, housing facilities such as kitchen, bathroom, etc and access to basic services including water, toilets, and electricity do not seem to be the primary considerations for relocating to the community. This is often because people want to first secure accommodation due to the housing pressure in Takoradi, and as a result they often pay rent advance, and enter into tenancy agreements with landlords before realising the unavailability of certain basic infrastructural services. In terms of the indigenes, while the youth of Kwesimintsim maintain a good sense of belonging to the settlement, particularly with respect to the good transport links and how busy the area is, they appear to be willing than the elderly to permanently relocate to other parts of Sekondi-Takoradi and Accra. This may be largely explained by the scarcity of land and the deteriorating economic opportunities.

Income-generating activities

For here we don't have a particular job that employs people. Formerly we used to have lands and so if not anything one can do a small backyard garden but now there is no land available. As a result we are all in the survival of the fittest pool, that is when you get a place you put down a kiosk or table top and sell foodstuff or consumables, or provisions or you check to see what people will buy then you sell (Awura Ama Sabina, 33 years old female, TUC Vocational level, Trader).

Now the Takoradi town people are turning their buildings into stores and shops and so they are ejecting the tenants who find nowhere than Kwesimintsim. For here, if you convert a room into store, you will not make enough profit but in town, business is good and they make good profit. So if you look at it the monthly rent of GH¢30-40, is small compared to how busy the CBD is, so that is why they eject people (Fuseini Alhassan, 62 years old male, Technical school graduate, Businessman).

A smaller section of the working population earn a living from the few formal businesses in Kwesimintsim such as Ahantaman bank, microfinance and insurance companies, utilities (electricity) retail outlets, pharmacies and hotels, though this is a relatively recent addition to the local economy. A greater majority of the residents move to other parts of the city, Sekondi-Takoradi, to do business. Particularly, the younger men work in the flour, cocoa, and cement (GHACEM) factories and at the harbour as load carriers while others work as teachers, nurses, bankers, secretaries, micro finance agents (mobile bankers), mechanical engineers, and shop attendants.

Similar to other parts of Sekondi-Takoradi, numerous informal sector economic activities also take place in Kwesimintsim in both the old town and zongo areas. For instance, selling fast-food and other kinds of cooked food is a prominent feature of the landscape, particularly in the densely populated areas behind the main roads where the bus stop, bank and financial companies, and larger retail stores selling clothes, shoes and other household appliances can be found. Alongside drinking spots, containers selling provisions and cosmetic (make-up)

products are highly visible, as are foodstuff sheds, mobile phone credit kiosks, dressmaking shops, hairdressing salons and sachet water stands. The female population primarily undertake these income-generating activities as majority have secured loans from local microfinance companies with the help of their assemblywoman, while their male counterparts typically earn an income as lotto writers, tailors, barbers, taxi and trotro drivers, footwear merchants - local (Ashanti made) shoes, security workers, cassettes and CDs vendors, artisans, electrical repairmen, mechanics and through pettytrading.

In some cases income from these activities is sent back to the migrant's village to be reinvested in the family business, which is deemed more beneficial than sending money purely to assist with subsistence. As land is becoming scarcer, disputes over who is entitled to ply trade on available space outside a property are increasing, as some landlords prevent tenants and neighbours from running a home-based enterprise from their property. Importantly, while the oil industry has led to the emergence of certain technical training centres in Kwesimintsim, the majority of these businesses and services are owned by multinational firms who employ staff living outside of the settlement particularly Accra. Thus, the economic opportunities created by the oil exploration have attracted people from other parts of the country to the settlement. Nationals of other countries such as Nigeria who possess the types of skills needed in the oil and gas industry have also found their way to the community to seek jobs and this is a worrying development for most indigenes.

Service availability and income-generating activities

As you know, previously, they used to inform us before the lights went off but now it is not like that they can off it from morning 6am to 10pm and some people use freezer to sell iced-water, cocoa drink and that gives them their daily bread. But with the current light off situation they can't work as before (Grace Ofori, 46 years old female, Form four leaver, Trader).

... What should we do to the money we borrowed to finance our work since the water is not flowing. How can I pay my lenders? We are pleading that the authorities see to it that the situation is reversed and we get to the good old days (Diana Boateng, 26 years old female, JHS leaver, Hairdresser).

As already mentioned, accessibility and affordability of services such as water, electricity and toilet/sanitation facilities pose major challenges to income-generating activities in Kwesimintsim. In terms of electricity access, the introduction of the prepaid meter system coupled with the frequent and unannounced power cuts interrupt business activities and damage electrical equipment including hair dryers, fridges, and freezers that are used for economic activities. For instance, some categories of workers including the tailors and dressmakers, etc sometimes have to travel to central Takoradi in order to meet appointments with their customers at an added cost, whereas those whose work directly depend on electricity such as hairdressers, barbers, provision shop owners experience operational shut down which leads to loss of income. To overcome such challenges, few business owners have acquired generators to keep their businesses running constantly and this is subtly shifting customers from poorer business owners who cannot afford generators or top up their prepaid

meters before they run out of credit. Moreover, sharing power arrangements with other business operators or shops is associated with disputes over unequal consumption, uncertainty about next top-up and financial unpreparedness of some users during top-up, all of which negatively affect business operations.

Similarly, the case of water has tangible economic bearing on income-generating activities. For instance, during periods of water scarcity those whose livelihood largely depend on water such as the fast food and cooked food vendors pay extra cost to obtain treated sachet water (which is more expensive than water sourced from a pipe or well) for cooking thereby reducing their profit margins and diverting human resource and working time to non-profit activity. In most cases, the long distances to the water sources lead women and children to spend much of their time fetching water at the expense of their businesses and schooling. Large households spend sizeable amounts of their income to buy water and those whose working hours do not allow them to spend time fetching water contract others to collect water at a cost on their household income. In the face of water supply irregularities and quality concerns, some residents resort to the drinking of sachet water which is quite expensive for families with large household sizes and those who engage in low earning jobs.

The economic impact of sanitation on income-generating activities is often indirect, albeit very real. Just as in most houses, a lot of business facilities in Kwesimintsim do not have toilet facilities, and as public toilets may not be located near an individual's workplace, residents often defecate in the gutters and polythene bags in the early mornings in order to avoid having to attend the distant public toilets while at work. Others also go to work to meet "flying toilets" (polythene bags containing toilet) in front of their shops which send negative signals about such businesses. In addition, the cost of accessing a public toilet reduces household income that could be invested in income-generating activities. Beyond excusing oneself to attend nature's call whiles at the workplace, the mobile phone plays a key role in keeping customers in touch with business owners who might have temporarily ceased their economic activities or closed their shops while they go on short errands within the community or in the city centre, Takoradi.

Urban transport, mobility and income-generating activities

Apart from the main road leading to the town, the ones in the community have all deteriorated. Recently, they started attending to some portions with gravels and they added coal tar just last week. Our gutters are always choked with takeaway toilets and rubbish, and the water doesn't drain and it breeds mosquitoes. It is the rains that sometimes carry them away but to where I don't know because the sea is far from here. We don't have a city council so nothing is being done about it. ... There is one thing that they have done but it is not complete that is our traffic light. When it works today it goes off for about three months. When you say it on radio for them to hear they tell us it's the bulb (Bashiru Abdulai, 37 years old male, Form 3 leaver, Driver).

Kwesimintsim has good transport links to other parts of the city, and most residents in the old town and zongo areas rely on public transport in the form of trotro (local minibuses) and taxis. These means of transport provide easy access to traders, particularly market traders

who normally travel early in the morning (at 4:30am) to the Takoradi market circle to purchase supplies, and commuters who usually return late evening (at 9:00pm) from work in the regional capital and its environs. The challenge associated with the trotro transport relates to inadequate number of vehicles which leads to long queues during the peak periods, in the mornings where school children normally create long waiting times and in the evenings when workers return from work. Also, the bus terminal or trotro station is located just along the main road and residents from the inner parts of the settlement have to walk a considerable distance to be able to access the trotro or wait in their respective locations and risk getting spaces on the bus, and this is worrying especially in the early hours of the day. For these reasons, although expensive, people tend to use taxis particularly when they are pressed for time to catch up business transactions or carrying bulky goods on a return journey.

Another challenge is that, the public transport system has recently been witnessing fare increases due to increasing petrol costs (as is the case in other parts of the country), and this rising price of trotro and taxi fares is exerting a burden on income-generating activities and reducing profit margins. Where possible, residents try to reduce mobility and transport related costs by generating maximum returns from minimal movement. For instance, bulk purchasing (at most twice weekly) is considered more cost-effective particularly by those engaged in home-based enterprises. Also, individuals tend to reduce daily visits to the market circle and complement it with purchases from the traders who are mostly located within walking distances from home in order to reduce mobility time and cost. The same can be said for those who used to frequently visit friends and families in other parts of the city and beyond (including rural areas), due to the long and often uncomfortable journeys involved and because they now use the mobile phone to break spatial and temporal barriers and stay connected, thus ensuring minimal movements. Thanks to the mobile money portal, a platform for transferring and receiving cash, most residents are able to send money to their children in schools and families in hometown.

Voices from Kwesimintsim: Livelihoods and Mobility

I will not blame the youth much because if they get work the bad attitudes will be minimized. For instance, if they have a job that pays even GH¢200 at the end of the month they will use it for something. Looking after your child to finish SSS and not getting job to do, and not taking care of the child's education which one is better? (Grace Ofori, 46 years old female, Form four leaver, Trader).

As my sister said most of us have gone for loan and the young girls now sell ear rings, panties etc and the boys also go to buy this Ashanti-made shoes so looking at things, when the youth get the job they will do it. As the day breaks like this you will see a lot of 'apampemu store' that is each one is carrying something on the head to sell those that sell water, bread, among others (Naimatu Abubakar, 24 years old female, JHS leaver, Unemployed).

It's not like we don't want to go to the market, but the market has no toilet facility close by and there is no gate to secure our food items and wares. As you can see, with my bulky goods, it means I will have to carry them to the market in the morning and carry

them back in the evening. Also there is no crèche around the area that I can go and leave my child there and go for her after market (Awura Ama Sabina, 33 years old female, TUC Vocational level, Trader).

The oil has brought us problems, I am from Cape three point area and the problem this has imposed on my brothers over there has also affected us here and things you will buy for GH¢2.00 in Accra you buy it like nearly GH¢10.00 here. Why is it because of the oil city? People have built flats and they will not give it out for rent because they are waiting for the oil people but when the problem comes it falls on those of us who don't have. Now 1 cup of gari is GH¢1.00 while in some parts of Accra it is GH¢0.70 so the oil has cost us (Awura Ama Sabina, 33 years old female, TUC Vocational level, Trader).

Personally being the community leader, I have no work to do so that is how bad the situation is. Most of us are hustling to survive. So that is how best I can describe the town. We have a peaceful and safe community, but presently there are no lands available for sale and we have no jobs. People do menial jobs, there are those who carry food items and water and other household wares around on the head (Chief of Kwesimintsim zongo- male elders focus group).

4. Future Challenges

- Land scarcity in Kwesimintsim has increased over the years and this has characterised the housing stock with unaffordable houses/rooms, and residential overcrowding. The housing situation is worsened by the discovery and exploration of oil and gas in commercial quantities in Sekondi-Takoradi, leading to migration of local and foreign nationals into Kwesimintsim. Owing to the increasing demand for housing units than available stock, landlords have resorted to evicting tenants and converting residential apartments into stores and offices. The housing condition and attendant problems are likely to persist if the situation described above is left unattended to. Residents are keen for the rent control to enact bye laws that will regulate and ensure that landlords increase rent charges only after 5 years to curb the increasing rentcharges.
- Informal trading activities have contributed to the local economy of Kwesimintsim. Notwithstanding the emergence of oil related businesses and other income-generating activities in the community following the oil find, unemployment, particularly among the youth, persists. Vocational and technical training opportunities are available but places are limited and expensive. Government support to traders and revamping of the community market were highlighted as the way forward to improving living conditions.
- Residents identified several facilities and resources that are currently lacking in Kwesimintsim. The four most frequently highlighted were; expansion and revamping of community market to reduce mobility and transport cost; recreational spaces that can be used for sporting activities and general amusement; publicly funded secondary (including technical and vocational) and tertiary education institutions; and refurbishment of the

non-functioning community computer library to provide access to newspapers, books, information communication technology (ICT), and internet.

- Currently, although access to services such as water, electricity and toilet/sanitation facilities is not in their best state, it is not causing people to move out of Kwesimintsim. This is as a result of the housing pressure and because such conditions are prevalent in most low-income settlements. Key services are in need of upgrading, and the priority for such improvements are as follows:
 1. Water: residents are keen for the introduction of a system that will provide a reliable and affordable supply of treated water, and landlords should make it accessible to all, as this will decrease household expenditure on water and increase income for economic activities.
 2. Toilet/Sanitation: Although some homeowners have built detached toilet facilities in their homes there is still an over dependence on the limited number of public toilet facilities and the many residents cannot afford to use these services resulting in increased instances of open defecation. The government should provide more assistance to those attempting to comply with the 'one toilet per house' policy initiative.
 3. Electricity: the pre-paid meter system should be made more user- friendly, less expensive and service quality must be improved as this will reduce disputes among household members and support economic activities.
 4. Local Transport: the settlement has good transport links to other parts of the city but due to increasing petrol costs (at the national level), the rising price of trotro and taxis is placing a strain on income-generating activities and reducing profit margins.
 5. Mobile Phone Signal: the signal quality is unstable and is comparable to other areas of Sekondi-Takoradi, though this is not a major area of concern.

Settlement Summary 3: Anaji

1. Background

Here, there is no available land. If you want land then unless you go far, very far from here before you will get some to buy. But Anaji in particular you will not get some to buy. If you are lucky, then it's somebody's vacant land or uncompleted building which is for sale before you will get some to buy here. (Ernest Quashiga, 34 years old male, Assemblyman of Anaji, HND holder -Teacher).

Anaji is a middle-upper income settlement located on the Northern edge of the city centre of Sekondi-Takoradi, established by the Ahantas (Anwona and Asona families) who were relocated during the construction of the Takoradi Harbour. According to oral history, the name of the present settlement was previously “Adagyere” (Fante word for time), meaning you could only stay in this town when you have time. Afterwards, it was changed to Anaji due to the difficulty in pronouncing the name. Starting as a small indigenous farming village in the old core (near an area called Namibia where the chief lives), Anaji has undergone significant demographic and physical changes since the early 1980s and three main reasons have accounted for this rapid growth; 1) rapid population growth 2) sale of land and conversion of farmlands for residential use 3) construction of estate houses and SSNIT flats.

Anaji's population has been increasing tremendously over the years from 600 in 1970 to 2,460 in 1984 and 9,274 in 2000. Recent census data estimates that the population was 30,397 in 2010⁵. The increasing population of the settlement can be attributed primarily to the population spill over in the city centre and the resultant outmigration of wealthier residents to suburban residential areas. In the early years, the settlement was covered in foliage and farming predominated, mainly by the natives who are particularly visible in the old indigenous core of the community (Anajikrom). As a newly emerging area, the chief deliberately sold portions of the land to the government to fast-track development of the area and that resulted in a lot of the farmlands being converted into residential units. Later on, the community developed and increased in size outside the old core, which along with an expanding middle class intensified pressure on housing. In response, the State Housing Company (SHC) spearheaded the construction of estate houses (Anaji Estate) and government bungalows (Anaji Low Cost) for the growing population particularly workers in the public service, and this effort was later complemented by the high rise flats (Anaji SSNIT Flat) that were built by the Social security and National Insurance Trust(SSNIT).

Significantly, the above-mentioned changes have substantially appreciated land value and contributed to the scarcity of land for development in Anaji. Currently the prices of vacant building plots range between GH¢15,000 and GH¢60,000 though this was between GH¢7,500 and GH¢30,500 a decade ago. Also there is mass speculation on land in the surrounding suburban locations of Anaji where large acres of farmlands are continuously being acquired by wealthier individuals and muliti-national companies for residential and

⁵ Ghana Statistical Service (GSS), 1970 Population Census; GSS, 1984 Population Census; GSS, 2000 Population and Housing Census, GSS, 2010 Population and Housing Census.

commercial developments. In terms of the built environment, majority of the houses in the older indigenous settlements are family owned and occupied with detached toilet facilities, and are dominated by mud houses with some level of infilling and renovation works as people add extensions on available spaces on family lands. Similar to other middle-high income settlements in Sekondi-Takoradi, the landscape outside the indigenous core is however characterised by an array of new single (self-contained) and multi-storey buildings and architecturally diverse designs with security services.

2. Housing and Services

These estate houses were built by state housing and they bought the lands so every year, we pay a land lease which used to be very small but has been increased to about GH¢70. I don't really know what that is for but we pay. The government also built the affordable houses for the workers and with those ones the government acquired the land. Some are also in the SSNIT flats while others have put up their own buildings. (Lawrence K. Fordjour, 60 years old male, Graduate University of Ghana - Pensioner Ghana Commercial Bank).

In terms of housing provision and the housing stock, Anaji displays a mix of housing types and arrangements at different sections of the settlement which include; Anaji Old Town (Anajikrom), Anaji Estate, Anaji Low Cost, Anaji SSNIT Flat, and Anaji New Site. In the Old Town where the indigenes predominate, majority of the houses are densely populated and are family owned and occupied. The housing stock is mainly older single rooms and multi-occupied large housing blocks (compound houses) made from mud and blocks with toilet facilities detached several meters away from the buildings. Just after the Old Town is Anaji SSNIT Flats made up of an array of high rise storey buildings with several different households occupying portions of the flats which are mostly two bed rooms (comprising a living room, kitchen, and toilet and bath facility).

As one moves away from the indigenous core, the houses become architecturally diverse with the Anaji Low Cost and Estate houses intersecting with self built and walled residences. The Anaji Low Cost and Anaji Estate buildings are detached self-contained single family homes usually one bed room with a living room, kitchen, and toilet and bath. Together with the SSNIT Flats, they were planned settlements built as part of the efforts to meet the increasing demand for housing and they were targeted at the poor and middle class workers in the public sector. Thus, the different housing provisions found in Anaji mirror the attempt by the different companies and institutions to build houses for their workers and these include; SSNIT, GHACEM (Ghana Cement), SHC, State Construction Company (SCC) now defunct, A-Lang, etc (see figure 3.1). The difference between the junior and senior ranks is also reflected in the type of building or the number of rooms usually between one and four bed room apartments. Away from these government bungalows and estates towards the surrounding developing areas is the Anaji New Site populated by private homeowners where properties range from self-contained houses to multi-storey mansions.

In terms of housing rent, whereas in the Old Town a single room cost GH¢20-30 monthly and GH¢60-80 for a chamber and hall, a two bed room self contained flat (comprising a hall,

kitchen, toilet and bathhouse) outside the indigenous core could range between GH¢150-250 monthly. Those who operate the container shops in the frontage of homes also pay between GH¢10-20 as monthly rent. Housing rent often comes as a huge burden on household expenditure as tenants normally have to pay two to three years advance and suffer from frequent increment by homeowners after each agreement period. However, the situation appears different when it comes to the government (SSNIT Flats, and Estate and Low Cost) houses. Although some are still renting, most of the residents in the SSNIT Flats, Anaji Low Cost and Anaji Estate areas apparently negotiated with government some years ago (between 2008 and 2010) and now own their residences (houses and flats). Recounting their earlier days of renting, some residents mentioned that they used to pay GH¢5 monthly which was increased to GH¢10 about a decade ago before the takeover process begun in 2008 and some of them finally paid between GH¢5,000 and GH¢15,000 to become homeowners.

Figure 3.1: A section of Anaji SSNIT Flat



Source: Field work, 2014

Generally the settlement is well planned with a lot of accessible streets and lanes. It is common to see a lot of visible extension works in the estate and low cost houses as majority of the residents have resorted to attaching additional bed rooms and stores to their original structures. Similarly, in the Old Town, the new comers are actually contributing to the gentrification process of the old housing stock in the indigenous core, as some prospective tenants now negotiate with homeowners to complete buildings and enter into rental arrangements for a number of years to redeem their investments. The New Site is experiencing controlled development (in the newly developing areas), renovation and infilling by the newcomers and this is connected to broader city dynamics, where the exploration of oil and gas in Sekondi-Takoradi has spurred the migration of local and foreign nationals and companies to Anaji and has, thus, occasioned the conversion of residential units into commercial and office spaces with resultant daily influx of workers (see figure 3.2).

Figure 3.2: Upgrading and extension works on a single storey building in Anaji



Source: Field work, 2014

Water

Many people have laid the pipes to their homes but the water doesn't flow. For my house about 3 month now there is no flow of water. Even when it flows it is at midnight and so you need to put it on and if that happens, and air passes through without water flowing, you incur cost. When it comes to the well, it is mostly salty and cannot be used for drinking and our bodies itch when we use it to bath. (Peter, 81 years old male, Pensioner, Elderly focus group discussion)

Access to water in Anaji is characterised by a mix of areas without water supply, and those with unreliable supply. These differences are felt disproportionately among residents, for instance, in the outlying areas of the indigenous core where coverage is comparatively good service is increasingly erratic and undependable, whereas in the Old Town coverage is low as a result of inadequate and poorly maintained infrastructure. The reality is that, households access water through multiple sources such as pipe connections from the service provider - Ghana Water Company Limited (GWCL), private water vendors, sachet water, and rain water harvesting for their drinking and domestic purposes.

In the Old Town, private water vendors (mostly homeowners) who sell from reservoirs and polytanks are dominant. They normally operate within or very close to their homes usually 5-15 minutes walk on open spaces in the community. They connect to the public water supply network directly and pay monthly bills between GH¢80 and GH¢150 to GWCL through the metered billing system. With such facilities, water is sold to the public at GH¢0.30 per the 20-litre jerrycan locally known as *Kufuor gallon*, but it could increase to GH¢0.40 in times of water shortage when vendors purchase water from tanker operators. In the same way, a few households who have in-house pipe connections also sell water directly from the standpipes

to raise money to pay their monthly bills which range between GH¢20 and GH¢40. In instances where a residence is occupied by a particular family the monthly bill is divided among household heads and one member goes to pay on their behalf. Others who do not have water connection sell water from wells which is relatively cheaper than the pipe water which sells at GH¢0.10 per 34 litre bucket and GH¢0.20 per the Kufuor (yellow) gallon, though such water source is fraught with quality concerns.

The remaining sections of the settlement depend heavily on tanker operators to support the inadequate and erratic pipe water supply, which flows in the night once every week or fortnight or three months. They pay monthly bills between GH¢20 and GH¢60 to GWCL. Although some residents in Anaji SSNIT Flat, Low Cost, Estate recounted that they previously received free tanker supply from the government or their respective companies in times of shortages the same cannot be said today as they now have to travel to neighbouring areas to buy water normally when the tanker operators are unresponsive to their calls. Apart from buying water, households have to purchase large containers and barrels in order to store water and this exerts a double burden on households income. The newly constructed buildings at the New Site are still connecting GWCL pipe water to their premises, and a number of homeowners have also constructed mechanised boreholes to improve access. Apart from a few households in the Old Town who treat water from the wells as their drinking water most people in Anaji resort to the drinking of (purified) sachet water that costs between GH¢0.15 and GH¢0.20 per sachet depending on the brand or GH¢2.50- GH¢3.00 for the entire bag of 30 sachets.

Toilets/Sanitation

The residential areas together with some parts of the Old Town have toilets in their houses. Previously those of us in the Old Town had only 1 public toilet until lately when the second one was built out of the HIPC fund. They frequently increase the user fees, and it's really hard to breathe when you visit that place. It's all because they don't manage it properly. Some private people are running it into their own pockets and they only pay GH¢10 as a contribution to the community. (Kwabena Essien (Alias Oheneba) 24years old male, SSS graduate- Teacher who doubles as a Presenter at Anajiman Information Center).

Unlike residents in the government buildings and the homeowners in the New Site, access to toilet facilities remains a major challenge to residents in the older sections of the settlement. While a handful of the households depend on in-house toilet facilities that are often detached meters away from the main house (building) majority of the residents rely on the two (2) community toilets (one public and the other private). Not only are these facilities inadequate in terms of numbers but they also averagely contain 6 cubicles each for both male and females which creates a lot of long queues especially during the morning rush hours, before residents leave for work and school. In addition, residents pay a user charge of GH¢0.20-0.30 on each visit and this amount charged is not commensurate with the services provided as residents complained that the facilities are smelly and they visit them with reservations. The proximity and operational hours (5am-11pm) of the facilities also create accessibility and reliability concerns among residents. Majority of residents particularly bemoaned the poor

management practices at the facility near the community market which poses a lot of food and health risk. The above mentioned challenges have culminated in an emerging practice in the community where some residents defecate in polythene bags (take-away/flying toilets) and later dump with household waste or in neighbor's backyard, and gutters.

Access to sanitation services poses a major challenge to residents in both the indigenous core and residential areas. In terms of service provision, whereas residents in the residential areas are served by the waste management companies (ABC, and VENMARK) through the house-to-house (HtH) service those in the Old Town mainly rely on the central communal collection (CCC) system with distantly far dumping sites. Residents mentioned that the HtH services is unreliable as the number of visits per week has reduced from twice to once and the collection time has also changed from mornings to evenings which tends to inconvenience the middle class who normally return late from work in the evenings. Also, their collection days are unpredictable and as a result residents are forced to leave their filled waste bins and containers outdoor or risk missing them, though this practice is fraught with waste scavenging by dogs which sometimes causes a pungent smell in the area with attendant health consequences. Notwithstanding these quality of service issues, residents pay a monthly fee of GH¢15 which in the not too distant past was GH¢6.

Managing household waste in the Old Town is characterised by a mix of practices such as the pay-as-you-dump service (through the CCC), open dumping (in open spaces, gutters, and backyards) and open burning. It came out that the older section of the community is served by a single dump site which is inadequate and inaccessible, and the skips are also left to overflow several weeks before they are transported for final disposal. The user fee for accessing the CCC ranges between GH¢0.20-1.00 (depending on the quantity of waste) and this largely explains why most households resort to open dumping and burning disposal methods.

Electricity (power for charging mobilephones)

The price of the prepaid credit has increased. Before if you buy GH¢30 it will take about 3 weeks to get finished but now the same amount bought on 13th will finish on the 25th of the same month and so as a pensioner who receives GH¢100 monthly, prepaid will take it all. Water bill is not included and we can't provide our children with basic needs which is shameful to us. The electricity prices are high and so the government should subsidize it for us. (Emmanuel Kwabena Turkson, 64 years old male, Pensioner).

Access to electricity supply in Anaji is generally good as with the exception of a handful of properties in the old town, majority of homes are connected to the national grid, Electricity Company of Ghana (ECG). The challenge associated with electricity supply in the settlement however relates to residents' perception about the high consumption rate of the newly introduced prepaid meters and the attendant increases in the price of the prepaid credit. The prepaid system is bedeviled with affordability concerns, and it is also increasingly becoming difficult for families to budget as they are unable to predict when their next top-up is due. Unlike the previous (monthly bill) system, where residents normally paid between GH¢20-30

per month, the new prepaid charging system is about two to three times more expensive as they now pay about GH¢50-80.

Significantly, the affordability and accessibility dynamics play out differently to impact the variability in the level of access to electricity supply. For instance, in the old town the financial inability of some residents to reload the card explains why they do not enjoy continuous power supply and this has occasioned the emerging practice where some households and frontage shop owners tap power illegally from their neighbours. In a case of a large household size, this has also led to disputes over who should top-up when the credit finishes and power is unexpectedly cut off. Similarly, those in the remaining areas of the settlement are sometimes unable to access power due to the unavailability and unreliability of the prepaid credit vendors during certain periods of the day (especially in the evenings). This is particularly worrying for most of these middle-class residents who leave home early in the mornings for work and return late in the evenings.

These issues discussed above are further worsened by the poor quality of service and intermittent power supply associated with the introduction of the prepaid system, and this includes; frequent faulty meters, inserting master card to restart a shut down meter, and sudden power cut even when the prepaid is loaded. Most residents also expressed reservations about paying levies for street lights when such facility is virtually non-existent in their areas. They indicated that the unavailable and malfunctioning street lights often restrict night movements in certain areas in the settlement.

Voices from Anaji: Housing and services

"Previously Anaji was like a cottage. Farmlands were dominating but now it's not so. The buildings were not self-contained as you see currently. They were like the extended family house type. Even these SSNIT flats from 1 to 12 were not built. Some completed buildings did not have toilet facilities, and even now some houses are detached far from the toilets so unless you walk for some distance before you can reach where to defecate." (Serwaa, 50 years old female, Early childhood degree student at University of Education, Teacher).

"In those days, rents were cheaper here at the Anaji Low Cost area. When we first came here we paid only GH¢3 and this triggered the movement of people here. It was increased to GH¢5 about 10 years ago, and before they sold them off around 2008-2010 we were paying GH¢10. Where at all in Accra will you pay GH¢10 for three or four rooms flat/self contained? Those times we sometimes paid 3 or 4 months advance because we were afraid they might increase the rent. Later, we negotiated with the Kuffour government and they sold them to us. The decision was taken in 2010 and they sold them off to us, the government workers. People started long ago making deposits towards that but when the selling price came they were far lower than expected. Now prices of petrol, gas, water and electricity are high and salaries are small." (Lawrence K. Fordjour, 60 years old male, Graduate University of Ghana - Pensioner Ghana Commercial Bank).

"The water supply is not good. The taps flow in the night and the pressure too is very low so the taps inside don't flow. I have to always come out in the night and fill those containers you see from the outside tap. That is really a problem. In order to survive, you have to get big containers to store water. We have complained about the water for long and nothing is being done so now people have dug wells for themselves." (Rosemond Abrenya, 23 years old female, Tertiary student-UCC, doubles as a Teacher).

"You heard, they said they will make a prepaid meter for water as well? They shouldn't let that happen at all. For electricity, you can wait when you run out of prepaid credit even a day but water particularly is different because the water you drink affects your health. It is not advisable to introduce the prepaid system to water supply. You'll be killing the poor people if you do that. In fact, water should be free for all." (Lawrence K. Fordjour, 60 years old male, Graduate University of Ghana - Pensioneer Ghana Commercial Bank).

"For now if you want prepaid credit to last longer and make you comfortable, you have to buy GH¢30, some even buy GH¢50 and it usually last 2 weeks so that is the problem we are facing. In fact, we have a problem with the electricity because of the prepaid system." (Serwaa, 50 years old female, Early childhood degree student at University of Education, Teacher).

"We do not have our own meter in this house. We take it from our neighbor. We are 4 in all who use the prepaid. If we take 5gh from each person and buy 20gh, it's not able to even last 2 weeks. And we don't use any big appliances in our rooms. The prepaid is really expensive. The old meter system is far better than that of the prepaid because, you pay at the end of the month. But here lights go off as soon as the prepaid gets finished and that is really bad. You'd have to roam about before you get credit to buy. Those who use it alone in their houses I think don't have problem." (Kwabena Essien (Alias Oheneba) 24years old male, SSS graduate- Teacher who doubles as a Presenter at Anajiman information center).

3. Livelihoods and Mobility

If you go to the old town, the Ahantas and Nzemas, I mean Fantis dominate. But at the other areas you will find a mix of people; the Ewes, Ashantis, Akyems, Nzemas, Northners, Gas. We are all Ghanaians so we don't discriminate by selecting a particular tribe to settle here or there. What normally happens is that a person from a particular tribe will get a settlement in an area and then introduce it to his fellow tribe mates to also come and settle there. (Kwesi Asefua, 86years old male, Retiree-Ghana Air Force- doubled as a Farmer and ProfessionalCarpenter).

As mentioned above, Anaji was previously a small farming village largely occupied by the Ahanta and Nzema ethnic groups. Since the late 1980s, with the arrival of the newcomers and the construction of government bungalows and SSNIT flats, the community's population has increased radically with a diverse ethnic mix. Currently, the settlement epitomizes a blend of people from different tribes- Ahantas, Nzemas, Anlos, Twis, Ewes, Akyems, Gas, and

Muslims. Even in the so called indigenous core where the indigenes (Ahantas) traditionally occupied, the situation has gradually but continuously changed over the years as most of the multi-occupied large housing blocks- family houses are increasingly being given out for rent to the economic migrants by the enterprising landlords. Thus, the mobility dynamics in the old town is occasioned by the newcomers relocating to the settlement as tenants, which has spurred the gentrification process of most buildings and modifications in the mud houses as well as extensions and conversion of facilities to sleeping spaces and emergence of tabletop petty trading activities.

Outside the older sections of the settlement, the mobility dynamics was actually triggered by the relocation of government workers (in the civil and public service as well as other government related agencies and institutions) to occupy the state built-houses. This partly accounts for the long-term residency of people there and some have made investments in landed property or in landholding. Also, wealthier individuals and families who have lived in Sekondi-Takoradi but are originally from different parts of the country, and indigenes of the Fanti ethnic group, have left more densely populated areas of the city such as New Takoradi and Kwesimintsim respectively for housing (and serene environment) and investment opportunities in Anaji. The homeowners were enthusiastic to explain that the choice of Anaji over other residential areas was not due solely to its middle-high income status, but rather the settlement's growing reputation for peace and security, good layout and clean environment, as well as the high caliber of residents; civil and public servants. Additionally, the oil dynamics at the city level have had their turn on the local economy of Anaji with oil related companies and organisations siting their branch offices and oil tycoons and middle-class workers relocating to buy and rent properties there. The implications are that, it has increased economic rents and property value, conversion of residential spaces into administrative and commercial units, and attracted other services such as banking and micro-financial institutions, construction, etc.

Income-generating activities

I sell beads and my sister sells shoes and clothes, the other woman owns provisions store in Town, another sister staying here is a beautician. The rest of the people do government work. Those here go to trade at the market. There is one woman who sells pepper and onions, another one is also a bar attendant. The rest go to Town to trade but here actually, some sell food items which we patronize. (Abena Dema, 41 years old female, Form four leaver- bead weaver).

Although previously majority of the residents (including public and civil servants, and private business owners) travelled outside Anaji to work, now the residential area is gradually witnessing the emergence of some economic activities. This has made the community more lively and vibrant as hitherto it was virtually silent during the working hours and schooling periods. A handful of residents in the old town particularly the elderly still engage in agricultural activities with the women mostly selling foodstuff (e.g. oil palm, plantain, cassava, potato, pepper, oil) in the market at Anajikrom (Anaji old town). It must be however added that, because of the scarcity of land, presently, farming is done in surrounding areas of

Anaji such as Ahenkofikrom, Mampong, Abehenease, Awiawso, Adumasi and Abeka Nkwanta.

The diversification of Anaji's local economy is seen in the presence of some formal and informal economic activities. For instance, the formal economy in Anaji provides several job opportunities for people to work as teachers (basic, senior high, and vocational training schools), bankers (Ahantaman and Lower Pra banks), nurses, police personnel, staff of security and insurance companies as well as oil related organisations. It must be mentioned that, these economic activities invariably affect the mobility patterns in the community with daily influx of workers who commute to Anaji every morning. Suffice to add that, while the oil industry has attracted the establishment of offices and training centres in Anaji, the majority of these businesses and services are owned by multinational firms who employ staff living outside of the settlement. In most instances, these workers are recruited in Accra, trained and placed at their branch office in Anaji as well as other parts of Sekondi-Takoradi.

In addition, there is a growing and flourishing informal sector economy that supports the livelihoods of most residents in Anaji. These activities are mainly home-based and mostly found along streets (see figure 3.3). Majority of the young men are artisans who earn income as aluminium glass designers, sliding door fabricators, stuffing chair upholstery furniture designers, carpenters, masons, electricians, plumbers, tilers, tailors and fashion designers, while others work as fast-food vendors, shop attendants, barbers, gardeners, and petty traders. The female population primarily undertakes income-generating activities such as small container provision shop owners, and boutique and cosmetic operators, while several others work as seamstresses, hairdressers, bead weavers, foodstuff traders (particularly the old women in the old town), sachet water and cooked food vendors, mobile phone credit vendors, chop bar operators as well as household cleaning and washing service providers.

Figure 3.3: A typical home-based enterprise (foodstuffs and dressmaking) in Anaji



Source: Field work, 2014

Undeniably, a larger section of the population still travel outside daily to work. Apart from residents working in the government and its related agencies, a chunk of them work in different places such as the harbour, hotels, hospitals and clinics, schools, banks, radio and television stations, police stations and security services, district courts, oil companies, and several ministries, departments and agencies of the government. The above mentioned activities in the settlement have combined to shape the built environment as in some cases they occur in and around the home and garages (leading to the conversion of properties and spaces), driveways and the pavement in front of the property. To a large extent they also have implications on the intra and inter mobility and transportation dynamics in the community.

Service availability and income-generating activities

The electricity is of concern to us, as most of the self employment jobs here depend on electricity. We need light to work in the tailoring shops, hair salon, and those in the ice cream, water, and kenkey business. Even the seamstresses have to sometimes stay overnight and work to meet their promises to the customers. What is worse is that now you can't predict when the lights will go off so you can't plan your working schedule. You can be here the whole day and there is no light to work and you still have to pay your rent, workers and so on. (Theresa Afful, 25 years old female, provision shop keeper).

The survival of most economic activities largely depends on the level of access to services such as water, electricity and toilet/sanitation facilities. However, residents in Anaji expressed concerns about how the challenges associated with accessing these services negatively affect their income-generating activities. For instance, the lack of quality drinking water and poor toilet and sanitation services reduce time left for income generating activities and also pose health concerns, which are likely to increase households' expenditure for medical care. Similarly, the issues of intermittent power supply and rising cost of top-up credits have real impact and direct bearing on the growing informal activities in the settlement. For some livelihood categories such as tailoring and dressmaking, hairdressing and barbering salon operation and ice water vending, the lack of electricity supply means complete operational shutdown which leads to loss of income. Although, some workers have devised coping strategies such as travelling to nearby areas and the central market to access power, staying overnight to complete a job order, buying iced-block to chill water and other soft drinks they come with an extra cost which in the end affects profit margins. Customers and residents in general also bear the brunt of the power situation as they now pay more as a result of the increase in the cost of recharging prepaid cards and sometimes because of the express delivery by dressmakers, etc who either work overnight or travel elsewhere to complete their work.

Moreover, the case of meter sharing by different business owners or shops in the old town in particular is bedeviled with issues of overconsumption, uncertainty about next top-up and financial unpreparedness of some users during top-up, all of which negatively affect business operations and income levels. Similarly, some people join long queues to top up their prepaid meters before they run out of credit, which again takes time away from income generating activities. In addition, the wealthy middle-class group who have the financial means to

acquire generators to keep businesses running complain of profit loss owing to their high overhead cost. This tends to have unforeseen repercussions on the overall business sector through the increase in prices of goods and services with unequal consequences for poorer business owners. Teachers also express sentiments about how the power situation forces them to stay a little longer in school to make the necessary arrangements for the next day and complete any pending assignments (revising lesson notes, marking, etc). All of such arrangements tend to reduce time spent at the household to provide services including collection of water or bringing waste bin outside residence to meet waste collectors, all of which invariably have implications on work schedules and mobility patterns.

The power situation has necessitated a practice where customers have to prearrange with business owners to have foreknowledge about the power situation before making any trip. To avoid transport cost and time, most of such engagements are mostly done on the phone. Thus, mobile phones have enabled customers to contact business owners and find out about their availability and the power situation. They also solve the issue of having to temporarily leave one's business for top-ups, visiting toilets, and making purchases. Besides, through the mobile money service, a platform for transferring and receiving cash, residents have been able to stay in touch with their children and relatives elsewhere without necessarily travelling to visit them or attending occasions such as funerals. In terms of mobile phone coverage, they indicated that the service is generally good except that there are some interruptions which result in signal loss, emergency calls only, and dropped calls (common issues with most mobile networks in the country). It is therefore not surprising that most business owners and residents more generally often own multiple SIM cards to overcome such issues and reduce costs.

Urban transport, mobility and income-generating activities

I think the drivers are cheating us because they keep increasing the transport fare. Previously they used to take GH¢0.80 but now it is GH¢1.20 thus they have added GH¢0.40 and so they should do something about it for us .When you ask they tell you the bad roads and the fuel increase explain the increment. (Abena Dema, 41 years old, Form four leaver- bead weaver)

Anaji has good transport links to other parts of the city and private car ownership dominates in most sections of the settlement. However, a large group of residents in the old town and new site rely on public transport in the form of trotro (local minibuses) and taxis. The roads in the old town are narrow and untarred with a lot of deep potholes as compared to the estates and the new site which have tarred roads with clear layouts and street names. Although, trotros are known to provide good cross sectional connectivity of a settlement to other economic hubs in the city, in the case of Anaji (as in most high income neighbourhoods) they only ply routes leading to the old town leaving those in the new site to be served by taxis. Residents in such areas who cannot afford the private means of transport complain about the fact that they have spent more waiting times to access the taxis, make two or more trips/ interchanges to get to their final destinations (place of work or central market), and in emergency times pay for private dropping which range between GH¢6-10 to the Takoradi central market.

The state of transport services negatively affects mobility and income generating activities. For example, the increasing fares of public transport (which is the case in other parts of the country) due to rising petrol costs is exerting a burden on income-generating activities and reducing profit margins. Currently, it cost GH¢1.40 to travel on a taxi from Anaji to the Takoradi market circle while it cost GH¢1.00 to travel on a trotro. The transport fares increase the daily transport expenditure of road users and this has a tangible and direct bearing on household income. In addition, users in the old town expressed their dissatisfaction with the situation where they have to walk a considerable distance to board the trotro, resulting in fatigue and clothes becoming dusty and dirty. More importantly, the dusty roads pose severe food and health risks to the foodstuff and traders in the community market.

Voices from Anaji: Livelihoods and Mobility

"The area is a mixture of different tribes who moved to this place to settle as a result of the conflict between the Wassa and the Ahanta and so there are people who moved from Techiman (Brong Ahafo region) to settle here but are not Ahantas. Queen Awura Aduku and her people for example who were not Ahantas fought to acquire lands to settle on. People in the Anaji town have rented some rooms to tenants and so they live with outsiders in their houses and they live peacefully." (Kwabena Essien (Alias Oheneba) 24years old male, SSS graduate- Teacher who doubles as a Presenter at Anajiman information center).

"Perhaps because here is a high income residential area you don't easily see home-based trading activities like roadside food, and provision shops around here as compared to other communities. The few ones you find are expensive, things which are supposed to sell at GH¢1 can go for GH¢2 because they know definitely you will buy." (Serwaa, 50 years old female, Early childhood degree student, Teacher).

Land costs GH¢10,000 - 15,000 and so we are alright buying the government houses and staying here. If you've got enough money you can extend so your kids can get somewhere to stay. If you go to that house you see there, he's made the extension so there are 3 more rooms to accommodate people. People are now happy being here, lots of shops are emerging. You can now even stay here a week without even going to town. You may go to town because you want to buy things cheaper in the (super) markets. You can get your foodstuffs here without travelling far from here." (Lawrence K. Fordjour, 60 years old male, Graduate University of Ghana -Pensioner Ghana Commercial Bank)

"... If it's about my parents, I send money through the rural banks or mobile money to them. But if it's funeral then I either go or allow my wife to do so. I hardly travel to visit friends and my children. You know money is hard to come by these days and I need not burden people with my visits." (Mr Oti, 64 years old male, Form 4 leaver, Pensioner- Consumer Credit Company).

"One major problem here is transportation fares. We formerly paid GH¢0.80 when you travel on a taxi to town and it increased to GH¢1.20 but now we pay GH¢1.40. For the trotro, it was previously GH¢0.50 then it increased to GH¢0.70 and now it is

GH¢1.00. That is a problem, and its fuel cost if you are going with your private car. Now, if you want to go to town, you'll have to take drop-in which will cost about GH¢6.00-7.00 which is really expensive. But apart from that, this place is really peaceful." (Abena Dema, 41 years old female, Form four leaver- beadweaver).

"When you go to Venezuela, petrol is very cheap all because they have oil like we do. If the price of petrol goes down, transport fares will as well be cheaper and prices of food and others will come down. With that, you can even take a car to Tarkwah and buy plantain and come back and you can as well sell it at a cheaper price because transport fare is cheap. Or you can go to the outskirts, Agona Nkwanta, and buy your foodstuff and come back because they are cheaper there. That is what will happen if transport fares were to be cheaper. They shouldn't increase the prices of petrol because we have oil in Ghana." (Lawrence K. Fordjour, 60 years old male, Graduate University of Ghana -Pensioneer Ghana Commercial Bank).

"Yeah most of the people living here who work in town have their own cars but for some of us we depend on the trotros to get to our work places which is expensive because I can take about 3 cars before getting to my work place thus from Anaji to No. 9 and from there to Fijai and from there to my work place which is expensive especially in this time that they have increased the fare." (Rosemond Abrenya, 23 years old female, Tertiary student-UCC, doubles as aTeacher).

"Taxis are easy to get but it is very hard to get trotro. Even with the few moving ones, because of the students, they're always full so you are forced to take taxis. You take dropping when you are in a hurry. To cut everything down I just stop going to town, or instead of going myself I sometimes send someone who is already going to town." (Lawrence K. Fordjour, 60 years old male, Graduate University of Ghana -Pensioneer Ghana Commercial Bank).

4. Future Challenges

- The oil magnets are having visible manifestations in the built environment which is witnessed in the conversion of residential units to office spaces. Consequently, it is increasingly affecting the local economy as cost of living has become high coupled with growing unemployment which tends to negatively affect poorer households in the indigenous core. Residents highlighted that the oil economy is having some cultural implications in the settlement particularly among the youth.
- Anaji lacks a hospital or medical facility providing affordable healthcare. The handful of clinics that do exist are privately owned and often financially inaccessible for the majority of the population especially in the old town. Residents' tend to doubt the safety of drugs at the various licensed chemical shops (drug stores) due to expiry date concerns and also they question the expertise of pharmacists as they are believed to be virtually prescribing common medication for residents who visit their facilities with some form of illnesses and health conditions. Again residents in the old town recounted a few instances where pregnant women have given birth in taxis as a result of the rough and potholed road.

- Residents identified several facilities and resources that are currently lacking in Anaji. The four most frequently highlighted were; health facilities such as hospitals, clinics, drug stores to improve health care delivery in the area; recreational spaces that can be used for sporting activities and entertainment; internet cafes and a community centre providing access to secretarial services, newspapers, books and information communication technology (ICT); as well as additional junior and senior highschools.
- Although different sections of the settlement employ a mix of practices to access services such as water, electricity and toilet/sanitation facilities they are not currently a major factor in decisions to move out of Anaji. As a residential area, residents are confident about the improvement in key infrastructural services in the near future. Nevertheless key services are in need of upgrading, and the priority for such improvements are as follows:
 1. Water: the key issue with water centers on the costs facing those without access to in-house pipe borne water and the erratic and intermittent supply characterising those areas with the facility. Residents expect that pipe-borne water should be available in all homes and the rationing schedule should be made available and communicated to them.
 2. Local Transport: The increasing petrol costs which leads to higher trotro and taxis fares hamper income-generating activities and reduce profit margins. Residents' suggest that introducing public transport system (e.g. metro mass transit) and extending and improving the conditions of roads are central to improve the local transport situation.
 3. Electricity: The introduction of prepaid meters is placing a considerable financial strain on residents and business owners, and it is expected that a more stable/reliable and affordable access to electricity supply will be provided to make economic activities sustainable.
 4. Toilet/Sanitation: the cost of accessing sanitation services is expensive and has encouraged some residents to adopt less costly but environment threatening methods (such as open dumping and burning). In the mean time, while the local authority should encourage and help people in the old town comply with the 'one toilet per house' policy directive the government should build more private-public toilets with properly equipped personnel to manage them.
 5. Mobile Phone Signal: the signal quality is comparable to other areas of Sekondi-takoradi and is not considered an area of concern.

Settlement Summary 4: Assakae

1. Background

In the past the land was used for farming but nowadays there are a lot of buildings here. After the oil and gas discovery and exploration, people are buying large acres of land at cheaper prices from the chiefs under the pretext of using them for development projects. But you will realize after a long time that, they resell these lands to the oil companies and other business people who later contract it to the estate developers for commercial purposes (Alex Acheampong, Assemblyman of Assakae, in-depth interview).

Assakae is a peri-urban (low/middle income) settlement located on the Western periphery of Sekondi-Takoradi, established by a group of wood harvesters from New Takoradi (specifically the Ahantas). The area is bordered by Whindo, Adientiem, and Mpatado. The name of the present settlement can be historically traced to the term Saka (Ahanta name for saw), meaning an area where people kept their saw to fell wood. With time, it was changed to Assakae to mean "I am going to where they saw wood". In the past few decades, due to the low population and available farmlands, majority of the indigenes engaged in farming. However, like other peri-urban areas in the Western region, Assakae is undergoing considerable physical and socio-economic changes since the early 2000s with the arrival of newcomers.

The population of Assakae has been growing at a fast pace over the years from 1,481 in 1970 to 2,097 in 1984 and 5,553 in 2000. Recent census data indicate that the population in 2010 was 9,139⁶. The increasing population of the settlement can be attributed largely to the population spill over and pressure of demand on housing in the city centre, combined with available and relatively affordable housing and land for development in Assakae. With the community's rapidly developing prospects, most people who had previously acquired lands in Assakae have begun their building projects and those with completed buildings are now moving in due to the availability of facilities and gradual improvement in the provision of services. Generally, cost of living is low for most average households though with the growing 'invasion' of (oil) migrants, the local economy is becoming more dynamic.

Assakae is undergoing drastic changes especially with respect to modifications in land use practices and the built environment. In the case of land use, there is a significant decline in farming activities as lands that were previously used for farming are being converted to residential properties, and large acres of farmlands are continuously being acquired by individuals and multi-national companies for commercial developments. Among them is the King City project, by the Renaissance group of Ghana, which is aimed at attracting the growth of Takoradi and its surrounding areas away from the city centre, which is currently overcrowded, by providing low-medium and high-density residential areas and commercial buildings (see section 2, on housing, for a brief summary of the project). The increasing sale

⁶Ghana Statistical Service (GSS), 1970 Population Census; GSS, 1984 Population Census; GSS, 2000 Population and Housing Census, GSS, 2010 Population and Housing Census.

of lands for residential use has caused land values to appreciate and occasioned the emergence of double sale of lands particularly to the 'oil' migrants and companies who offer good prices, and thus creating access concerns and disputes over land between indigenes and migrants. There is also mass speculation on land, such that land prices have become very expensive and accessible only to an increasingly wealthy, smaller proportion of the population. Currently the prices of vacant building plots range between GH¢6,000 and GH¢20,000 though this was between GH¢1,500 and GH¢3,500 a decade ago. The rising land prices coupled with the situation where buyers are only issued a receipt for them to independently secure the land documentation, at an added cost, have made land litigation a growing concern among residents, and this is gradually weakening community ties and allegiance to traditional authorities.

In terms of the built environment, the older indigenous settlements are dominated by mud houses and are experiencing slight infilling and renovation works, with cement coatings on the outer parts as people build houses or add extensions based on the family or household size. On the other hand, the landscape outside the indigenous core is undergoing intense development with new single and multi-storey buildings and of architecturally diverse designs. Given the demographic heterogeneity, as a result of the migrant dynamics, the housing types and conditions are changing rapidly and similar to other peri-urban settlements in Sekondi-Takoradi. It is possible to predict even further reconfiguration of the settlement with added ramifications for access to and control of land for development as well as housing and services.

2. Housing and Services

This community used to be a very thick forest with a lot of coconut and oil palm trees where they harvested wood. When you go to the old town where the town started, there are a lot of family houses made with mud. At the new site, where the outsiders and oil people are buying lands, they are mostly block houses and big storey buildings (Abu-Bakir Wilson, 59 years old male, form 4 leaver, motor and bicycle mechanic who doubles as a farmer).

Outside the indigenous core, the greater part of the land that was previously used for farming is continuously being replaced by a diversity of residential buildings ranging from single rooms to multi-storey residences, at different stages of completion. Majority of these houses are self-contained with single family ownership and occupancy, and also characterised by low population density. Notwithstanding the heterogeneity of the built environment, in the older parts of the settlement, the housing types are predominantly single rooms and multi-occupied large housing blocks (compound houses). In most cases they are mainly mud houses with the outer parts usually cemented to appear like block houses, and were built with little recourse to the community plan as some have suffered recent demolition to make way for the construction of roads and community layout. This also makes movement difficult as it is common to walk through people's compound to access other parts of the settlement and some, particularly visitors, even end up entering neighbours' households and rooms in their attempt to connect to other areas. In the same way, some residents (especially those nearer the park)

also recounted a past fire incident and the inability of fire service to manage it owing to the lack of access routes.

Similar to land ownership, most of the structures in the old settlements are family owned and have cautiously been inherited by several generations of family members, though recently most home owners and landlords are ingeniously adopting innovative ways to maximize their economic returns in response to the rental market in the city. For instance, most landlords are in the business of renting any vacated room by family members who may have travelled or acquired properties elsewhere in the city, and also making extensions or converting facilities like kitchen and store room into living spaces in order to make rooms available for the teeming urban masses who migrate to seek accommodation in the community. Consequently, a single room (made with mud) cost approximately GH¢25 a month, and single (block) room with porch cost GH¢40-50 a month while a chamber and hall (rarely available in the old town) cost between GH¢70 and 120 a month (depending on the housing type and available services). A minimum of 2 years advance payment is required, and this comes as a burden on the earnings of tenants who also have to satisfy their deal with the middlemen who assisted them in getting the rooms. Averagely, there are 5 rooms per house, with between 5 and 15 persons per household. It must be added that, most of these tenants are actually contributing to the gentrification process of the old housing stock in the indigenous core, as some even negotiate with landlords to pre-finance and complete buildings and enter into rental agreements for a number of years commensurate with their investments, with some even adding other essential facilities (e.g. porch) and services.

The growing movement of people to Assakae has thus influenced land ownership and housing arrangements, and two categories of newcomers are evident. First, there is a mix of poor and rich (oil) tenants who seek accommodation in renovated mud and block houses in the indigenous core. The second category comprises of indigene and migrant homeowners who have acquired lands and built houses outside the old core in the newly developing areas. The mass speculation on land coupled with the changing pattern of land use, particularly, where land owners sell out plots of land to people to develop commercial property tend to negatively affect housing provision. The outcome is, shortage of land for residential purposes and expensive housing units, as most of the business people (e.g. the Renaissance group - King City project, see box 4.1) target workers of the multinational companies and oil tycoons with less focus on providing affordable housing for the average person.

Additionally, there are rent-free occupants and caretakers who squat in the newly developing areas either by erecting wooden structures on undeveloped lands or perching in uncompleted buildings. It was revealed that, owners of such properties are still waiting for the settlement to develop to suit their 'status', including members of the Ghanaian diaspora. Though some are illegally squatting, others have been able to negotiate with the land or home owners to act as land guards in the wake of increasing cases of land-grabbing and multiple sale of land in Sekondi-Takoradi. Also, while in some cases these caretakers are contracted to oversee the construction works and even continue as custodians until owners assume occupancy, others are evicted once construction works begin. The most pressing development challenges are that majority of the expansion works are occurring with little recourse to proper planning, and

utilities as well as infrastructural services such as water, electricity, and toilet/sanitation take many years to be provided.

Box 4.1: A case of the King City Project by Renaissance Group

Overview of the King City Project

The King City project is located in the north of Assakae area, whose location acts as a dormitory town to absorb the growth of Takoradi and its environs away from the city centre, which is currently overcrowded. It is 9km to the Takoradi CBD-Market Circle and 10km from the Takoradi Harbour. The Renaissance Group (a consortium of partners) has procured 2,400 acres of land (1,018 hectare site) which will be leased to real estate developers as well as individuals. The project is spilt into 6 phases/section construction which will provide all communal basic infrastructure and services (water, electricity, road, public green open spaces, hospital, university campus, cemetery, etc).

When completed the King City will have about 24,000 dwelling units, 98,000 residents over the next 10-15 years with a right mix of low-medium and high-density residential areas, large retail and shopping centres, and light industrial and commercial buildings, as well as leisure facilities, to decrease the housing deficit and promote the growth of the Ghanaian economy. The project is expected to benefit Assakae and its surroundings, and broadly ease the burdens of urbanization on Ghanaian cities. It is also expected to increase employment opportunities and provide support for commercial activities in the Western Region. It is currently at the level of engineering design for roads, water and other infrastructure, and as is common with all the 'so-called' affordable housing programmes in Ghana, the management team indicates that they are working to ensure the product that is delivered to the market can meet the pockets of all Ghanaians.

Water

The running pipes are few and they are expensive so many people have dug wells in their houses to get water. Water is really a problem here, because we use the well to cook, wash and bath and drink the sachet water but some do drink the wells because the pipes are just a few (Dzigbordi, 38 years old female- petty trader and cooked rice vendor- elders' focus group).

Assakae's growing population is not matched with expansion in facilities and services including water. A small section of the community has access to pipe borne water which is characterized by unreliable supply (for up to 3-4 months) with no prior notice about any possible flow from the water provider, Ghana Water Company Limited (GWCL), which normally occurs for few hours usually in the early morning or late at night). As a result, majority of households depend on wells and sachet water for their drinking and domestic purposes. Accordingly, virtually every house in the older sections of the settlement has a well and if there is none in the dwelling, household members access water from nearby facilities at a cost, and in some cases for free depending on one's family ties and social networks.

For residents unable to access pipe borne water and wells directly from their homes or a neighbour, they buy pipe water from private vendors (poly tank kiosks) for between

GH¢0.50-0.70 per 34 liter bucket or pay GH¢0.20 for water from the well. Large households spend sizeable amounts of their time and income on accessing water, and a family of five can spend between GH¢1.50–2.00 on pipe water and GH¢1.20 on water from a well per day, exerting a burden on income-generating activities and reducing profit margins. These vendors operate within walking distances from their homes, usually 5-10 minute walk. In addition, for quality and affordability concerns, some residents boil the well water to make it drinkable while others still combine these sources with packaged water in small plastic bags tied by the corners at the top containing 250–500 ml of water (also used for iced-block). The wealthy ones, on the other hand, resort to the drinking of small 500ml (purified) sachet water that costs GH¢0.15 per sachet or GH¢3.00 for the entire bag of 30 sachets.

Meanwhile, in the newly developing areas where a lot of the self-contained dwellings can be found, even though most of the buildings have pipe infrastructure connected to the GWCL, water supply is not extended to most premises. Consequently, most households use mechanised bore holes that pump treated water into reservoirs and poly tanks, though most of them dry up during the dry season. Moreover, a section of residents are unable to rely on them owing to the topography of the settlement (area configuration) and as a result, access water from tanker operators and consume purified sachet water which can be purchased from local vendors. Rainwater is also harvested and used for bathing and washing.

Toilets/Sanitation

Toilet is a problem here because most of the old houses don't have toilets. We use the public toilets which are not enough, and in the mornings there is a long queue and the place smells bad. Because of the fees people don't use the toilets but ease themselves in polythene bags and uncompleted houses. Even rubbish is disposed of in front of people's homes. There is an NGO here that provides houses with toilet, if you give them money. But as for us tenants there is little we can do because it is the landlord who must apply and pay for it (Agya Afreh, 34 years old male, Central University graduate - Journalist- youth focus group).

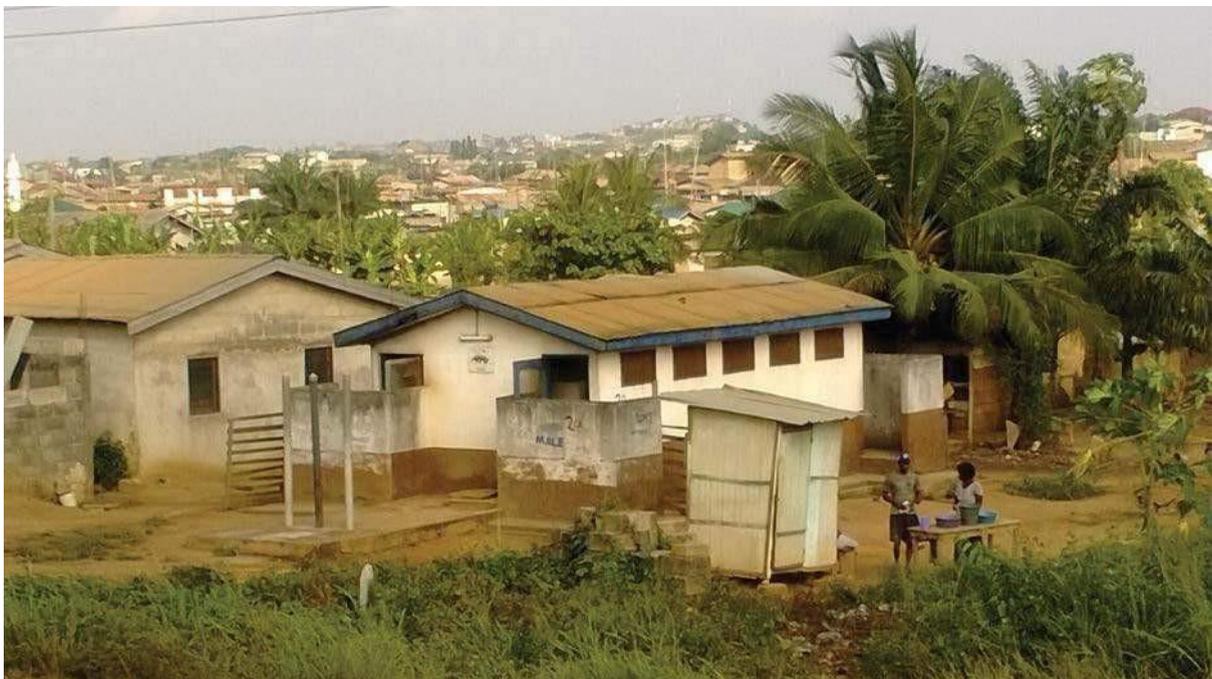
Residents in Assakae consider access to toilet facilities and sanitation services a major challenge as majority of them depend on private and public toilets. In the indigenous core, few households (including tenants and some homeowners) have in-house toilets which are often kept locked by the landlords for their families to use, while the tenants access them at a fee. In large households, particularly when the homeowner is residing in the dwelling with tenants, it is common to find two separate toilet facilities, one for the landlord and immediate household, and the other for the tenants. In a few cases, tenants contribute to put up the second facility or sometimes the landlord installs it and charges a yearly fee for the toilet facility in addition to their rent, usually about GH¢20 per year.

The toilet problem relates more to inadequacy, unreliability, unaffordability, and quality concerns. There are currently eight (8) public and private (commercial) toilets, which on average contain 6 cubicles for both men and women. Though both the private and public facilities serve the needs of the community, the private toilets are operated by individuals while the public ones are handled by the local assembly with different management practices.

The toilets provided by the assembly are sited close to people's homes, not well maintained and generally smelly and most residents visit them with reservations though they charge GH¢0.20 per visit (see figure 4.1). The private toilets however are well kept and provide toilet rolls, soap and water and as a result, a section of the residents prefer to access such facilities irrespective of the fee which is GH¢0.30-0.40 per visit.

The inadequacy of toilet facilities has resulted in considerable queues especially during the morning rush hours, before residents leave for work and school. Additionally, the facilities normally operate between 4am and 10 pm. The lack of reliable access, combined with cost and distance, as residents' argue, have made open defecation in polythene bags (and later dumped in waste bin or neighbor's backyard), gutters and uncompleted buildings a common sight in the community. Similarly, in terms of sanitation some residents engage in open dumping in gutters and neighbor's backyard and this is largely due to the fact that the community's dumpsite is characterised by inadequate space and overflowing skips. Although some elderly residents recounted the good sanitary conditions they enjoyed with the services of Zoomlion (waste company), the same cannot be said today with the increasing population and waste generation, and unreliable services from the service provider. While it cost a monthly fee of GH¢15 to access the door-to-door collection services, it is between GH¢0.30-1.00 (depending on the quantity) for a good number of residents who can afford the pay-as-you-dump service at the community dump. Meanwhile, in the newly developing areas most of the issues discussed above are less prevalent as many of the new developments have in-house toilets and have registered with the waste management service providers. The problem however relates to open defecation in undeveloped lands and uncompleted buildings which is mostly caused by the squatters and caretakers who fail to use the public toilets.

Figure 4.1: A public toilet located close to residents' homes



Source: Field work, 2014

Electricity (power for charging mobilephones)

The prepaid is bad. Initially when I buy GH¢10 it lasts for a month but now the GH¢10 lasts for days. So I went there to the place we buy the credit and I took the number of the ECG for questions. They told me when you buy the amount they take GH¢3. They said that was what they have been asked to do and that they will stop very soon. Sometimes the light goes out but mean while you have credit on the meter. When you ask they say there is a password on it. Now when you call for their assistance they use a master card and you will have to pay for it. They take as high as GH¢10-20 in addition to lorry fare (Fuseina, 28 years old female- Seamstress- elders focus group).

Access to electricity supply in Assakae is generally good as the majority of households (especially in the old town) are connected to the national grid, Electricity Company of Ghana (ECG), or tap power from neighbors with supply. The transition from agricultural to residential area, particularly in the new site, has facilitated the availability and expansion of electricity coverage. Residents are, however, unhappy with the quality of services provided since the prepaid meters were introduced to replace the post pay monthly billing system. The prepaid meters are associated with several problems which include; frequent faulty meters, inserting master card to restart a meter when it shuts down, and light going off even when there is credit on the prepaid. Most residents expressed reservations about paying ECG technicians who visit residences to insert the master cards to restart a shut down meter. In such cases, they sometimes pay between GH¢10-20 in addition to the transportation fare. They again articulated their dissatisfaction with the situation where they pay levies for street lights (usually between GH¢3-4) when such facility is non-existent in their areas.

Moreover, the introduction of the prepaid system has occasioned frequent intermittent power outages which are common at the city and national levels, and lights could go off without warning on 3 occasions in a day for several hours at different intervals. Besides quality of service issues, a major concern for residents is recent changes to the costs associated with electricity, which has a bearing on availability and access. This is against the backdrop that, residents perceive the prepaid meters to read faster and consume a lot of current. Although at first preloading a card with GH¢20 could allow a small household to access electricity for nearly a month, currently the same amount cannot guarantee a week's power supply. The average household in Assakae spends between GH¢50 and GH¢80 monthly on electricity access which is three times more than the monthly billing, GH¢15-25. Under the previous system, which was friendly to use and flexible to pay, monthly bills would be sent to residences and the occupants would divide the cost among themselves.

Rising cost, and increasing poor service and unreliable power supply negatively affect household cooperation. Since multi-habitation (a low-income housing strategy) is common among residents with sometimes up to 8 households sharing one meter or 3 shops tapping power from one meter, there is always the difficulty in predicting when the next top-up is due and agreeing on how much each occupant or household is required to pay. For some residences and business facilities, they rotate the prepaid top-up purchasing on a household basis, albeit in some cases it is fraught with overconsumption and financial unpreparedness of

certain households. Again, the apathy for fixing faulty meters exists particularly between landlords and tenants. Overall, the frequent intermittent and unannounced power outages interrupt income generating activities and sometimes damage equipment. Additionally, poor electricity access comes with the difficulty in charging mobile phones at home, and in an attempt to overcome this and stay connected with business partners, some residents and business owners charge at designated shops for a fee of between GH¢0.50-1.00 (depending on the phone type and charging hours) for a full recharge. Notwithstanding these shortcomings in services provision new comers relocate to Assakae, and this in turn influences the mobility and livelihood dynamics of the community.

Voices from Assakae: Housing and services

"Land is a big issue. You see there is no meeting among family members before selling a land, so they sell the land single handedly. And later on another family member will say that he also wants to sell the land so it brings a whole lot of issues. I have a lot of court cases and I do have evidence to show that the lands are mine because I did the paper work. So there is a problem because there are no declarations and the only thing they do is just come to survey the place and then they build" (Kwadwo Yawson, 42 years old male, Building contractor).

"Because I didn't have the chance to go to school I want my kids to have higher education and so I invest in lands. I buy lands and then I resell. Just this morning someone came to me that he has 12 acres of land so I should come and buy for him. So for instance I can buy and then rent to the oil companies or the whites. But I make sure I sell it twice or more of the purchasing price. So in a year I can decide not to work but I will have some money from the land business" (Kwadwo Yawson, 42 years old male, Building contractor).

"Most of the people here get water from the wells. At first, we had a stream here called Eyele. That is what we used to drink in the olden days. But we didn't keep it neat. Now the banks have been used to build houses and people have directed their waste into it. This was when many people moved in here and we first had pipe water. But the pipe water has faded out and people now buy poly tanks and sell water to neighbours. We now have wells and use them for domestic works. But some treat the well water and drink while most of us drink pure water." (Dzigbordi, 38 years old female- petty trader and cooked rice vendor).

"Initially, when I buy GH¢10 credit I could use it for 2 weeks but now it doesn't last for even 5 days. Last Friday I bought GH¢20 and on Monday it was finished. I used it alone. It is the same equipments I use. I haven't bought anything new. I use a fridge, TV, fan and a bulb. I also sell pure water and ice cream. Because of this I put off my fridge, TV, and the fan in the night and when I leave for work in the morning. So I went to the ECG office, but they told me that when you buy GH¢20 they give you GH¢16. ...When there is a fault with the meter we shouldn't pay when they bring the master card to start it. It should be free when it has a fault. That day they took me

GH¢20 plus their lorry fare in and out." (Cecilia, 34 years old- provision shop owner and cooked rice vendor).

"The toilets provided by the government are not enough so there is always a queue. The public toilets need improvement. If you go there right now you will find yesterdays used papers there. All they think of is the money but they should employ people to work there and make the place neat. Some too have their personal (private) toilets that they charge each person who goes there. Most people go down there to queue, but for me in order to avoid the shame of messing on myself, I just get a rubber, get myself cleaned up in my bathroom and then throw it at the rubbish dump." (Nyamekye, 20 years old, unemployed SHS graduate).

"For the refuse, initially the fee was good but now, with a little rubbish you send, they say GH¢0.30 and more. And they wouldn't even consider you but will sack you to take it back or if you are lucky you will be allowed to dump it and bring the balance the next time. This is too expensive for some of us so we dump in the bush or neighbour's backyard." (Maame Enowa, 42years old, form 4 leaver -pure water trader who doubles as cleaner at Zoomlion).

3. Livelihoods and Mobility

We have the Ahantas, Anlos, Nzemas, Twis, Gas, and Muslims here. This town has every tribe in it. Ever since the discovery of oil and gas in Sekondi-Takoradi, each and every day you get to see new faces in Assakae. Different people from different places in Ghana, Nigeria and Mali- come to this city to look for oil job but when they can't find accommodation they come to Assakae (Alex Acheampong, Assemblyman of Assakae, in-depth interview)

Most of the people who move from Sekondi-Takoradi have been ejected from their various houses. The landlords have been ejecting tenants due to the oil and gas people who have come to the city. They now convert their houses to offices and rooms and rent them to the staff of oil companies who are moving in to the community (Alex Acheampong, Assemblyman of Assakae, in-depth interview).

As earlier indicated, Assakae was previously a small farming village largely occupied by the Ahanta ethnic group (particularly those from New Takoradi). Since the early 2000s, with the arrival of the newcomers, the community's population has increased drastically and become ethnically heterogeneous. Currently, there is a blend of people from different tribes- Ahantas, Anlos, Nzemas, Twis, Gas, and Muslims- who have mainly settled in the indigenous core and some parts of the newly developing area. The mobility dynamics in the old town relate more to newcomers relocating to the settlement as tenants, which have facilitated the gentrification process of some buildings and modifications in the mud houses as well as extensions and conversion of facilities to sleeping spaces. This process is gradually but visibly diminishing the notion of the "indigenous core" (indigenes predominately inhabiting multi-occupied large housing blocks- compound houses) as landlords continue to adopt enterprising activities to maximize their economic returns.

The mobility dynamics in the newly developing areas are occasioned by the growing number of homeowners (outsiders and a few wealthy indigenes) who are moving in to the settlement as a result of the gradual improvement in services. This is against the backdrop that residents who have lived in Sekondi-Takoradi but have come from different parts of the country are leaving more densely populated areas of the city such as New Takoradi and Kwesimintsim in search of affordable land and housing and investment opportunities in Assakae. Thus, land formerly used for farming is being purchased by the oil companies and business people and converted into residential properties and commercial buildings, though this is linked to wider land and structural dynamics of the Sekondi-Takoradi housing market. Suffice to add that, the effect of oil cannot happen as an event, instead, oil dynamics ooze through a complex web of social relations and interactions (including chiefs and other community leaders). Residents further noted that although job opportunities remain limited in Assakae, the generally peaceful nature of the settlement and hospitable people explains their choice of relocating to the settlement.

Income-generating activities

At first it was basically farming but now most of the people go out to work. But those who do the white collar jobs are the outsiders. And this has helped the community because now they are exposed to many things. Many people send their kids to school. But there are no jobs here. So some go to farm or do sand winning and the rest buy and sell (Anthony, 40years old male, completed form 5- cementtrader).

Farming still remains an occupation for a relatively small number of residents in Assakae. The farmers, mostly elderly men and women, cultivate both food crops including cassava, plantain, tomatoes, pepper, sugar cane, etc, and cash crops such as oil palm, and cocoa. Some also harvest firewood for household use and home-based food vending activities. The elderly women particularly bring the foodstuff from the farms and sell in the community market. The Thursday market, though not economically active as before, serves as an attraction and trading opportunity for both people from surrounding villages (Whindo, Adientiem, and Mpatado) and the city center. While the local people bring foodstuff and fish, the town/city folks bring household and manufactured items. However, the impact of farming continues to decline as large parcels of land are being purchased by the oil companies and estate developers and converted into residential and commercial buildings (see figure 4.2). This is further worsened by the growing apathy among the youth towards farming, which has greatly declined its future prospects.

In response, most residents find employment in other sectors, predominantly informal economy income generating activities. Some group of male indigene youth, engage in survivalist strategies such as sand and stone winning, and palm wine tapping. Majority of the young women are small container provision shop owners, and petty traders who trade in fresh and smoked fish, and perishable goods, and roam with their merchandise from home to home, while several others work as seamstresses, hairdressers, and mobile phone credit and chop bar operators. On the other hand, the young male counterparts who are also without educational qualification to secure formal employment typically earn income as artisans (masons, electricians, plumbers, tilers) at construction sites, barbers, drivers and conductors,

washing bay operators, and petty traders. The home-based enterprises are mostly concentrated and highly visible in the high density areas of the old town (in spaces in and around the home, and the walkway) though they are spreading fast to the new site. For the new comers, a sizeable number of them were already employed as government or company workers before relocating to the community and they move out of the settlement daily to other parts of the city to do business.

Figure 4.2: Conversion of farmlands into residential units



Source: Field work, 2014

Service availability and income-generating activities

We do have light but the light off is too much. Sometimes 3 times in a day. It has spoilt my TV, and fridge that I use in my provision shop to sell water, ice block, ice cream, and ice kenkey. I haven't fixed it because it will get spoilt again. The issue too is about the prepaid. It gets finish too early, and sometimes I have to rush and queue to top up leaving my shop with a caretaker. It's really disturbing (Cecilia, 34 years old-provision shop owner and cooked ricevendor).

The challenges associated with accessing services such as water, electricity and toilet/sanitation facilities as highlighted in Section 2, negatively affect income-generating activities in Assakae. In the case of electricity, the issues of interrupted power supply and rising cost have tangible and direct bearing on the economic success of businesses. For example, some categories of workers such as tailors, and seamstresses sometimes have to travel to Kwesimintsim or the Takoradi Central Market to be able to meet deadlines with their customers. Similarly, those whose works directly depend on electricity such as hairdressers, barbers, iced block and ice cream sellers experience operational shut down which leads to loss of income. Not unexpectedly, majority of these poorer private business owners do not have the financial means to acquire generators to keep businesses running and

the handful who have generators suffer income loss owing to the high input cost. Also, the case of multiple use of meters by different business owners or shops is associated with problems of overconsumption, uncertainty about next top-up and financial unpreparedness of some users during top-up, as well as apathy towards fixing faulty meters, all of which negatively affect business operations and income. Similarly, some workers close their shops temporarily to join long queues to top up their prepaid meters before they run out of credit, which again takes time away from income generating activities.

To a large extent, access to water also has a direct bearing on income generating activities in Assakae, though some residents and business owners were keen to explain that they were managing the water situation. For example, during dry seasons and periods of water scarcity those whose livelihood largely depend on water such as the water vendors, cooked food vendors and washing bay operators spend extra income to obtain water for sale to the public, cooking and cleaning respectively which, in turn, reduces their profit margins. In the absence of pipe water, large households spend sizeable amounts of their income on accessing water from the water vendors (borehole or poly tank), and for quality concerns, some residents resort to the drinking of sachet water which is expensive for most residents, thereby reducing their household income for economic activities.

The challenges associated with accessing toilet/sanitation negatively affect income generating activities, albeit with less tangible economic bearing. The rising cost of accessing a public toilet and community dump reduces household income that could be invested in income-generating activities. Just as in most houses, nearly all business facilities in Assakae depend on public toilets which may not be located near an individual's workplace, and as a result residents often resort to open defecation and dumping in order to avoid fees and save time used in attending the distant public toilets and also dump workplace waste while at work. Others also go to work in the mornings to meet "take-away toilets" (toilet contained in polythene bags) in front of their shops, and this places a negative label on such businesses/shops. Thus, the lack of quality drinking water and poor toilet and sanitation services pose health concerns, which are likely to increase households' expenditure for medical care.

Residents mentioned that mobile phone coverage in Assakae is similar to other parts of Sekondi-Takoradi. Business owners particularly and residents in general often own multiple simcards to overcome signal loss and dropped call issues and reduce costs. It is worth adding that, mobile phones do not only help in excusing oneself to access the toilet or top up credit whiles at the workplace, but also play a key role in keeping customers in touch with business owners to find out when they will return.

Urban transport, mobility and income-generating activities

The road is not full of potholes but rather man holes. The roads are not tarred and they look really bad so the drivers charge their own prices. Especially when there is an increment in fuel prices the drivers here in Assakae take advantage and increase the fares (Evans, 20 years old male, JHS graduate-mechanic).

Some of the drivers don't want to come here and spoil their cars, so most of the vehicles used here are very old. Even for some of the trotros when you are inside you can see the road from the floor of the car and when it rains and they hit a 'manhole' it splashes water on you. This is our number one worry since most people go to town to work and those who remain here sell by the roadsides and they complain about the dust (Evans, 20 years old male, JHS graduate- mechanic).

Located on the periphery of Sekondi-Takoradi, Assakae has transport links to other parts of the city and most residents in the old and new towns rely on public transport in the form of trotro (local minibuses) and taxis, with some level of private car ownership in the newly developing areas. However, the road infrastructure is in a deplorable condition, as the main road leading to the town is untarred (only a small section that exits the community to the town is tarred) with a lot of deep potholes (nicknamed by residents as manholes). The transport problem is linked to the broader issue of poor housing planning and community layout. Although some attempts have been made to reconstruct and expand the road, they have suffered the "human face" syndrome as the efforts have often been met with the issue of compensation and cooperation by the local authority and residents respectively (those whose buildings and shops are likely to be affected).

The bad state of transport services negatively affects mobility and income generating activities. For example, the rising price of trotro and taxi fares (which is the case in other parts of the country) due to increasing petrol costs is exerting a burden on income-generating activities and reducing profit margins. Currently, it cost GH¢0.80 to travel on a taxi from Assakae to Kwesimintsim and GH¢1.50 to Takoradi Central Market while it cost GH¢0.50 to travel on a trotro to Kwesimintsim. Additionally, majority of the vehicles (trotros and taxis) used as public transport are outmoded and have outlived their useful years (life span). Some residents expressed their dissatisfaction with the situation where some vehicles that have become exhausted elsewhere in the city finally end up in the community's lorry station. They again mentioned that, the lack of direct access route by cars from the settlement to the farming areas increases travel time and cost, and reduces the quantity of foodstuff brought by the farmers (who currently walk with their produce/load on the head) for the household and market, thereby making foodstuff expensive. Apart from the oil magnets, this is one reason that locally explains the increasing cost of living in the settlement.

The above notwithstanding, these modes of transport help convey commuters who move out of the settlement daily to town to work, and traders who visit the Takoradi Central Market (as early as 5:00am) to buy foodstuff and goods for their households and home-based enterprises, as well as residents who visit families and friends in Kwesimintsim and neighbouring areas. Although passengers complain about the rising fares, they gravely bemoan the deplorable state of the roads and vehicles as in some cases, passengers have to suffer water splashes from beneath the vehicles (trotros), cuts from worn out seats and body parts, and general bodily weakness after a trip. Similarly, the petty traders and home-based traders who mostly operate along the roadsides suffer from the dusty roads, and aside the health effect, it places a burden on their income as they have to buy water to constantly keep the road wet and also clean items in the shops.

The location of the bus terminals also results in some users (outside the old town) having to walk a considerable distance to be able to access trotro and taxis, and this becomes worrying especially in the early and late hours of the day. The locational problem is further worsened by the inadequate number of vehicles which leads to long queues during the peak periods. Also, waiting until a trotro is full before beginning a trip can result in long waiting times during off-peak periods and make journey times less predictable. For these reasons, although expensive, people prefer to use taxis particularly when they are pressed for time to meet a business appointment or when the return journey involves carrying bulky goods. All of these issues discussed above come to play to influence residents' movements within and outside the settlement. Residents try to restrict their movements to Assakae as they make bulk purchases and complement it with daily purchases from traders within the settlement. They also use the mobile phones to limit travels beyond the city to visit family and conduct business in rural areas, and this releases the financial pressures associated with visiting relatives.

Voices from Assakae: Livelihoods and Mobility

"Different people have come here, we have the Ahantas, Fantes, Nzemas, Anlos, Twis, Gas, and Muslims (who are mainly in Effiakuma). Things are changing fast here. In those days, when you wanted to buy a land you were given a stone to throw and where ever the stone fell that was the boundary of the land. But now it isn't like that. The outsiders have bought lands and built houses and moved in here. The place is now busy, you can get everything here without going to the market circle. Previously when I was young, when a car came here in the mornings it was only in the evenings that it came back again." (Justice Kobby, 30years old, JHS graduate, Welder).

"Our major needs are the roads and the gutters. That is our major challenge. They pour their waste and urine on the road so it is bad. But if we had drains, then we would have connected our bath rooms to the drains to send our waste water away. If the road from the main junction to town was done then getting access to car wouldn't have been difficult. Because the road is bad, they add GH¢0.10 to the fare. So we always fight with the drivers. When it is around 8 to 9pm there are no cars here because they don't want to come here and drive to town empty. But if the road was good then there would have been free flow." (Evans, 20 years old male, JHS graduate-mechanic).

"The road affects the farmers. They always hire the big trucks that carry the sand because those ones have the strength to carry their farm produce. They don't have any special cars that carry their foodstuff from the farm for them. So most of the farmers who don't have the money only carry small amount in pans on their heads all the way to this place". (Abu-Bakir Wilson, 59 years old, form 4 leaver -motor and bicycle mechanic and farmer).

"We have people who go all the way to Sekondi to work so if we had jobs here, it will help us. But the road network to the farms is the most important. It will propel the farmers to work harder because they will have easy access to the farm and the market.

Again most farmers produce perishable goods so we need to help them so they don't make losses. But if cars were around and the roads were good they could have brought 10 bags or more of foodstuff." (Abu-Bakir Wilson, 59 years old, form 4 leaver -motor and bicycle mechanic and farmer).

"The drivers complain about the bad nature of the roads that it damages their cars. This has increased the lorry fares. For example from Takoradi to Anaji the taxis charge GH¢5 and from Takoradi to Assakae is also GH¢5 and when you complain they say it is the road. They have to do maintenance work and other things. But if the roads were okay the cars would be coming fast say every 10minutes but because the roads are bad the taxi drivers have come here to exploit us because they charge us more for a short distance." (Evans, 20 years old male, JHS graduate- mechanic).

4. Future Challenges

- Large parcels of land in Assakae are being purchased by the oil companies and estate developers and converted into residential and commercial properties. The indigenous core is experiencing uncontrolled development and infilling while the newly developing areas are undergoing unplanned intense development (storey buildings and mansions). This situation is occasioned by the exploration of oil and gas in Sekondi-Takoradi, leading to migration of local and foreign nationals to Assakae. In response to the increasing demand for housing units than available stock, in the old town, landlords have resorted to evicting tenants and converting residential apartments into stores and offices.
- Farming has in the past contributed to the economic life of residents in Assakae, though this primary occupation and its economic merits are fast declining. Unemployment, particularly among the youth, persists and in an attempt to leapfrog over their unemployment tendencies, most residents earn a living through low paid jobs in the informal economy with little future prospects. Technical and vocational training of youth, establishment of a factory in oil-related jobs, and construction of access routes from the settlement to farms, as well as revamping of the community market were highlighted as the way forward to improving living conditions.
- Residents mentioned several amenities and resources, that are currently lacking in Assakae. The five most frequently highlighted were; building a community clinic or hospital as the current CHIPS compound is inadequate and often out of stock of drugs; construction of the main road connecting the settlement to the town and farming villages to reduce transport cost and attendant effect on household income and prices of farm produce respectively; a police station to control crime and maintain peace and order; and recreational spaces that can be used for sporting activities and entertainment; as well as a junior and senior high school. Residents were futuristic about the provision of these facilities because of the available lands and the rate of development in the community.
- Although far from ideal, access to services such as water, electricity and toilet/sanitation facilities are not currently a major factor in decisions to move out of Assakae, as the settlement is still developing. Residents are confident about the settlement's future development, and improvement in key infrastructural services in the near future.

Nevertheless key services are in need of upgrading, and the priority for such improvements are as follows:

1. Local Transport: the settlement's location on the city fringes, the poor quality of roads and vehicles, combined with higher trotro and taxis fares (due to the increasing petrol costs facing the rest of Ghana) and body injuries hinder mobility and transport links to other parts of Sekondi-Takoradi. Improving the conditions of roads and better management of trotro stations are fundamental to improve the local transport situation, thereby increasing income-generating activities and profit margins.
2. Toilet/Sanitation: the public and private toilets are inadequate and unsatisfactory. The government should build more public toilets in the short term and incentivise landlords and homeowners to incorporate toilet facilities in their properties in the long term.
3. Water: residents expect that pipe borne water should be available in their homes, made reliable and affordable, and the well water should be made free to all, as this will decrease household expenditure on water and increase income for economic activities.
4. Electricity: the introduction of the pre-paid meter system should be made more user- friendly, less expensive and service quality must be improved as this will promote cooperation among household members and sustain economic viability of income generating activities. For the young men, adjustments on the pre-paid meters to make them less consuming is seen as the solution to this issue while the elderly propose a return to post-pay monthly billing.
5. Mobile Phone Signal: the network signal quality is erratic and comparable to other areas of Sekondi-Takoradi, and is not considered an area of concern.

Settlement Summary 5: Kojokrom

1. Background

Our most pressing need is the re-establishment of the railway system and business. The railways gave birth to this town and it collapsed with it. Hence its re-birth will awaken our city again. The reason being that, our women used to sell there and the men also had a lot of job opportunities that earned them a living. So the government should do all it can to ensure its re-birth (Samuel, 35 years old male, JHS leaver, auto-mechanic)

Previously when the train was in operation, people used to bring foodstuff like, plantain, cassava, pepper, palm nut and so the residents here will buy some and sell. People from all walks of life came to buy from us here so we used to make money. But now since the trains are not working and the villagers do not come, we have lost everything. Because of these things people are unhappy in this town (Aba Acquah, 68 years old female, petty trader)

Kojokrom is a low/middle income settlement located on the Eastern periphery of Sekondi-Takoradi, established by a family of wealthy Ahantas. It is 20 kilometers from the city centre, Takoradi, and bounded by other dormitory towns such as Ketan, Inchaban, and Essikado. The name of the settlement "Kojo-krom" is literally translated as "Kojo's town" and this is traced to the name of the first king Nana Panyinyena. Generally, the opinion leaders in the area interpret the name Kojokrom to mean a town of wealth. The community stretches to cover other small towns such as Mempentemsre and Darkokrom.

The population of Kojokrom has been growing very rapidly and is characterised by a mix of indigenes and migrants, with newcomers coming in since the early 2000s. With a small population of 1,026 in 1970 and a steady increase to 1,411 in 1984 it exploded to 9,515 in 2000. A decade later, recent census data estimates that the population in 2010 was 37,722⁷. Starting as a small village, Kojokrom's development can be largely traced to the making of Kojokrom as a railway station on the western railway where the lines from Sekondi join that from Takoradi. The railway station is a notable landmark in the town. The railway line and the station made Kojokrom a popular commercial centre as the railway system supported the transportation of both passengers (to and from Sekondi and Takoradi and beyond) and goods (foodstuffs in particular from villages along the railway line to the interior), though the same cannot be said of it at present as this mode of transport which provided a lot of livelihood opportunities has virtually collapsed. Currently, there is some service between Takoradi and Tarkwa and Awaso, in connection with the haulage of bauxite from Awaso to Takoradi Harbour. In addition, the rail line between old Sekondi railway station and Takoradi Harbour is being reconstructed for the purpose of converting the Sekondi-railway station into a container terminal for the Takoradi Harbour.

⁷Ghana Statistical Service (GSS), 1970 Population Census; GSS, 1984 Population Census; GSS, 2000 Population and Housing Census, GSS, 2010 Population and Housing Census.

Kojokrom has experienced rapid urbanization of its farm lands much of which have been converted to residential properties, and vacant spaces along streets and in the frontage of homes have also been occupied by structures for all kinds of commercial activities. Also, previously acquired plots of land in Kojokrom and large parcels of farmland in the surrounding areas of Kojokrom such as Mempentemsre and Darkokrom are continuously being acquired by individuals and muliti-national companies for commercial developments. The consequences of the increasing sale of lands for residential use are that first, land value have appreciated and this has occasioned the emergence of double sale of lands particularly to the 'oil' migrants and companies, and private investors who tend to offer good prices, and secondly it has created access concerns and disputes over land between wealthy indigenes and migrants.

Residents further mentioned that though the processes of acquiring land has not changed the pace of land acquisition has quickened in the Kojokrom and its surrounding areas as it is in other parts of the Western region largely as a result of the emergence of the oil and gas economy in the region. Acquiring land for speculative purposes has caused an upward shift in the prices of land. Consequently, land has become very expensive and accessible only to wealthier families. The prices of vacant building plots now range between GH¢5,000 and GH¢15,000. The residential areas are also undergoing changes and with the recent influx of migrants the population is becoming more mix. Also, new residential properties being developed have contributed to the changing appearance and conditions of the area. This is likely to continue with added consequences for access to and control of land as well as housing and services.

2. Housing and Services

Previously most of the available lands were used for farming but at the moment there are a lot of buildings here. In fact the number of houses has been increasing and housing conditions are getting better now and because of that, the lands too are becoming very expensive to buy. The houses are also becoming very expensive to rent hence making cost of living very high here and comparing the rents the new buildings attract very high prices than the old buildings (A. K Moses, 63 years old male, Retired Quality Control Officer at Ghana Cocoa Board).

In terms of housing, a lot of single rooms and multi-occupied large housing blocks (compound houses), made with mud and cemented coatings on the outer parts, are still visible in the older indigenous settlements though some are undergoing renovation works and slight infilling on available spaces as people build houses or add extensions based on the family size. The older sections of the community are also characterised by high population density with virtually no streets as the alleys have even become spaces for home-based traders (see figure 5.1). The gentrification of these building is influenced mainly by the influx of migrants who seek accommodation as tenants in the settlement. Family members in the diaspora also contribute towards the renovation/rehabilitation of family homes. Also, given the fast pace of population growth, some landlords have resorted to converting facilities such as kitchen and store room into sleeping spaces and such practices often have rippling effects on the availability of services such as toilet facilities.

Figure 5.1: The housing stock of Kojokrom with the railway line running through the town



Source: Field work, 2014

On the contrary, the appearance of the residential landscape outside the indigenous core is quiet modern in outlook with good layout and experiencing intense development with new single flats, estate houses and multi-storey buildings and architecturally diverse designs. The main challenge relates to the lack of street names and house numbers though several reports have been made to the Sekondi-Takoradi Metropolitan Assembly (STMA). Residents living close to the Ahantaman senior high school also complained about how the existing fencing hinders the free movement of vehicles especially fire service trucks in the event of fire outbreaks. Majority of the residents living in the lower parts of the settlement (low-lying and muddy areas) emphasized how the few narrow and choked gutters make flooding a recurrent event thereby destroying properties and inhibiting both human and vehicular movements.

In terms of rent, a single room (made with mud) costs approximately GH¢25 per month, and single (block) rooms without porch cost GH¢40-50 a month while a chamber and hall (rarely available in the old town) costs between GH¢80 and 150 a month (depending on the housing type and available services). In all of these, a minimum of 2 years advance payment is required, and this comes as a burden on household income though a few landlords allow flexible payment plans. On the average, most of the compound houses have about 5-8 persons per room. In addition, housing facilities such as kitchen, bathroom, etc and access to basic services including water, toilets, and electricity do not seem to be the primary considerations for potential residents to the community as in most cases, people want to first secure accommodation due to the general housing pressure in the city of Takoradi.

Water

Only a few people have pipe water in their homes, and for the rest of us, some use our community reservoir made with concrete while others buy from the standpipes. We

drink the pipe water and use the water from the reservoir for washing, cooking, and bathing. The community reservoir has really helped us but now it doesn't function as before. Anytime the reservoir gets dirty we make contributions and get someone to clean it and so it's usually not for sale (Fausia, 24 years old female, SHS leaver, Seamstress).

The increasing pace of population growth in Kojokrom is not commensurate with the expansion in services and facilities including water. Similar to most settlements in Sekondi-Takoradi, a handful of houses in Kojokrom have access to in-house pipe borne water (from the water works at Ntwaban and Aboase) which is fraught with unreliable supply (for up to 2-3 months) with no prior notice about any possible flow from the water provider, Ghana Water Company Limited (GWCL), which normally occurs for few hours usually in the early morning or late at night. As a result, majority of households depend on the community reservoir, private vendors and sachet water for their drinking and domestic purposes.

For the majority of households unable to access pipe borne water directly from their homes or at the community reservoir, they buy pipe water from private vendors (polytank kiosks) for GH¢0.30 per 34 liter bucket or between GH¢0.30-0.50 in times of severe water shortage. Residents who purchase water from the vendors tend to spend ample proportions of their time and income on accessing water as compared to those who have in-house connection and pay monthly bills to the service provider. Generally, an average household size of five persons can spend between GH¢2.50–3.00 on pipe water per day that is about GH¢70-80 per month (which is three times more than the monthly billing, GH¢20-30), thereby exerting a burden on income-generating activities and reducing profit margins. These vendors mostly operate in close proximity to residences, usually 5-10 minutes walk. The wealthy households resort to the drinking of small 500ml (purified) sachet water that costs GH¢0.15 per sachet or GH¢3.00 for the entire bag of 30 sachets. Meanwhile, outside the indigenous core where a lot of the self-contained dwellings and storey buildings can be found, even though most of the buildings have pipe infrastructure connected to the service provider, water supply is not extended to most premises. Consequently, some homeowners have mechanised bore holes that supply treated water through the taps. Rainwater is also harvested and used for bathing and washing.

Toilets/Sanitation

Toilet is a problem here because most of the old houses don't have toilets. We use the public toilets which are not enough, and in the mornings there is a long queue and the place smells bad. Because of the fees people don't use the toilets but ease themselves in polythene bags and along the railway lines (Agnes Quainoo, 56 years old female, SHS leaver, Teacher).

Similar to the water situation, there are differences with respect to residents' access to toilet facilities as majority of them depend on private and public toilets. Unlike the newly developed areas, only a small number of households in the older sections of Kojokrom, have in-house toilets which are often kept locked by the landlords for their families to use, while others (tenants) access them under supervision. The toilet problem relates more to

inadequacy, unaffordability, and quality concerns. The available number of public and private (commercial) toilets is inadequate, with an average capacity of 8 cubicles for both males and females. Accordingly, the inadequacy of toilet facilities has resulted in considerable queues especially during the morning rush hours, before residents leave for work and school. The government toilets (KVIPs) are not well maintained with a lot of flies and pungent smell as compared to the privately managed ones which are well kept with toilet rolls, and soap for hand washing. Though the former one charges GH¢0.20 per visit most residents visit them with reservations, unlike the latter where a majority of the residents prefer notwithstanding the relatively high fee of GH¢0.30-0.50 per visit. Additionally, although residents admitted that most of the facilities normally operate 24 hours, they argued that the issues of cost and distance (as some walk over 15 minutes) have culminated in an emerging practice where people defecate in polythene bags (and later dumped in waste bin or neighbours' backyard in the cover of the dark), gutters and along the railway lines as well as church and school compounds which comes with a lot of environmental and health threatening risks.

Residents again consider access to sanitation facilities and services a major challenge as the available skips are always overflowing and the dumpsite is inadequate to contain the increasing volumes of waste as a result of the growing population. In the face of the inadequate facilities, some residents have adopted certain disposal practices albeit in most cases, illegal with dire health consequences. They include; disposal in open pits at the back yard, open burning, and open dumping in gutters and along the railway lines. Such practices are further exacerbated by the rising cost of waste disposal. For instance, while it cost a collection fee of GH¢1-3 (depending on the quantity) to access the door-to-door collection services by the informal waste collectors (*kaya bola*⁸), it is between GH¢0.50-1.00 (depending on the quantity) for a good number of residents who use the pay-as-you-dump service at the community dump. Other issues such as disagreements among residents especially tenants with respect to cooking space, scrubbing of the washroom, sweeping, and general cleaning of the house were also highlighted by some residents.

Electricity (power for charging mobilephones)

The frequent black outs is not helping and its very expensive using the prepaid. This morning, the GH¢10 worth of credit I bought is finished though it has not been one weeks since I bought it (Joseph Kwasi Ackah, 79 years old male, Pensioner).

The majority of homes in Kojokrom are connected to the national grid, Electricity Company of Ghana (ECG), or tap power from neighbors with supply albeit in some cases, illegally. The settlement, however, is not exempted from the frequent power cuts (i.e. light off) which is part of the broader energy supply challenges at the national level. In most cases, electricity is interrupted without warning on more than five occasions for varying lengths of time within the week. Such sudden interruptions of power (on and off) without prior notice are worrying as they can cause damages to electrical items that are frequently used by residents such as fridges, TVs, etc.

⁸ *Kaya Bola* is an informal name for waste collectors who carry solid waste from residences and markets (in sacks, baskets, on push trucks, etc.) to a skip or dumping sites for a fee.

For the majority of residents, the most pressing issue concerning electricity supply is the introduction of prepaid meters to replace paying monthly bills. Under the previous system, which was friendly to use and flexible to pay, monthly bills would be sent to residences and the occupants would divide the cost among themselves (usually about GH¢25-40 per month per house). Under the landlords' supervision in the case of tenants, the bill was often shared on the basis of the electrical items used by occupants such that those with more paid more. The main problem with this system as residents recounted was that in spite of electricity availability and service quality, customers were always billed. In contrast, the prepaid system requires consumers to preload a card with credit in order to access electricity. The main challenges associated with the new charging system include; frequent faulty meters, inserting master cards to restart a meter when it shuts down, and light going off even when there is credit on the prepaid meter.

Besides quality of service issues, a major concern for residents is recent changes to the cost associated with electricity, which has a bearing on whether a household will have access or not. This is against the backdrop that, residents perceive the prepaid meters to read faster and consume a lot of current. Although at first preloading a card with GH¢15 could allow a small household to access electricity for nearly a month, currently the same amount cannot guarantee a week's power supply. The average household therefore spends between GH¢80 and GH¢100 monthly on electricity access which is considerably more expensive than monthly billing. In a context where many residents live in compound houses with other families, multiple sharing of meter has led to disputes over who should reload the card when the credit finishes and power is suddenly cut off. As a result, residents prefer that the prepaid meters be allocated to individual household units.

Voices from Kojokrom: Housing and services

"Land is too expensive now. Even our lands are finished unless you go far to Mementemsre and Darkokrom. Or in case someone is building and is unable to complete the building project then they will sell it out to you. But if you go to the chief's palace and they have land it is less expensive and the process is simple." (Aba Acquah, 68 years old female, petty trader).

"The oil impact is not an easy thing. I have personally experienced the oil effect. My landlord nearly had me kicked out before my rent expired. His wife has sole control over everything in the house. And as for the rent they increase it every year. She decides the price of utility bill for each room without any calculation or receipt. So rent is not an easy thing here. And this has been worsened with the oil discovery." (Alex Owusu, 50 years old male, University graduate, Teacher).

"If you don't have GH¢1000 and above then forget about rent in this town. It is very bad now compared to some years back. Students are able to pay in advance and renew each year compared to those of us who want it for permanent or long term basis. The oil people have also made the issue worse." (Salifu, Osman, 37 years old male, JHS leaver, dealer in home second hand tyres).

"This town is part of the oil city and so rent is now high. Our houses in the new site are not of middle or third class calibre but are of high class. The old town is quiet moderate but those at the outskirts are very high. A single room may cost about, if it is without toilet and bath then is going to be GH¢40 but those furnished with hall and kitchen will cost GH¢150." (Fausia, 24 years old female, SHS leaver, Seamstress).

"Previously, water was not a problem but now it is a big problem. I heard we get our water from Aboase and not the closer point Ntweaban. The toilet is also a major problem and it is leading to the dumping of polythene bags containing toilets almost everywhere, both in classrooms and churches. So we need public toilet for proper sanitation". (Evelyn, 56 years old female, Polytechnic graduate, Teacher).

Kojokrom people need more KVIP toilets. Because people walk far away to access the public toilets they tend to defecate anyhow. The public toilets are always smelly and you have to join long queues. The improper disposal of refuse was not the case when dumping at the community dump was free. There even used to be sometimes where people whose lands were waterlogged will even encourage dumping to fill in the land but this is not the case now. The vehicles conveying the garbage are mostly uncovered and overloaded so they end up spilling rubbish on streets and all these are very unbearable." (Regina Baidoo, 38 years old female, tertiary graduate, Teacher).

"In my area, the garbage site is heaped and erected and that is so dangerous. No Zoomlion (local waste company) conveys this and this is an eye-sore. This situation is even worse in the markets and all these I believe have greater effect on us. Because the food sold at the market and in open spaces are mostly exposed and we end up consuming our own garbage." (Regina Baidoo, 38 years old female, tertiary graduate, Teacher).

3. Livelihoods and Mobility

I can say that the Ahantas are the indigenes and they dominate here and they were the first settlers of this town. But aside that we have other Fantes, Wassas, Ewes, Gas, and Northners as well as several group of tribes also here even including the outsiders (Margaret Amoah, 46 years old female, Tertiary graduate, Teacher).

As earlier highlighted, the Ahanta ethnic group primarily populates Kojokrom. For the past fifteen years with the arrival of the newcomers originally from different parts of the country, the community's population has increased drastically and become ethnically heterogeneous. Today, Kojokrom is a mix of people from different tribes- Ahantas, Ewes, Nzemas, Twis, Gas, and Muslims- who have mainly settled as tenants in the indigenous core and home owners in the remaining sections of the settlement and have gentrified the old center of the town. This development can be largely attributed to Kojokrom's combination of good transport links to key commercial centres (including the CBD), proximate location to surrounding suburbs and regions, and relatively available and affordable accommodation rates. Historically, Kojokrom's emergence as a migrant destination is related to the hitherto functioning railway system mentioned above, which transported railway workers on transfer from those parts of the country covered by the rail system as well as some teachers and other

government workers. Later on, most of these workers acquired lands and built properties in the community. All of these antecedents in turn have had implications for the mobility dynamics of the settlement.

The recent oil find has also contributed to the mobility dynamics of Kojokrom as more people are still relocating to the city of Sekondi-Takoradi in search of employment and investment opportunities. Available lands (mostly previously acquired) are being purchased by the oil companies and business people and some properties are being converted into offices and commercial buildings, though this is linked to wider land and structural dynamics of the Sekondi-Takoradi housing market. Also, landowners' continuous attempt to maximise economic returns from rental income is changing the ratio of tenants to family members and this in turn has implication for the indigenousscore.

Income-generating activities

The train business really helped me when I was a child. I used to sell water after school and also in the evening we sell rice along the route for chop money. There were also cheap food stuffs and fish. Here was like a depot but now everything is out of place and it is no longer in operation. This town is now a quiet place, even my dad was affected by the employment retrenchment and this affected our family and education. It was also a means of transport to school since it was free for students (Regina Baidoo, 38 years old female, tertiary graduate, Teacher).

As earlier mentioned, the local economy previously thrived on the railway system that allowed for the transportation of passengers and minerals as well as trade of goods and services. Kojokrom served as a stopping point for travelers from other regions and surrounding hinterlands to sell their foodstuff while the residents from the settlement traded in fish and other household items. Apart from the trading activities, there was a workshop that serviced the trains, wagon shops and machine shops for spare parts, carpentry shops, loaders (labourers), security, etc and all of these jobs opportunities created avenues for most people in Takoradi, especially Kojokrom to earn a living. Residents highlighted that, lack of investment in the railway system and maintenance works, financial misappropriation, delayed salaries, and workers apathy all culminated in the retrenchment of most workers and the collapse of the railways. The effects are that, all the ancillary railways-related job opportunities have been lost, prices of foodstuff have become expensive with low purchasing power, rising unemployment and accompanying social vices (teenage pregnancies and drug abuse) among the youth.

Kojokrom functions as a dormitory town for various workers who work in the regional capital and its environs though quite a fairly large number of residents also are engaged in the wood industry. Such residents either engage in trading of bulk planks of various woods (timber merchants) or are carpenters, a prominent feature of the landscape. A large number of the working population also earn a living in other informal sector economic activities as artisans (masons, bricklayers, tilers, plumbers, electricians), tailors, auto-mechanics and drivers, barbers, and petty traders. The male population primarily undertakes these income-generating activities, while their female counterparts typically earn an income as cooked food

vendors, cosmetics and provisions shop traders, mobile phone credit vendors, dressmakers, hair (salons) dressers, and table-top traders. It must be added that these livelihood opportunities occur along main roads and in the open spaces in the residential areas. Although the local economy is not as vibrant as before, residents are content with the peaceful nature of the settlement and very futuristic about the resurgence of the local economy through the rebirth of the railwaysystem.

Service availability and income-generating activities

Kojokrom has grown fast and so electricity supply should be expanded with high capacity transformers. The light on and off is affecting our machines and businesses. The ECG people don't give any notice. Even school children are complaining. We are paying too much for the prepaid meters yet we don't get light to work (Joseph Kwasi Ackah, 79 years old male, Pensioner).

The challenges associated with accessing services such as water, electricity and toilet/sanitation facilities as highlighted in Section 2, negatively affect income-generating activities in Kojokrom. In the case of water, the issues of lack of supply and rising cost have tangible and direct bearing on the economic success of businesses. For example, those engaged in the selling of cooked food often rely heavily on water to cook and prepare food. Problematically, issues about water quality means that they are reliant on treated sachet water, which is more expensive than water sourced from a pipe or bore hole, and therefore reduces potential profits. In some instances, customers even become suspicious of the water sources used by food vendors and this usually raises negative signals about such food joints. Additionally, an average household size of five persons can spend between GH¢2.50–3.00 on pipe water per day, exerting a burden on income-generating activities and reducing profit margins of poorer households.

In the case of electricity, residents are facing the double burden of poor availability and rising costs linked to the introduction of prepaid meters. For example, workers such as tailors, dressmakers, provision shop owners, hairdressers and barbers whose activities heavily depend on electricity either experience a marginal reduction in profits or at worse lose customers due to operational shutdown during periods when the meter has not been topped up or there is power cut. This negatively affects poorer business owners who lose customers to those who can afford to keep their prepaid meter topped up or risk going the extra length to keep to their appointments and incur high input cost. It is also more difficult for families and home-based enterprises to budget, as they are unable to predict when their credit will finish. Moreover, the loss of power damages electrical items such as TVs, fridges and freezers, and can result in cooked food preserved in fridges and freezers going bad thus resulting in additional expenditure on food.

The economic impact of poor sanitation on income-generating activities is often indirect, but still very tangible. Against the background that a large section of the population lack access to toilet facilities in their homes, resources (time and money) that could be used to support a livelihood activity are sometimes diverted to pay for using public toilets as well as waste disposal. By extension, proper waste disposal methods and affordable services are likely to

minimize the hazard of potential environment related health diseases (e.g. diarrhea, cholera, etc) thereby reducing the expenditure on healthcare and increasing income for economic activities. Mobile phones, which can usually be charged both at work and at home, have helped mitigate the issue of having to temporarily leave one's business (not just for the toilet), as they enable customers to contact business owners and find out when they will return. The mobile coverage in Kojokrom, which is deemed comparable to other parts of the city, suffers from common issues such as random signal loss, and dropped calls. Residents often own multiple sim-cards to overcome signal losses and reduce costs, as it is also more expensive calling cross networks.

Urban transport, mobility and income-generating activities

Transport is not a problem, if you want to arrive early then you need to go to the station early. You can get access to cars at anytime. It cost 1.20 to travel on trotro to town. They always increase the fares when fuel prices have increased (Adriana Bassaw, 48 years old female, Tertiary graduate, Teacher).

Private car ownership is gradually increasing in Kojokrom, however, this means of transport is beyond the financial reach of most residents who mostly rely on public transport in the form of trotro (local minibuses), and taxis. Trotro provides good connectivity to other economic hubs in the city, with commuters moving out of the settlement daily to town to work and traders travelling to the Takoradi Central Market (as early as 5:00am) to buy foodstuff and goods for their households and home-based enterprises. The problem with the trotro transport relates to inadequate number of vehicles which leads to long queues during the peak periods, in the mornings and evenings. Additionally, the road infrastructure is in a deplorable condition, as majority of the adjoining routes connecting the major road are untarred with a lot of deep potholes (see figure 5.2). Similarly, some sections of the settlement are not motorable because they are connected with narrow footpaths and as a result residents have to walk considerable distances from the last (bus) stop. This becomes challenging for those who travel with bulk purchases and residents who reside far from the lorry station as well as traders who travel to the market early mornings to secure their supplies. For these reasons, although expensive, people prefer to use taxis particularly when they are pressed for time to meet a business appointment or when the return journey involves carrying bulky goods.

The challenges associated with moving in and out of the area are incorporated into the income-generating activities of poorer residents engaged in petty trading, and the selling of provisions and cooked food. Where possible, residents try to restrict their movements to Kojokrom as they make bulk purchases (mostly weekly) and complement it with daily purchases from the market women and home-based traders operating within the settlement. Similarly, business owners try to reduce their own mobility time and costs by locating economic activities as close to the roadside as possible in an attempt to benefit from the potential purchasing power of passersby. These strategies are generally common in the settlement though they are more pronounced amongst the female residents, who incorporate their household chores and childcare duties as part of their broader mobility and income generating strategies. Moreover, residents use the mobile phones to limit travels beyond the

city to visit family and conduct business in rural areas, and this releases the financial pressures associated with visiting relatives. In many cases, rather than visiting families in person, residents will send money via the mobile money platform.

Figure 5.2: Poor roads affect vehicles and passengers in Kojokrom



Source: Field work, 2014

Voices from Kojokrom: Livelihoods and Mobility

"The train business was very good. We had trains for transporting minerals like bauxite and manganese. We also had passenger trains which included the express, sleeper, and normal. The express only stopped here and Tarkwa, one went to Accra using the Huni-valley junction and the other from there to Kumasi. On the route here was a ladder that run from the edges serving as over-head bridge for pedestrians. So Kojokrom was really lively, and it was very helpful because people were making money". (Alex Owusu, 50 years old male, University graduate, Teacher).

"The people who sold food stuffs to us from the trains also bought fish from us and that was business as usual. But because of the collapse of the train business we suffer to get food and the ones around are expensive. So all I can say is that, this city has collapsed with the train business and its re-birth will do likewise for the city." (Samuel Onwatsuku, 35 years old male, JHS leaver, second hand tyres dealer).

"Most jobs have collapsed here including the ones created by the then Nkrumah administration after independence. Now the railway systems are very poor. They function no more as there is no passenger train to bring foodstuff. The Accra to Kumasi railway lines function no more not to talk about the one linking Tarkwa." (A. K. Moses, 63 years old male, Retired Quality Control Officer at Ghana Cocoa Board).

"The railway system is very bad. The head office is right here and you go there and see them doing nothing. Everything has collapsed and it is very ineffective. It does not go very far not to even talk of Tarkwa and Kumasi. Infrastructure is very poor here in Takoradi but we have all the resources. When it comes to development we should be first not Accra or Kumasi. They have focused everything in these areas at the expense of Western Region but when it comes to resources like cocoa, timber, gold, everything, we have them." (Papa Anum, 51 years old male, Polytechnic graduate, senior level worker at Cocoa processing company).

"We don't have a problem in getting a trotro or taxi, but it is the fares that bother us. The roads too are narrow and full of manholes. The open gutters also make night movements risky at times, especially when it rains, the rails and roads get flooded." (Grace, 54 years old female, Secretariat school graduate, Teacher).

4. Future Challenges

- Residents are keen to see the reserved free zone lands in Kojokrom being put to good use by the government (e.g. establishment of industries, offices and retail outlets, etc) to reduce the prevailing unemployment levels particularly among the youth. Local initiatives have to be created to increase job opportunities, such as vocational training centers offering mostly secretarial services and artisanship, seam stressing and cosmetology, and apprenticeships in carpentry and other manual professions.
- Kojokrom needs a modern transport terminal. The settlement is expanding and for its proximate location such a facility will reduce mobility pressure on Takoradi for transport services and facilitate travelling to surrounding regions including Cape Coast and Accra. More importantly, the vibrancy of the local economy will largely depend on the rebirth of the railway system. For instance, the Sekondi-railway station should be reconstructed and converted into a container terminal.
- Residents mentioned several amenities and resources, that are currently lacking in Kojokrom. The five most frequently highlighted were; building a community clinic or hospital as the CHIP compound provide limited medical services; expansion and renovation of the community market to encourage all day market activities (in addition to a market day) and regulate the emerging dominance of market queens; construction of a modern police station to control crime and maintain peace and order as their current station and quarters are dilapidated; and recreational spaces that can be used for sporting activities and entertainment; as well as a community library to provide resources and learning spaces for children in order to reduce the time spent on watching video and playing games. Residents were futuristic about the provision of these facilities because of the relatively available lands and the rate of development in the community.
- Although far from ideal, access to services such as water, electricity and toilet/sanitation facilities are not currently a major factor in decisions to move in or out of Kojokrom, as the housing pressure persists in Takoradi. Residents are positive about the settlement's future development, and improvement in key infrastructural services in the near future.

Nevertheless key services are in need of upgrading, and the priority for such improvements are as follows:

1. Water: residents expect that pipe borne water should be available in their homes, made reliable and affordable, as this will decrease household expenditure on water and increase income for economic activities.
2. Toilet/Sanitation: the public and private toilets are inadequate and unsatisfactory. The government should build more public toilets in the short term and incentivise landlords and homeowners to incorporate toilet facilities in their properties in the long term.
3. Local Transport: the poor quality of roads and vehicles combined with higher trotro and taxis fares (due to the increasing petrol costs facing the rest of Ghana) reduces residents' mobility and transport links to other parts of Sekondi-Takoradi. Improving these conditions is fundamental to increasing income-generating activities and profit margins.
4. Electricity: the introduction of the pre-paid meter system should be made more user- friendly and affordable, and service quality must be improved as this will promote cooperation among household members and sustain economic viability of income generating activities.
5. Mobile Phone Signal: the network signal quality is erratic and comparable to other areas of Sekondi-Takoradi, and is not considered an area of concern.

Tanzania: Dar es Salaam settlement reports

Author: Manja Hoppe Andreasen

Settlements studied in Dar es Salaam

Settlement	History	Location	Income-level	Rate of population growth	Remarks
Ununio	Formerly a fishing village under the same name. Sub-division processes started around the end-1990s, catalyzed by a formal surveying process.	App. 20 km north of the city centre along the coast	High income	Rapid population growth. For Kunduchi ward 2002-2012: 12 % per year. Population density remains quite low.	Sub-ward of Kunduchi Ward, Kinondoni Municipality. All land is formally surveyed.
Mzinga	Formerly a rural/peri-urban area with scattered settlements. Informal sub-division processes started around the end-1990s.	App. 15 km south-west of the city centre	Mixed low/middle income	Rapid population growth. For Kitunda ward 2002-2012: 9.3 % per year. Population density remains low.	Sub-ward of Kitunda Ward, Ilala Municipality. Mostly informal land, with a small area of surveyed land called Mwanagati.
Br. Mwinyi	Formerly a rural/peri-urban area with scattered settlements. Informal sub-division processes started in the 1980s.	App. 8 km. south-west of the city centre	Low income	Rapid population growth. For Kilakala ward 2002-2012: app. 6.2 % per year. Population density in 2012 was very high.	Sub-ward of Kilakala Ward, Temeke Municipality All land is informal.
Mjimwema	Formerly a fishing village under the same name. Informal sub-division processes started around the early-2000s.	App. 8 km south of the city centre on Kigamboni peninsula	Mixed low/middle income	Rapid population growth. For Mjimwema ward 2002-2012: 11.9 % per year. Population density remains very low.	Sub-ward of Mjimwema Ward, Temeke Municipality. Mostly informal land, with a small area of surveyed land called Kisota.
Maji Matitu B	Formerly part of a rural/peri-urban village known as Maji Matitu. Informal sub-division processes started around early-2000s.	App. 13 km south of the city centre	Low income	Rapid population growth. For Charambe ward 2002-2012: 10.9 %. Current population density is medium.	Sub-ward of Charambe Ward, Temeke Municipality. All land is informal.

Ununio, Dar es Salaam

1. Introduction/Background

Ununio is located app. 20 km. north of the city centre along the coast. Administratively Ununio is a sub-ward under Kunduchi ward in Kinondoni municipality. According to census data Kunduchi ward has experienced very rapid population growth, 12 % per year on average from 2002-2012. As a result average population density has increased from 901 people/sq.km. in 2002 to 2810 in 2012, though population density remains fairly low as compared to other peripheral wards of Dar es Salaam. As Ununio is located in the most northern parts of Kunduchi ward furthest away from the city centre, it is likely that this area was much less developed in 2002 than the sub-wards located closer to the centre. It is also possible that the current population density is lower than the ward data suggests. According to chairman's office the total population of Ununio sub-ward has increased from 2223 residents in 2002 to an estimated 4300 in 2012, resulting in an average annual population growth rate of 6.8 %. Unfortunately the office did not have an estimate of the size of the territory. Therefore it is not possible to calculate population density accurately. All land in Ununio is formally surveyed.

When was this neighborhood established and how?

Ununio was formerly a fishing village, with a core of village settlement and homesteads located along the coast surrounded by agricultural fields and bush. Ununio started developing into an urban residential area from around the end-1990s, where many newcomers began buying land and developing houses in the area. This process was catalyzed and facilitated by formal surveying processes undertaken by the Ministry of Land, Housing and Human Settlement Development as well as Kinondoni Municipality. At first the surrounding fields of the villagers were surveyed as a low-density residential area. Plots were allocated to new owners through the formal land administration system during the years 1995-2004. The indigenous landholders, who held the land under customary tenure before the survey, had their fields expropriated as part of the surveying process. Some of the indigenous landowners were compensated in the form of allocation of one or more surveyed plots, though many complained about irregularities and corruption in terms of assignment of compensation plots. Many indigenous later sold all or some of their allocated plots to newcomers. In 2004 the area of the old village settlement was also surveyed. Today all land in Ununio is formally surveyed.

How has the built environment changed over time?

When asked how the area looked like 15 years ago, long-term residents describe a core of village settlement along the coast surrounded by bush and agricultural fields with coconut, cashew and cassava trees. Houses were very few, located with some distance between them and often built from "local" or "traditional" materials. *"Most of our houses by that time were built by tree poles and coconut leaves as the roofing materials, but now we have a lot of block houses with iron sheets on top as the roofing materials. There is electricity now. We have piped water. There is a health center near our place. So now we can say that we have experienced much development compared to our elders."* (indigenous and focus group participant Ununio) Many newcomers describe the land they bought 10-15 years ago as "complete bush", "very rough", "wild nature" or "mashamba" (farm land). Today there is still a small core of village-like settlement along the coast, while some of the former field

areas have been developed into a low-density residential area dotted with large modern villas. The surveying processes have ensured that plot sizes are fairly uniform, with a clear layout of plots and access roads to all plots. The interior access roads of Ununio are generally well-organised and in a good condition, though they are not tarmacked. The surveying process has ensured broad roads accessible to cars. In the old village settlement the layout of plots is a bit messier as compared to the former field areas, probably because the old village area was “regularized”, rather than planned from scratch. Larger plots of land along the coast remain undeveloped. North of the old village settlement are larger undeveloped coastal plots. One is owned by PPF (Public Workers’ Pension Fund), while another is rumored to be owned by Chinese investors. Very close to the village settlement is also a large fenced beach plot of undeveloped land rumored to be owned by a high-ranking politician. South of the village settlement is a large plot of land with a handful of half-built modern villas known as the Bahari Beach Project. The area is owned by a group of investors, with a Somali lead investor. They stopped the construction process some years ago, apparently because they ran into liquidity problems.

How do people access land in this neighborhood?

Most of the current landowners either bought their land from the previous owner or accessed land through the formal land allocation system. Indigenous landowners were given surveyed plots as compensation for the customary land they lost in the surveying process. Some of the newcomers also accessed land through the formal allocation process, where they applied the Ministry of Land, Housing and Human Settlement Development or Kinondoni Municipal Council and paid the price directly to the authority in question. The plots were often also traded vigorously after the initial allocation. Some plots had shifted ownership several times. Many newcomers explained they bought their land from those, who had gotten the plots allocated through the formal allocation process, particularly the indigenous owners. Some newcomers told they were actually advised to do so by authorities, who recognized that only very few people would be able to access land through the formal allocation process, as demand often exceeds supply considerably. Relations seem to matter as much in accessing surveyed land as un-surveyed land. Some current landowners heard about the availability of land through official channels, but the majority actually heard through relatives, friends and colleagues. At the time of fieldwork there were relatively few indigenous landowners left as compared to earlier. The vast majority had been bought out by newcomers. Some may have felt forced to sell due to regulations requiring owners of surveyed plots to erect a house within 3 years’ time. Some may have already had a house in the former village settlement and opted to sell the plots they were allocated in their former field areas. Some have definitely been tempted by the prospect of large cash gains, as the value of the land had increased dramatically as a result of the surveying process. Generally land prices in Ununio are very high. The first of the newcomers were able to buy a plot for less than 2 million shillings in the end-1990s. Most of the newcomers who bought land in the early-2000s had to pay more than that, and current prices are rumored to be above 100 million shillings. Land prices are high because of the surveyed nature of the land combined with a prime location near the beach and north of the city centre, a direction generally fashioned by wealthier segments of the population.

2. Housing/Services

What are the main housing types in this neighbourhood (e.g. rental/home owners)? What condition are they in?

In the former field areas, the houses are predominantly very large modern villas, often in two-storeys, made in bricks and tiles for roofing. Plots are fenced with large gates and signs for various private security companies. Houses are well-maintained, often painted in bright colours and surrounded by well-kept ornamental gardens. Plots are large and there is generally only one house per plot. Houses are predominantly single-household, owner-occupier houses, and very few have any tenants on their compounds. Most residents are homeowners or parts of owners' households. Most plots are developed, though you can find a few undeveloped plots here and there. Some of them have been developed with small modest houses, probably meant for those, who take care of the plots while the owners are not using them. The old village settlement is dominated by small and modest houses in bricks and iron-sheet roofing, particularly in the core of the old village. There are very few traditional huts left. Few of the houses are surrounded by fences, though some have demarcated plot boundaries with natural materials. Many of the houses in the village settlement are also owner-occupier houses. There is not much of a rental market in Ununio. In the old village area some of the indigenous landowners sublet a few rooms in their own houses, but it is far from common in all houses. Most of the houses in the old village settlement are owned by remaining indigenous landowners, while the few tenants are newcomers with low incomes. Recently high-income newcomers have also bought land and built large villas very near to the old village settlement giving the area a very mixed character. Plots are generally smaller than in the former field areas, though. Along the Ununio road and in the old village area land use is often mixed commercial-residential with various small shops, bars or workshops.

How do residents in this neighborhood access water?

In Ununio residents are able to connect themselves to the public water supply, Dar es Salaam Water and Sewerage Corporation (DAWASCO). The DAWASCO main pipeline was drawn to Ununio in 2003. Since then most of the high-income newcomers have connected to DAWASCO-water in their house. The residents connected to DAWASCO were generally quite satisfied with the DAWASCO-services as it was considered more reliable in Ununio as compared to more central areas, probably because of the relative proximity to the water plant in Bagamoyo. In the old village area most of the residents have not been able to afford a DAWASCO connection. The majority relied on a combination of groundwater from shallow wells and buying buckets of water from neighbours with a DAWASCO-connection. *"Most of the people up here prefer the Dawasco water services now. The well water is now used only for washing clothes and cleaning kitchen utensils"* (focus group participant Ununio)

How do residents in this neighborhood access electricity?

Ununio is covered by the electricity network. Electricity started spreading into the area in the first half of the 2000s, largely corresponding with the time that the first of the newcomers began shifting their residence to the area. The electricity network was primarily extended as a result of the efforts of individual residents. Many applied Tanzania Electricity Supply Company (TANESCO) and financed extension together with smaller groups of neighbours. Today virtually all the high-income newcomers have connected their house to electricity. In the old village settlement the electricity network is present, but not all residents have connected themselves. They often explain that they cannot afford to pay for

the connection, or that it is not an economic priority at the moment. Some have waited because they are in the process of constructing a house and expect to connect to electricity later, when the house is finished. Some complain about the costs and hassle of connecting to electricity. *“To access electricity is somehow difficult. You are going to the office and you will be required to fill out the forms, which is accompanied by some kind of payments. From there you are supposed to get the connection permit, which are also having some payments. And sometimes someone may be required to pay extra money so as to fasten the service connection. If you are living very far from the electricity line then you will be required to pay for the electricity poles. So sometimes the easiness to get the electricity connection depends much on the financial ability of the user, as someone can process the electricity for even three days in presence of an extra payment.”* (focus group participant Ununio)

How do residents in this neighborhood access toilet/sanitation?

There is no public sanitation network in the area. Residents rely on on-site sanitation solutions.

Which service needs improving the most? What improvements are needed? Are there any services this neighbourhood needs but does not have at the moment?

Residents considered that improvements are needed in health and education services, which are considered under-supplied and of poor quality. Many of the high-income newcomers used private schools, often in the central parts of the city, instead of the local public school. Residents also considered that the existing road connection to Basihaya could use improvement, as it is not easily passable during the rainy season. Residents relying on public transport also consider that the bus services could be improved. Busses are too few and often crowded, and they do not start servicing until 7 AM in the morning. Many residents could need bus services earlier than that.

Are people moving to/from the neighbourhood because the services are good/poor?

Provision of services was not part of the settlement considerations for the first of the newcomers, simply because they bought land that was largely un-serviced. While they generally did not consider services at the time of land purchase, they often had expectations that services would develop later. Many also delayed shifting their residence until they had been able to connect their house to electricity and water. The development of services has fuelled population growth, attracting more high-income newcomers, often very affluent people who can afford to have a preference for serviced land. The residents, who bought land within the last 5-7 years, specifically stated that the provision of services like water and electricity was an important part of their settlement considerations. Improvement of services, particularly public transport, has also attracted some low-income newcomers, primarily tenants.

3. Livelihood-Mobility

What type of person lives in this neighborhood? Has this changed over time? Where are people coming from/moving to? Why?

The population has changed from a small, primarily indigenous, population to a larger and more heterogeneous and mixed population. The term “indigenous” is used to refer broadly to people of the Zaramo tribe, which is native to the region of Dar es Salaam and the surrounding coastal region. Sometimes it means people who were born and raised in Ununio, sometimes Zaramo people from other parts of the region, or sometimes simply long-term residents of the former village, who are not necessarily all of Zaramo origin. Generally indigenous are described as people who owned larger pieces of land at the time surveying started. Before the newcomers arrived indigenous describe that they would “live like a family” and generally be related in one way or another to most of the neighbouring households. Today population is dominated by “newcomers”, who are to a large extent not indigenous to Dar es Salaam region. The newcomers in Ununio are predominantly high-income urban residents shifting from other parts of the city, often more central areas. Many of the former indigenous landowners have shifted out of the area, primarily further north towards Boko and Bunju areas. *“For us, most of the newcomers are the high-income earners and they are mostly coming from town to buy the land up here. So it is very rare to find someone coming from Bunju or Mbweni to come and buy the land up here, rather for us who can have the ability to go to Bunju to buy the plots up there”* (indigenous and focus group participant Ununio)

How do people living in this neighborhood make their money? Has this changed over time? How and why?

Most of the newcomers are high-income residents with formal employment in government or private companies. Some are also company owners. Often they are professionals with long educations, such as engineers, doctors and accountants. Many are high-ranking government officials. The vast majority work in the central parts of the city. As Ununio used to be a fishing village, most indigenous villagers used to be engaged in fishing and agriculture, though not necessarily exclusively. There are also tales of long-term links to the urban economy among indigenous residents, and some have lived and worked in central parts of Dar es Salaam for longer periods of their lives. Fishing is still part of livelihood strategies locally, as most of the remaining indigenous residents are still engaged in fishing. Most fishermen sell their catch on the local Ununio fish market. No one is engaged in cultivation anymore, though, as the fields have been converted into residential areas. There are also newcomers who are low-income earners. Some of them are engaged in fishing, primarily people from other coastal areas and Zanzibar. Others are engaged in the local service sector and work as house servants, caretakers or drivers. Some are involved in small-scale trading or business locally and run small shops, restaurants or workshops.

How does service availability affect income-generating activities in this neighborhood?

The improvements in road infrastructure have supported the local fishing trade, particularly Ununio fish market. Among fishermen Ununio is considered an attractive area because the local fish market makes it easy for fishermen to sell their catch locally at a good price. If unsatisfied with the prices locally, fishermen also have the option of transporting their fish to the central fish market at Kivukoni. The presence of electricity along with improvement of transport services have facilitated small-scale business activities such as small shops,

restaurants and bars along the road in Ununio. These activities provide livelihood opportunities for many low-income residents.

How does the urban transport available to residents affect their mobility within but also outside of the city (e.g. travel to rural areas)?

Ununio is accessible from the north-bound main road, New Bagamoyo Road, connecting Dar es Salaam to Bagamoyo in the coastal region. The outlet road, Ununio Road, connects Ununio with New Bagamoyo Road at the Kunduchi junction. From New Bagamoyo Road there is access to the central parts of the city as well as to Bagamoyo. Transport to the central parts of the city can take anything from 1-3 hours each way because of traffic conditions and road construction work along New Bagamoyo Road. When the roads are free on Sundays it can take as little as 30 minutes. To be able to reach one of other main roads connecting to other regions outside of Dar es Salaam, residents have to pass through the city centre or the ring road of Nelson Mandela Road. Ununio Road used to be a very rough road, but it was upgraded to a gravel road in 2007 and to a tarmac road quite recently in 2013. This road improvement has dramatically increased accessibility in all-weather conditions and reduced travel times to the city. Before Ununio Road was upgraded residents had to connect to New Bagamoyo Road at Tegeta or Boko via small informal roughroads.

Until recently Ununio was not serviced by public transport. Instead residents without a private vehicle had to walk, catch a ride or take a motorcycle taxi to the New Bagamoyo Road to access public transport. In 2009 a new daladala route started servicing the area going Mwenge-Ununio. Initially Ununio residents experienced that busses would not continue all the way to Ununio. This has improved since the tarmacking of Ununio Road. From Mwenge residents are able to catch other busses to the city centre as well as various other parts of the city

How does the urban transport available to residents affect their income generating activities?

Transport is very important for the high-income newcomers, as many work outside the area, particularly in the central parts of the city. While far from everybody commutes on a daily basis, most of the households have at least one breadwinner working in the city. Most of the high-income newcomers rely on private cars as their primary mean of transportation. The low-income residents are more reliant on public transport, but generally consider transport less important, as many of them work locally. Transport is not so important for the fishing trade, as most of the fishermen are able to sell their catch on the local Ununio fish market.

4. Conclusion

What are the most pressing needs of this neighbourhood? If possible rank from 1 to 5 the priority for improvement of the following public services: water, sanitation, electricity, local transport, mobile phone signal

Residents considered that improvements are most needed in health and education services. Residents are generally satisfied with the public water supply from DAWASCO. Residents are also generally content that they are able to connect to electricity, though low-income residents often complain about the prices of connections and consumption. Ununio is subject to the same instabilities in the power supply as the rest of Dar es Salaam. Residents are generally content with the quality of the roads, both the inner access roads and the Ununio Road, though some do consider that the existing road connection to Basihaya could be improved. Low-income residents relying on public transport also consider that the bus services could be improved. Mobile phone signal was considered sufficient by residents.

What do residents think this neighbourhood will look like in the future?

Residents generally expect Ununio to remain an attractive high-income, low-density residential area. Most residents expect that all the remaining indigenous will be bought out by other newcomers in the coming years. *“Yah, we are going to be removed. Not directly since we have got also the right to live here. The thing is, our places will indirectly be taken by us being given large amounts of money by the high-income people for selling the property. So I hope most of us will leave the area willingly and with a smile.”* (indigenous and focus group participant). Further subdivision and densification of the settlement is not expected. The high-income newcomers are generally not interested in subdividing their land. Rather they are interested in buying neighbouring plots and joining them with their own.

Two-storey house on fenced compound common for the newly developed land in block A



Newly built brick house in the old village area of block D



Interior access road in the newly developed area of block A illustrating the relatively good accessibility of the area



Mzinga, Dar es Salaam

1. Introduction/Background

Mzinga is located app. 15 km south-west of the city centre. Administratively Mzinga is a sub-ward in Kitunda ward of Ilala Municipality. According to census data Kitunda ward has experienced rapid population growth, 9.3 % per year on average from 2002-2012. As a result average population density has increased from 1366 people/sq.km. in 2002 to 3329 in 2012. As Mzinga is located in the interior part of Kitunda ward furthest away from the main road, it is likely that this area was much less developed in 2002 than the sub-wards located closer to the main road, which were already consolidated settlements at the time. It is also possible that the current population density is lower than the ward data suggests. According to the ward office of Kitunda Mzinga sub-ward had a total population of 4082 in 2002 and an estimated 20,000 residents at the time of fieldwork in 2014, resulting in an average annual population growth rate of 14 % from 2002-2014. Unfortunately the office did not have an estimate of the size of the territory. Therefore it is not possible to calculate population density accurately. Mzinga sub-ward is a very large sub-ward consisting of three quite different areas; Nyangasa, Mwanagati and Magore. Nyangasa area is the least interior and most accessible area located along the outlet road of Kitunda Road. Magore area is located south of Nyangasa, furthest away from Kitunda Road. Mwanagati area is located further south-east along the Kitunda Road with a low valley separating Nyangasa and Mwanagati area. While Nyangasa and Magore are completely informal areas, land in Mwanagati is formally surveyed. Fieldwork was primarily carried out in Nyangasa and Mwanagati areas.

When was this neighborhood established and how?

Mzinga was formerly a sparsely populated peri-urban area occupied primarily by indigenous Zaramo people, who held the land under customary tenure. During the 1980s and 1990s people of different origins settled in the area, particularly Kuria people, who settled to engage in agriculture and commercial poultry-keeping. *“Before this was like farmland. So among the people who came to warm the place are these Kuria people, although these areas were predominantly occupied by the Zaramo people. And due to the tendencies of selling the plots, the indigenous ended up mixing with Kurians and other people.”* (focus group participant in Mzinga). Nyangasa area in Mzinga started developing into an urban residential area from around the late 1990s, where a second wave of newcomers began buying land in the area and develop residential houses. As all land in Nyangasa area is informal, the developments were facilitated by informal subdivision processes, where former landowners sold their land to newcomers, often in smaller pieces. Over a course of few years the rumours of available land spread across town, and more and more potential buyers were attracted. While many newcomers bought land around the millennium, many did not shift their residence at first. Rapid population growth therefore happened somewhat delayed from around 2003-04. The surveyed Mwanagati area started developing into an urban residential area somewhat later from the early 2000s and onwards. Here the process was catalyzed and facilitated by formal surveying processes undertaken by the Ministry of Land, Housing and Human Settlement Development as part of the 20,000 plots project. In Mwanagati newcomers began buying land in the early and mid-2000s after the surveying process. In the most interior Magore area the developments has only begun recently. Currently Magore area is an area where many newcomers are buying land, though many have not shifted their residence yet.

How has the built environment changed over time?

When asked how the area looked like 15 years ago, long-term residents describe farmland, forest and bush interspersed with scattered settlement. Houses were very few, far from each other and often built from “local” or “traditional” materials like poles, stones and mud with palm leaves or grasses for roofing material. Many newcomers describe the land they bought 10-15 years ago as “complete bush”, “very rough”, “wild nature” or “mashamba” (farm land). They also describe abundant vegetation and complete darkness as soon as the sun went down. Furthermore, as the area is intersected by various natural springs, there were massive problems with water-logging in the rainy season. Today both Nyangasa and Mwanagati areas have developed into low-medium density urban residential areas with numerous modern houses in modern materials. The area still has a green quality to it, but there are no agricultural fields left, except in the most interior Magore area. In Nyangasa the plot layout is somewhat messy and the inner access roads are organic with relatively few and narrow roads. Not all roads are suited for cars. As it is an informal area residents have settled largely undisturbed by planners, and landowners have subdivided as they please. This has resulted in varying plot sizes, haphazard layout of plots and lack of access roads to all plots. Mwanagati area is more spacious and less densely developed than Nyangasa area. The surveying process has ensured that plot sizes are fairly uniform, with a clear layout of plots and access roads to all plots.

How do people access land in this neighborhood?

In the informal parts of Mzinga most current landowners accessed land through purchase from the previous owner. Some of the current landowners bought directly from an indigenous owner, but most plots had been traded 2, 3 or 4 times since an indigenous owner sold the land. Land is traded on an informal market that relies on informal connections between sellers and buyers, sometimes facilitated by informal land brokers, but more often through personal relations. Relations are generally important in accessing informal land. Many describe how they “heard rumours” of land being sold in this area from friends or relatives. Some residents knew someone already living in the area that helped facilitate a purchase. Informal sales agreements are commonly formalized through written contracts, witnesses or by seeking approval from local leaders, typically the chairman of the sub-ward. In Nyangasa many newcomers were able to get a plot for less than 500,000 TSH before 2003. Only few paid up to a million, often for larger pieces of land. Later prices started reaching several millions, and today a plot might easily cost more than 10 million TSH. Prices increase according to how close land is to the outlet road of Kitunda Road. Prices tend to fall towards Magore area. In the surveyed Mwanagati area most of the newcomers accessed land through the formal allocation process, where they applied the Ministry of Land, Housing and Human Settlement Development and paid the price directly to the Ministry. Surveyed plots are often also traded after allocation. Some plots had shifted ownership once or twice since initial allocation. Generally land prices in Mwanagati are much high than in surrounding un-surveyed parts of Mzinga. Current prices are up around 20-30 million TSH for a plot, while the first newcomers typically paid 1 or 2 million TSH for their plots.

2. Housing/Services

What are the main housing types in this neighbourhood (e.g. rental/home owners)? What condition are they in?

The informal parts of Mzinga are dominated by single-story, single-family houses built in modern materials like bricks and iron-sheet roofing. House sizes vary a lot, from small and very basic houses to large, colourful villas. Few houses are fenced off or have demarcated plot boundaries, though there are larger fenced houses here and there. Plots are often densely developed, and most residents seem to prioritize housing and commercial activities rather than free-space and gardens. There are few empty plots, but houses are often in very different stages of completion. Most houses are owner-occupier houses, but some of the landowners have developed rooms for tenants on their compounds. Rental arrangements are often quite informal, where landowners earn extra income by subletting rooms in the main house, where they are living themselves. Some also construct one or more separate houses for tenants on their compounds. Along the roads land use is often mixed commercial-residential with various small shops, bars or workshops. In the surveyed Mwanagati area the houses are predominantly larger modern single-family houses in bricks and iron-sheet roofing. All plots are fenced with large gates. Houses are well-maintained and often painted in bright colours. Plots are large and there is generally only one house per plot. Building densities are visibly lower than in surrounding informal areas. Houses are predominantly single-household, owner-occupier houses, and very few have any tenants on their compounds. Most residents are homeowners or parts of owners' households. Many plots are still undeveloped. Some of them have been developed with small modest houses meant for those, who take care of the plots while the owners are not using them.

How do residents in this neighborhood access water?

In Mzinga residents rely entirely on local groundwater for their water supply. There is no public water supply from Dar es Salaam Water and Sewerage Corporation (DAWASCO). Instead residents take water from a mixture of private and communal deep wells. Before deep wells were developed, residents relied on shallow wells and surface water from natural springs. Many residents drilled deep wells in relation to getting connected to electricity, as electricity is needed for the electric pumps. Communal wells were drilled with the help of the municipality and foreign donors and are today managed communally by elected residents. Many residents have connected themselves to private or communal wells with pipeline connections to their own house, often paying on a monthly basis according to consumption. A large group of residents also rely on buying buckets of water from private or communal wells. Residents in Mzinga are generally content with their supply of water and consider their groundwater safe and the supply more reliable than DAWASCO's services. Residents particularly highlight the quality of their local groundwater as very tasty and fresh, to an extent where they feel very comfortable drinking it *"The level of the water services we have this time, it is satisfactory, to the extent that no one is in need for Dawasco water unless the underground water goes dry. And we believe the underground water is much safer than the Dawasco water. And even the ground water has a better taste than the Dawasco water such that you will not even like the bottle water from the shop."* (focus group participant in Mzinga)

How do residents in this neighborhood access electricity?

Most of Mzinga is covered by the electricity network. Electricity started spreading into Nyangasa area in the first half of the 2000s, largely corresponding with the time that the first of the newcomers began shifting their residence to the area in larger numbers. Before that there was no electricity in the area. In Nyangasa area some of the first newcomers were able to draw electricity from the nearby Banana area close to the Airport Road. From there residents were able to extend further. In the surveyed Mwanagati area electricity started spreading somewhat later in the second half of the 2000s, again largely corresponding to the time when many of the newcomers shifted their residence into the area. In Mwanagati the first newcomers were able to draw electricity from Mzinga Secondary School. In 2007/09 the Tanzania Electricity Supply Company (TANESCO) drew a main line through Mzinga area, and many residents connected themselves in relation to that extension. In Mwanagati area there are still some of the interior parts, though, where the network has not reached yet. Though the network is present in most of Nyangasa and Mwanagati, there is still a substantial group of residents, who have not connected to electricity. They often explain that they cannot afford to pay for the connection, or that it is not an economic priority at the moment. Some have waited because they are in the process of constructing a house and expect to connect to electricity later, when the house is finished.

How do residents in this neighborhood access toilet/sanitation?

There is no public sanitation network in the area. Residents rely on on-site sanitation solutions.

Which service needs improving the most? What improvements are needed? Are there any services this neighbourhood needs but does not have at the moment?

Residents considered that improvements are needed in health and education services, which are considered under-supplied and of poor quality. There is currently no primary school in the Mzinga area, so residents have to send their children to the crowded school of the nearby sub-ward of Kitunda Kati. For many children this results in quite long walks to schools every day. The transport infrastructure is another area where improvements are badly needed. The bad condition of the roads is a very common complaint among residents when evaluating their area. Interior parts of the outlet road of Kitunda Road as well as all the inner access roads of Mzinga area are very rough. None of the inner roads are tarmacked. Roads are often full of potholes and lack proper drainage systems. They tend to be dusty in the dry season and muddy in the rainy season. There are severe problems with water-logging on the roads. The back roads connecting Mzinga to Nelson Mandela Road are also very rough and virtually impassable during the rainy season. Residents relying on public transport also consider that the bus services needs improvement. While the bus services along Airport Road are quite reliant, the bus services in the interior parts of Mzinga are insufficient. Residents complain about too few and too small busses servicing too many people. Some also complain about lack of busses in the odd hours very early in the morning or late in the evening. Often residents are forced to spend extra money on motorcycle taxis, when busses are not available.

Are people moving to/from the neighbourhood because the services are good/poor?

Provision of services was not part of the settlement considerations for the first of the newcomers, simply because they bought land that was largely un-serviced. Many of the first newcomers lived in the area for many years without services. While they generally did not consider services at the time of land purchase, they often had expectationsthat services

would develop later. As services developed along the way it fuelled further population growth, attracting more newcomers, often more affluent people who could afford to have a preference for serviced land. Improvement of services, particularly public transport, has also attracted many low-income residents, primarily tenants.

3. Livelihood-Mobility

What type of person lives in this neighborhood? Has this changed over time? Where are people coming from/moving to? Why?

The population has changed from a small primarily indigenous population to a larger and more heterogeneous and mixed population. The term “indigenous” is used to refer broadly to people of the Zaramo tribe, which is native to the region of Dar es Salaam and the surrounding coastal region. Sometimes it means people who were born and raised in Mzinga, sometimes Zaramo people from other parts of the region who are long-term residents of the area. People of different origins, particularly Kuria people, had also settled in the area during the 1980s and 1990s, so population was already somewhat mixed, when the area started developing into an urban residential area. Today population is dominated by “newcomers”, who are to a large extent not indigenous to Dar es Salaam region. The newcomers in Mzinga are primarily urban residents shifting from other parts of the city, often more central areas. Socially they are a very heterogeneous group, consisting of low-, middle and higher-income people. Low-income residents had a chance to buy land in Mzinga in the beginning of the subdivision processes. Later increasing land prices ensured that only more well-off people were able to buy land in the area. The surveyed nature of the land in Mwanagati area has also attracted higher-income people. Many of the former landowners, indigenous as well as others, have shifted out of the area. Some have shifted towards the more interior Magore area, where there is still cheap land available. Others have shifted further south-west towards areas like Chanika and Msongola. Today there are very few indigenous left in the area.

How do people living in this neighborhood make their money? Has this changed over time? How and why?

Most of the newcomers are urban residents with urban-based incomes. Some have formal employment in government or private companies, particularly among the higher-income residents of Mwanagati area. Many of the residents in Mwanagati area are professionals with long educations, such as doctors, engineers and accountants. Some are also independent company owners. There are also employees in the informal parts of Mzinga, but they tend to be professionals with shorter educations, such as nurses, teachers, low-level administrators and military personnel. Many of the residents are also self-employed in various informal trading and business activities. The vast majority work in the central parts of the city, or if engaged in trading activities they rely on regular exchanges on central markets. Before the newcomers arrived the majority of the population was engaged in agriculture and livestock-keeping, though not necessarily exclusively. There are also tales of long-term links to the urban economy among long-term residents formerly engaged in agriculture. Some have lived and worked in central parts of Dar es Salaam for longer periods of their lives. No one is engaged in cultivation anymore, except in the more interior Magore area. There are still a few residents, who engage in small-scale commercial poultry-keeping on their plots, though.

How does service availability affect income-generating activities in this neighborhood?

Transport infrastructure has made it possible for some residents to run small-scale retail shops, where they supply Mzinga residents with various goods from central markets. It has also made it possible for residents to engage in production of various products, such as vegetables, chickens, eggs and handicraft meant for the urban markets. Furthermore, transport infrastructure and electricity has facilitated the emergence of various local

businesses such as small shops, restaurants and workshops supplying local customers and relying on input from central markets. These activities provide livelihood opportunities for many low-income residents, as well as many housewives supplementing household income with small-scale business and trading activities locally.

How does the urban transport available to residents affect their mobility within but also outside of the city (e.g. travel to rural areas)?

Mzinga is accessible from the southwest-bound main road, Airport Road, connecting Dar es Salaam to Kisarawe in the coastal region. The outlet road Kitunda Road connects Mzinga area with Airport Road at the Banana junction. From Airport Road there is access to the central parts of the city as well as to Kisarawe. Transport to the central parts of the city can take anything from 1-3 hours each way depending on traffic conditions. When the roads are free on Sundays it can take as little as 30 minutes. To be able to reach one of the other main radial roads connecting to other regions outside of Dar es Salaam, residents have to pass through the city centre or the ring road of Nelson Mandela Road. Kitunda road has existed for a long time, but it used to be a small and rough road at the time the first newcomers began buying land in Nyangasa area. *“We had the road for a long time, although by that time it was not as good as the recent one. So later on the road was re-improved to the extent of making most of the area reachable.”* (focus group participant in Mzinga). Until 2000 Kitunda Road was only passable in the dry season, because of severe waterlogging in the rainy season. Around 2000-01 the municipality of Ilala started upgrading Kitunda road, so that cars could enter into the area. In 2006-08 parts of Kitunda Road were tarmacked, starting from the Banana junction on Airport Road. At the time of fieldwork the tarmac ended just before Mzinga sub-ward started. While the tarmacked part of Kitunda Road is accessible in all-weather conditions, the un-tarmacked parts are highly subjected to waterlogging in the rainy season. Kitunda road is still under municipal development, and it is planned that they will tarmac another stretch of the road each year. From Kitunda Road a few smaller access roads connect to the interior parts of the area, though they are quite rough and sandy. Kitunda Road continues through Mzinga area as a rough road and connects to Nelson Mandela Road through the central areas of Buza, Makangarawe and Tandika. Some residents find this “back road” much faster, though the quality is very poor, esp. in the rainy season.

Public transport has only become available fairly recently. Small daladalas started servicing the area from Banana on Airport Road from around 2006 after Kitunda Road was partly tarmacked. Before that residents had to walk, catch a ride or take motorcycle taxis to the Banana junction at Airport Road. At first the daladalas only serviced the tarmacked parts of Kitunda Road, gradually extending the services further inwards as the tarmac was expanded. Today daladalas also service the un-tarmacked parts of Kitunda Road inside Mzinga area. In 2010 some busses started continuing all the way to Mwanagati, while other busses went into the more interior parts of Nyangasa towards Magore. From Airport Road many large busses connect to central parts of the city, many of them ending in Kariakoo, Mnazi Mmoja or Stesheni, where busses are available to other parts of the city.

How does the urban transport available to residents affect their income generating activities?

Transport is very important for the newcomers, as many work outside the area or run small-scale businesses relying on regular exchanges with markets in the central parts of the city. While far from everybody commutes on a daily basis, most of the households have at least one breadwinner working in the city or travelling to central markets regularly. Some of the higher-income residents rely on private cars as their primary mean of transportation, while the majority of residents rely on public transport.

4. Conclusion

What are the most pressing needs of this neighbourhood? If possible rank from 1 to 5 the priority for improvement of the following public services: water, sanitation, electricity, local transport, mobile phone signal

Residents considered that improvements are most needed in health and education services as well as in road infrastructure and public transport. Residents do not have access to public water supply, but are generally quite satisfied with their individual and communal solutions relying on ground water. Residents are also generally content that they are able to connect to electricity, though low-income residents often complain about the prices of connections and consumption. Furthermore Mzinga is subject to the same instabilities in the power supply as the rest of Dar es Salaam. As the residents of Mzinga rely on electric pumps for their water supply this adds and extra inconvenience to the regular powercuts.

What do residents think this neighbourhood will look like in the future?

Residents expect that the area will continue to be an attractive residential area. The improvements in services and transport infrastructure have already attracted more well-off residents, and may continue to do so in the future. Some of the current low-income landowners expect they may be bought out by higher-income newcomers in the future. A rental market has emerged in the un-surveyed parts of Mzinga, but as of yet it is not a very vibrant and busy market, primarily because of the long transport times to town. If the area develops into an attractive rental area further densification may be expected.

Single-family houses in the informal part of Mzinga



House under construction in Mzinga, where owners have already moved in



Informal pipeline connection from private borehole to a neighbour's house



Br. Mwinyi, Dar es Salaam

1. Introduction/Background

Br. Mwinyi is located app. 8 km. south-west of the city centre. Administratively Br. Mwinyi is a sub-ward under Kilakala ward in Temeke municipality. It is an older and more consolidated residential area, which has undergone significant densification in the most recent inter-census period. According to census data Kilakala ward has experienced quite rapid population growth, app. 6 % per year on average in the 2002-2012 period. As rapid growth has happened in an already consolidated and densely populated area, it has translated into significant increases in average population density, from an estimated 15,971 people/sq.km. in 2002 to 29,104 in 2012. The current population density is among the highest in Dar es Salaam. As Kilakala ward is quite small in terms of territory and consists of only three small and rather similar sub-wards, it is likely that the ward data is a good indication of population growth and densities in Br. Mwinyi sub-ward. All land in Br. Mwinyi is informal, though the area has been regularized post-settlement in 2002.

When was this neighborhood established and how?

Br. Mwinyi was formerly a sparsely populated peri-urban area occupied by primarily coastal people of the tribes Makonde, Ndengereko and Zaramo. Br. Mwinyi started developing into an urban residential area from around 1980, when a group of newcomers started buying land in the area and developing houses for settlement. The developments were facilitated by informal subdivision processes, where former landowners sold their land to newcomers, often in smaller pieces. Over a course of few years the rumours of available land spread across town, and more and more potential buyers were attracted. Long-term residents describe how the number of residents in the beginning of the 1980s was still countable and that residents were generally familiar to one another. *"I came here in 1987. By that time the number of the settlers was countable and people were familiar to one another. Back then most of the houses were built by the poles and muds, roofed by thatch, and generally I was met by a mixture of different tribes like Zaramo, Ndengereko and the southern Makonde. All the houses were scattered, unlike now where we are having a lot of houses close to one another."* (long-term resident and focus group participant Br. Mwinyi). During the 1990s population growth speeded up as newcomers arrived in larger numbers. The area developed as an informal area, but the area was regularized in 2002, when the government undertook a survey and regularization process of the area. Landowners in Br. Mwinyi were not given formal title deeds of long duration as in the formally planned areas. Instead they were given "rights of occupancy" for shorter periods of time, typically renewable within 3-5 years' time. Rapid population growth has continued during the 2000s, where the area developed from a medium-density area into a densely populated and very densely developed area. Up until 2005 it is described as an area with fairly low density, good space between the houses and fresh air. Today many residents consider the area has become very congested. Densification was fuelled by further subdivisions by newcomers, who often sold off smaller parts of their land to accommodate children or other relatives or to raise cash in situations of need. Densification was also fuelled by the emergence of a rental market, where landowners erected extra houses on their compounds with rooms for tenants. Today most landowners have rooms for tenants on their properties, and tenants outnumber landowners by many times in their share of the total population. The rental market is quite vibrant and Br. Mwinyi is considered an attractive rental area because of its relative proximity to town and the relative cheapness of rents in Br. Mwinyi as compared to rents in more central areas.

How has the built environment changed over time?

When asked how the area looked like 15 years ago, long-term residents describe farmland and bush with scattered settlement. Houses were very few and often built from “local” or “traditional” materials like poles, stones and mud with palm leaves or grasses for roofing material. Many newcomers describe the land they bought in the 1980s as “complete bush”, “wild nature” or “mashamba” (farm land). They also describe abundant vegetation and wild animals such as monkeys and wild pigs. In the beginning of the 1990’s local houses disappeared from the area as newcomers started building block houses with iron sheets for roofing. By the early 2000s Br. Mwinyi was a consolidated urban residential area, though still with medium population densities and with some space between the houses. The area started congesting in the mid-2000s and today Br. Mwinyi has developed into a high-density residential area with numerous small houses built very close to each other. Virtually all land is developed with housing. There is very little space for gardens, open areas or communal facilities. Houses are built predominantly in modern materials like bricks and iron-sheets. Plot sizes are generally small, the plot layout is very messy and the inner access roads are few and very narrow with only limited access for cars. Neighbouring houses are built very close to each other, and it is difficult to see where one plot ends and where another one begins. As it is an informal area residents have settled largely undisturbed by planners, and landowners have subdivided as they please. This has resulted in a very high density of development, road encroachment and lack of access roads to all plots. There are many signs of unplanned subdivision where gates are cut off from the road or one person’s toilet is located close to another one’s kitchen. Air circulation is poor and there are visible problems with waste management. *“From the beginning, when land was being sold in farm sizes, there was no government planning or control over the processes. That is why people were developing the areas by themselves, without planning or control. So the presence of the few roads, which are now under improvement, was the decision of the people themselves.”* (focus group participant Br. Mwinyi)

How do people access land in this neighborhood?

In Br. Mwinyi most current landowners accessed land through purchase from the previous owner. Some of the current landowners bought directly from an indigenous owner, but most owned plots that had been traded many times since an indigenous owner sold the land. Land is traded on an informal market that relies on informal connections between sellers and buyers, sometimes facilitated by informal land brokers, but more often through personal relations. Relations are generally important in accessing informal land. Many describe how they “heard rumours” of land being sold in this area from friends or relatives. Some residents knew someone already living in the area that helped facilitate a purchase. Informal sales agreements are commonly formalized through written contracts, witnesses or by seeking approval from local leaders, typically the chairman of the sub-ward. Land prices have increased considerably over time. The first of the newcomers could buy a larger plot for 5-10,000 TSH in the early 1980s. In the 2000s a smaller plot could still be purchased for less than 5 million THS, whereas nowadays the prices start around 25 million THS, though plot sizes are very small.

2. Housing/Services

What are the main housing types in this neighbourhood (e.g. rental/home owners)? What condition are they in?

Br. Mwinyi is dominated by single-story, single-family houses as well as commercial houses with rooms for tenants. Most houses are built in modern materials like bricks and iron-sheet roofing. Most of the houses are small and fairly old and worn by weather and time. Few houses are fenced off or have demarcated plot boundaries, though there are a few larger fenced houses here and there. Plots are often densely developed, and most residents prioritize housing and commercial activities rather than free-space and gardens. The single-family houses are generally owner-occupier houses, though most of them also accommodate one or two extra tenant households besides the owner's household. Many of the landowners have also developed commercial houses with rooms for tenants either on their own compounds or on nearby compounds. One tenant house can contain many rooms, often with one family living in each room. Therefore the number of tenants often significantly outnumbers members of the owners' family on a compound. *"Nowadays there are a lot of tenants, as compared to the houseowners. For example, I may have one house and six rooms, therefore there could be one house owner and six tenant families"* (focus group participant Br Mwinyi). As plots are generally small this results in very high plot coverages. Rental arrangements appear somewhat professionalized, where many landowners do not live together with their tenants and use professional brokers to manage their commercial properties. Along the roads land use is often mixed commercial-residential with many business frames for various small shops, bars or workshops.

How do residents in this neighborhood access water?

In Br. Mwinyi residents rely entirely on local groundwater for their water supply. There is no public water supply from Dar es Salaam Water and Sewerage Corporation (DAWASCO). Instead residents take water from a mixture of private and communal deep wells. Before deep wells were developed, residents relied on shallow wells as well as a nearby natural spring called Mzambarauni. Communal wells were drilled with the help of the municipality and foreign donors and are today managed communally by elected residents. The first communal well was created under a project referred to by residents as WaterAid sometime in the end-1990s, though residents disagree a bit about the timing. Some individual residents also started drilling their own private deep wells after the WaterAid well was created. *"So after people realized the availability of water in the area, then one by one they started digging their own private wells, which in turn increased the accessibility of water in the area. So generally in the area, we are not experiencing problems with water now."* (focus group participant Br. Mwinyi). In 2008 two more communal wells were created with the assistance of the World Bank. Those wells were today managed by the community through Tanzania Social Action Fund (TASAF). Today the old WaterAid well is not functioning anymore. Some residents have connected themselves to private or communal wells with pipeline connections to their own house, often paying on a monthly basis according to consumption or at a flat rate according to the household size. The majority of residents rely on buying buckets of water from private or communal wells. The wells are not meeting the demand of the current population, and residents complain about spending much time standing in cues for water. Some of the private wells provide fresh water, while others provide salty water unsuitable for drinking.

How do residents in this neighborhood access electricity?

Br. Mwinyi is covered by the electricity network. Electricity started spreading into the area in the 1990s. Before that there was no electricity in the area. In 1994 one resident managed to extend the electricity network to his house from the nearby Tandika area. Long-term residents remember this year, because they were able to watch the 1994 World Cup at his house. Other residents were able to extend the network from there. During the 1990s more and more residents extended the electricity network by their own efforts. In 2000 Tanzania Electrical Supply Company (TANESCO) drew a main line through the area. Many residents have connected themselves in relation to that. Though the network is present all-over Br. Mwinyi, there is still a group of residents, who are not connected to electricity. They often explain that they cannot afford to pay for the connection, or that it is not an economic priority at the moment. Some have waited because they are in the process of constructing a house and expect to connect to electricity later, when the house is finished.

How do residents in this neighborhood access toilet/sanitation?

There is no public sanitation network in the area. Residents rely on on-site sanitation solutions. The majority of households use either a pour flush latrine or a pit latrine with a concrete slab. Some had private latrines, but the majority of households used shared latrines. There are sanitation trucks operated by Temeke Municipality engaged in removing faecal sludge, but few residents use these services. The most common latrine emptying practice is to dig a nearby hole and force the faecal waste to flow out of the latrine pit and into this new hole. It is also common practice to empty a latrine during the rainy season, where faecal sludge would be put into the open environment and be washed away with the rain. This is a problematic method as latrine sludge will pass through other peoples living areas.

Which service needs improving the most? What improvements are needed? Are there any services this neighbourhood needs but does not have at the moment?

Residents consider that the transport infrastructure is an area where improvements are badly needed. The bad condition of the roads is a very common complaint among residents when evaluating their area. All the inner access roads of Br. Mwinyi area are very rough, unsuitable for cars and only partly passable in the rainy season. Residents relying on public transport complain that busses are too few, too small and in very poor conditions. Residents also consider that they lack a direct route to the central areas of the city. Residents contribute this to the bad conditions of the roads and consider that if roads were upgraded bus services would also improve. Residents also consider that improvements are needed in health and education services, which are considered under-supplied and of poor quality. There is currently no public primary school within Br. Mwinyi. Instead residents have to send their children to schools in the nearby Kigunga sub-ward. Residents also complain about being asked to make unnecessary contributions to the schools. Waste management is another area where residents consider that improvements are needed. Residents complain that the area is very unclean. Some complain that others dispose of solid waste on the roads, on unoccupied plots or even on others' plots in the cover of the night. There is currently a community group working with waste collection, but they are far from meeting demand. They complain about the bad condition of the roads and the low accessibility making it very difficult to collect waste efficiently. Water provision is another area where residents would like improvements. The two functioning communal wells are not meeting the demand of the population, and residents complain about spending much time standing in cues for water. Local leaders worry that relying on local groundwater is adensely

developed area with on-site sanitation poses a risk of contamination of the groundwater and related disease outbreaks.

Are people moving to/from the neighbourhood because the services are good/poor?

Provision of services was not part of the settlement considerations for the first of the newcomers, simply because they bought land that was largely un-serviced. Many of the first newcomers lived in the area for many years without services. As services developed along the way it has made the area more attractive and fuelled population growth. More newcomers have been attracted to settle in the area. The development of services has also facilitated the emergence of a vibrant rental market and contributed to making the area an attractive area for tenants, in combination with the relative proximity to the city centre.

3. Livelihood-Mobility

What type of person lives in this neighborhood? Has this changed over time? Where are people coming from/moving to? Why?

The population has changed from a small population of primarily coastal people of the tribes Makonde, Ndengereko and Zaramo, to a much larger and more heterogeneous population. The Zaramo people are considered “indigenous” to the region of Dar es Salaam, while Makonde and Ndengereko originate from coastal areas further away. Therefore the population was already somewhat mixed, when the area started developing into an urban residential area. Most of the coastal people, who inhabited the area at the time subdivision began, have shifted out of the area. One indigenous resident explained that the others had “put their desires in front of themselves” and are now back in the villages engaging in cultivation. Many have shifted further south-west to areas like Chanika, Majohe, Kitunda and Kivule. Today the population is dominated by newcomers, who are to a large extent not indigenous to Dar es Salaam region. Socially they are a heterogeneous group, though primarily low and middle-income people. Residents agree that there are very few high-income residents in Br. Mwinyi. Currently some of the middle-income people are shifting out of Br. Mwinyi, because they consider the area has become too congested. Many are shifting towards more peripheral parts of Dar es Salaam, where they can acquire larger plots of land and gain more living space for the family.

How do people living in this neighborhood make their money? Has this changed over time? How and why?

All of the current residents are urban residents with urban-based incomes. Some of the residents have formal employment in government or private companies. Some of the employees are professionals with shorter or longer educations, while others are low-skilled manual labourers of various kinds. Among the employees many work for the Tanzania-Zambia Railway Authority (TAZARA), which have its’ headquarter located in the nearby junction of Nelson Mandela Road and Airport Road. Many residents are also self-employed with various informal trading and business activities. Most work in the central parts of the city, or if engaged in trading activities, they rely on regular exchanges on central markets. There is also a vibrant business life locally with many small shops, restaurants and workshops providing livelihood opportunities for some of the residents. Before the newcomers arrived agriculture and livestock-keeping were dominant livelihood strategies, though not necessarily exclusively. There are also tales of long-term links to urban economies among long-term residents formerly engaged in agriculture. At the time of fieldwork no one were engaged in cultivation anymore.

How does service availability affect income-generating activities in this neighborhood?

Transport infrastructure has made it possible for some residents to run small-scale retail shops, where they supply Br. Mwinyi residents with various goods from central markets. It has also made it possible for residents to engage in production of various products, such as handicraft and batik meant for the urban markets. Furthermore, transport infrastructure and electricity has facilitated the emergence of various local businesses such as small shops, restaurants and workshops supplying local customers and relying on input from central markets. These activities provide livelihood opportunities for many low-income residents, as well as many housewives supplementing household income with small-scale business and trading activities locally.

How does the urban transport available to residents affect their mobility within but also outside of the city (e.g. travel to rural areas)?

Br. Mwinyi is accessible mainly from the large ring road, Nelson Mandela Road, via a number of smaller outlet roads going through Tandika. Br. Mwinyi is also accessible from the southwest-bound main road, Airport Road, through a smaller back road going through Yombo Vituka. To be able to reach one of the other main radial roads connecting to other regions outside of Dar es Salaam residents have to pass through the city centre or the ring road of Nelson Mandela Road. Despite being fairly close to the centre, transport to the central parts of the city can take anything from 1-2 hours each way because of traffic, especially in the TAZARA junction between Nelson Mandela Road and Airport Road. When the roads are free on Sundays it can take as little as 20-30 minutes. The condition of the roads is a very common complaint among residents. The outlet roads are tarmacked up until the point where they reach Br. Mwinyi. A small and ill-maintained bridge connects the tarmac road with Br. Mwinyi over a small and dirty river. All the inner access roads are very rough, full of potholes and lack proper drainage systems. While the tarmacked outlet roads are accessible in all-weather conditions, the un-tarmacked roads inside Br. Mwinyi are only partly passable in the rainy season. The back road connecting to Airport Road is also in a very rough condition and hardly passable in the rainy season. Apparently roads used to be in a much worse condition. Road upgrading were undertaken in the area in the early 2000s, and long-term residents who are able to compare road conditions before and after often express gratitude that at least now roads are somewhat passable. Residents expect that the main road going through the area, Br. Mwinyi Road, will be upgraded to tarmac soon under the Dar es Salaam Metropolitan Development Project financed by the World Bank. At the time of fieldwork a number of houses along the road had been marked for full or partly demolition to make room for the road upgrading and there were ongoing negotiations about compensations.

Public transport became available in the area in the beginning of the 2000s. Before that residents had to walk, catch a ride or take a motorcycle taxi to either Nelson Mandela Road or Airport Road to access public transport. In the early 2000s small busses started servicing parts of Br. Mwinyi from the nearby Tandika area. Since then busses gradually accessed the more interior parts of the area as roads were gradually improved. Today small busses service most of Br. Mwinyi from Tandika. From Tandika there are larger busses to the city center and other parts of the city. Residents complain that the bus fare is a bit high on the busses going to Tandika despite that it is very short distance. This is because of the rough conditions of the roads. Residents also complain that busses are too few, too small and in very bad conditions. Residents also complain that there is no direct route to the central parts of the city. Despite that Br. Mwinyi is actually quite close to the city center, residents have to drop in Tandika and change to other busses going to the center. Besides making transport times longer, it also increases the transport costs, as residents have to buy a new ticket in each bus. In the nearby Temeke area there is a mini-regional bus stand with regional busses to the southern regions of Tanzania. Br. Mwinyi is also close to the TAZARA railway, which connects Tanzania with Zambia. Some residents use the railway for transport to the city centre.

How does the urban transport available to residents affect their income generating activities?

Transport is very important for the residents of Br. Mwinyi, as many works outside the area or run small-scale businesses relying on regular exchanges with markets in the central parts of the city. While far from everybody commutes on a daily basis, most of the households have at least one breadwinner working in the city or travelling to central markets regularly. The vast majority of residents rely on public transport.

4. Conclusion

What are the most pressing needs of this neighbourhood? If possible rank from 1 to 5 the priority for improvement of the following public services: water, sanitation, electricity, local transport, mobile phone signal

Residents considered that improvements are needed in public transport, water provision, waste management as well as health and education services. Residents consider that a direct bus route to the city centre, would drastically improve the accessibility of the area. While residents often complain about the quality of the roads, they also have great expectations for the planned future upgrading of roads in the area. Residents are also generally content that they are able to connect to electricity, though low-income residents often complain about the prices of connections and consumption. Br. Mwinyi is subject to the same instabilities in the power supply as the rest of Dar es Salaam. As residents rely on electric pumps for their water supply this adds and extra inconvenience to the regular power cuts. Mobile phone signal was considered sufficient by residents.

What do residents think this neighbourhood will look like in the future?

Residents expect that densification of the area will continue, partly because the profitable rental market will continue to grow, partly because of the expected road upgrading. Some expect that the road upgrading will stimulate business and facilitate a conversion of single-storey residential houses into multi-storey commercial buildings. Some expect that the road upgrading will attract industries. Some expect that more high-income people will be attracted to settle in the area. Certainly many landowners hope to be able to profit from these future developments as both rents and land prices are expected to increase with the road upgrading. *“So long as the government has started putting emphasis on the improvement of the infrastructure, like improvement of the road system, then the value of the land here will increase more and more. And we expect our business to change from renting of the rooms renting out apartments, like in Kariakoo. This is because as the area grows, there will be a lot of people who will be building flats in the area.”* (landbroker Br. Mwinyi)

Commercial houses for tenants in Br. Mwinyi



Compound in Br. Mwinyi used for mixed residential and commercial purposes



Communal well in Br. Mwinyi



Road with severe water-logging problems in Br. Mwinyi



Access road to fenced compound cut-off by sub-subsequent housing developments



Mjimwema, Dar es Salaam

1. Introduction/Background

Mjimwema is located app. 8 km south of the city centre on the Kigamboni peninsula separated from the centre by the estuary of Mzinga Creek. Administratively Mjimwema is a sub-ward of Mjimwema ward in Temeke Municipality. According to census data Mjimwema ward has experienced rapid population growth, 11.9 % per year on average from 2002-2012. As a result average population density has increased from 382 people/sq.km. in 2002 to 1176 in 2012. As Mjimwema sub-ward is located closer to the ferry than other more peripheral sub-wards of Mjimwema ward, it is possible that Mjimwema sub-ward was more densely developed in 2002. It is also possible that current population density is higher than the ward data suggests. According to the chairman's office the total population of Mjimwema sub-ward has increased from 2464 in 2002 to an estimated 6500 residents in 2012, resulting in an average annual population growth rate of 10.2 %. Unfortunately the office did not have an estimate of the size of the territory. Therefore it is not possible to calculate population density accurately. Most of land in Mjimwema is informal, though there is a smaller area of surveyed land called Kisota.

When was this neighborhood established and how?

Mjimwema was formerly a fishing village, with a core of village settlement and homesteads in the junction of the two larger roads cutting through the area; Mjimwema Road and Kongowe Road. The village settlement was surrounded by agricultural fields and bush as well as larger stone-quarries. The area started developing into an urban residential area in the first half of the 2000s, where many newcomers began buying land and developing residential houses. As there was often a delay between land purchase and change of residence, subsequent population growth happened a bit delayed from around 2005 and onwards. Majority of land in Mjimwema is informal, and here developments were facilitated by informal subdivision processes, where former landowners sold their land to newcomers, often in smaller pieces. A smaller part of Mjimwema, called Kisota area, is formally surveyed. Here the development was catalyzed and facilitated by a formal surveying process undertaken by the Ministry of Land, Housing and Human Settlement Development as part of the 20,000 plots project. In Kisota newcomers began buying land in the area in the early and mid-2000s after the surveying process.

How has the built environment changed over time?

When asked how the area looked like 15 years ago, long-term residents describe a core of village settlement along Mjimwema Road surrounded by fields, bush and stone-quarries. Houses were very few and often built from "local" or "traditional" materials like poles, stones and mud with palm leaves or grasses for roofing material. In the beginning of the 2000s newcomers describe the land they bought as "complete bush", "very rough", "wild nature" or "mashamba" (farm land). They also describe abundant vegetation and wild animals. Some particularly highlight the presence of a hippo pond in the Kisota area. Today there is still a dense core of settlement along Mjimwema Road and Kongowe Road, which is today a business area with small shops, restaurants and workshops. The surrounding areas have been developed into low-density residential areas with numerous modern houses of varying sizes in modern materials. In the informal parts of Mjimwema the plot layout is messy and the inner access roads are organic with relatively few, rough and narrow roads.

Not all roads are suited for cars. Residents have settled largely undisturbed by planners, and landowners have subdivided as they please. This has resulted in varying plot sizes, haphazard layout of plots and lack of access roads to all plots. *“We have tried to ensure those access roads during plot subdivision, but there are still problems with access roads to some of the areas. Although we have several access roads, there are also tendencies for some people to encroach on them with buildings.”* (focus group participant Mjimwema). The environment in the interior parts of Mjimwema is also dominated by the large stone-quarries located between Mjimwema Road and Kongowe Road. The quarries are surrounded by small houses, often developed very close to quarry edges and on narrow land strips in between quarry sites. Empty quarries have even been developed into residential areas with numerous small houses. The quarries cutting through the area makes the plot and road layout very confusing. The area is dusty and hot with very few trees to give shade. It is also noisy because of the use of dynamites and the heavy traffic of trucks going back and forth to the quarries. The surveyed Kisota area is located in the most interior parts of Mjimwema beyond the stone-quarries. Kisota area is a very low-density area dotted with larger houses. The surveying process has ensured that plot sizes are fairly uniform, with a clear layout of plots and access roads to all plots. In the area along the coast a stretch of public beach is used by local fishermen as well as various residents for recreational purposes. The coast is also dominated by a few very large and privately owned beach plots. Some of the plots remain empty, while others are developed with various hotels, beach resorts or large private residences. The coastal area is accessible via a smaller gravel road of fairly good quality.

How do people access land in this neighborhood?

In the informal parts of Mjimwema most current landowners accessed land through purchase from the previous owner. Many of the current landowners bought directly from an indigenous owner, while some owned plots that had been traded a few times since an indigenous owner sold the land. Land is traded on an informal market that relies on informal connections between sellers and buyers, sometimes facilitated by informal land brokers, but more often through personal relations. Relations are generally important in accessing informal land. Many describe how they “heard rumours” of land being sold in this area from friends or relatives. Some residents knew someone already living in the area that helped facilitate a purchase. Informal sales agreements are commonly formalized through written contracts, witnesses or by seeking approval from local leaders, typically the chairman of the sub-ward. Land used to be very cheap in Mjimwema, but prices have increased very rapidly. The first of the newcomers were able to get a plot for less than 100,000 TSH before 2000. Later prices started reaching several millions, and today a plot might easily cost more than 10 million shillings. In the formally surveyed Kisota area most of the newcomers accessed land through the formal allocation process, where they applied the Ministry of Land, Housing and Human Settlement Development and paid the price directly to the Ministry. Surveyed plots are often also traded after allocation. Some plots had shifted ownership once or twice since initial allocation. Some of the indigenous landowners were given plots as compensation, but most of them have sold their plots to newcomers. *“In the beginning the areas were owned by the indigenous, but after the planning processes, they were given the plots with the condition of developing the houses within a short time, or otherwise the plots would be taken. But due to the economic situation they were in, most of the indigenous were forced to sell their plots. That is why most of them are owned by the newcomers.”* (Indigenous and focus group participant). Generally land prices in Kisota are much higher than in surrounding informal parts of Mjimwema. Current prices are up around 20-30 million shillings for a plot, while the first newcomers typically paid 1 or 2 million for their plots.

2. Housing/Services

What are the main housing types in this neighbourhood (e.g. rental/home owners)? What condition are they in?

The informal parts of Mjimwema are dominated by single-story, single-family houses built in modern materials like bricks and iron-sheet roofing. House sizes vary a lot, from small and very basic houses to large, colourful villas. Plots are often large and spacious with room for economic activities, vegetable gardens, trees and small livestock like chicken and goats. Some houses are fenced off or have demarcated plot boundaries. Small basic houses dominate in the interior parts around the stone-quarries, while somewhat larger and fenced houses are typically located on more attractive land a bit away from the quarries and closer to the larger roads. In the informal parts of Mjimwema there are few empty plots, but houses are often in very different stages of completion. Most houses are owner-occupier houses, but some of the landowners have developed rooms for tenants on their compounds. Rental arrangements are often quite informal, where landowners earn extra income by subletting rooms in the main house, where they are living themselves. Some also construct a separate house for tenants on their compounds. Along the Mjimwema Road and the Kongowe road land use is often mixed commercial-residential with various small shops, bars or workshops. In the surveyed Kisota area the houses are predominantly larger modern single-family houses in bricks and iron-sheet roofing. All plots are fenced with large gates. Houses are well-maintained and often painted in bright colours. Plots are large and there is generally only one house per plot. Building densities are visibly lower than in surrounding informal areas. Houses are predominantly single-household, owner-occupier houses, and very few have any tenants on their compounds. Most residents are homeowners or parts of owners' households. Many plots are still undeveloped. Some suggest that high-ranking government officials are "sitting" on the land, without any intention of developing the land, while waiting for land prices to increase. *"Actually most of the plots are owned by the land officers, because they are the ones who made the plans for the area."* (focus group participant Mjimwema). Some of the empty plots are used for cultivation or livestock, while others have been developed with small modest houses meant for those, who take care of the plots while the owners are not using them.

How do residents in this neighborhood access water?

In Mjimwema residents rely entirely on local groundwater for their water supply. There is no public water supply from Dar es Salaam Water and Sewerage Corporation (DAWASCO). Instead residents take water from private deep wells and one communal deep well. Before deep wells were developed, residents relied on shallow wells. The communal well was constructed in the early 2000s with help from the municipality of Temeke. The communal well supplies many of the residents living in the old village. In the rest of Mjimwema private deep wells are the most common source of water. Most of them were developed by newcomers. Many residents have connected themselves to the communal or various private wells with pipeline connections to their own house, often paying on a monthly basis according to consumption. A large group of residents also rely on buying buckets of water from the communal or various private wells. Many residents complain that the ground water is too salty for drinking. Some also felt unsure about the quality and cleanness of the water. As a result they have to buy expensive fresh water from various water vendors.

How do residents in this neighborhood access electricity?

Most of Mjimwema is covered by the electricity network. The electricity network was drawn along Mjimwema Road already back in the 1980s, supposedly because of the stone-quarries. From there residents were able to extend the network to the more interior parts of Mjimwema. In the most interior Kisota area electricity has only reached quite recently. In the most interior parts residents have not been able to get the electricity network extended yet, even though some residents explained they had applied for extension both 5, 6 and 7 years ago. Though the network is present in most of Mjimwema, there is still a substantial group of residents, who have not connected to electricity. They often explain that they cannot afford to pay for the connection, or that it is not an economic priority at the moment. Some have waited because they are in the process of constructing a house and expect to connect to electricity later, when the house is finished.

How do residents in this neighborhood access toilet/sanitation?

There is no public sanitation network in the area. Residents rely on on-site sanitation solutions.

Which service needs improving the most? What improvements are needed? Are there any services this neighbourhood needs but does not have at the moment?

Residents considered that improvements are needed in health and education services, which are considered under-supplied and of poor quality. The primary school in Mjimwema have problems coping with the influx of children. There can be up to 100 children per class room resulting in lack of tables, chairs and materials for the children. *"We have got small hospital in the area and a large one at Vijibweni area, but actually it is not sufficient. Education services are also a problem, because there is very little equipment and very few benches for the students. Students are sitting on the floor because of the lack of those services."* (focus group participant Mjimwema). Residents also considered that improvements are needed in terms of water provision. Currently there is only one communal well in the area, and it is far from meeting the demand of the population. Residents also complain that the ground water is too salty for drinking. In the most interior parts of Kisota residents complained about the lack of electricity as well as the poor transport infrastructure. Firstly, the access roads connecting Kisota area to the larger roads are very rough. Secondly, there is no public transport reaching the interior parts of Kisota area. Residents have to walk, catch a ride or take a motor cycle taxi to either Mjimwema Road or Kongowe Road to access public transport.

Are people moving to/from the neighbourhood because the services are good/poor?

Often settlement happens before services and infrastructure, but in Mjimwema services and infrastructure appears to have been quite developed when the newcomers arrived in larger numbers. Mjimwema Road and Kongowe Road were tarmacked, public transport was available and the electricity network was present when the area started developing into an urban residential area. Therefore it is likely that provision of services has played an important role in attracting residents to Mjimwema.

3. Livelihood-Mobility

What type of person lives in this neighborhood? Has this changed over time? Where are people coming from/moving to? Why?

The population has changed from a small primarily indigenous population to a larger and more heterogeneous and mixed population. The term “indigenous” is used to refer broadly to people of the Zaramo tribe, which is native to the region of Dar es Salaam and the surrounding coastal region. Sometimes it means people who were born and raised in Mjimwema, sometimes Zaramo people from other parts of the region, or sometimes simply long-term residents of the former village, who are not necessarily all of Zaramo origin. Before the newcomers arrived indigenous describe that they would “live like a family” and generally be familiar with most of the neighbouring households. Today there are many newcomers in the population, who are to a large extent not indigenous to Dar es Salaam region. The first newcomers came into the area already in the 1980s and 1990s attracted by the opportunities offered by the stone-quarries. They were fairly small in numbers, though. The larger and more recent wave of newcomers is primarily urban residents shifting from other parts of the city, often more central areas. Socially they are a very heterogeneous group, consisting of low-, middle and higher-income people. Low-income residents had a chance to buy land in Mjimwema in the beginning of the subdivision processes. Later increasing land prices ensured that only more well-off people were able to buy land in the area. The surveyed nature of the land in Kisota area has also attracted higher-income people. *“Of course the rich people with the gated houses are the ones dominating that area, and all of them are newcomers”* (focus group participant Mjimwema). Some of the indigenous have shifted out of Mjimwema. Some have shifted towards the more peripheral parts of Mjimwema ward, where there is still cheap land available. Others have shifted further south along the coast towards Mkuranga, Bungu and Rufiji. There are still many indigenous residents in Mjimwema, though. The chairman estimates that the population composition today is 50/50 indigenous and newcomers.

How do people living in this neighborhood make their money? Has this changed over time? How and why?

Most of the newcomers are urban residents with urban-based incomes. Some have formal employment in government or private companies, particularly among the higher-income residents of Kisota area. Many of the residents in Kisota area are professionals with long educations, such as doctors, engineers and accountants. Some are also independent company owners. There are also employees in the informal parts of Mjimwema, but they tend to be professionals with shorter educations, such as nurses, teachers, low-level administrators and military personnel. Many of the residents are also self-employed in various informal trading and business activities. Some work in the more central parts of the city or rely on regular exchanges on central markets or the nearby market at the Kigamboni ferry. There is also a substantial part of the population who works locally. Some residents work in relation to the beach resorts located along the coast. Some work in relation to the large stone-quarries, either as employees of the large companies, or engaged in informal small-scale stone-quarrying buying large stones from the companies and hand-processing gravel and sand for resale. The quarry industry in Mjimwema has been important as a supplier of construction companies in central Dar es Salaam. Currently the industry is decreasing in importance, though, because the quarry sites are running dry. Many of the quarry companies have closed their operations in the area in recent years, and the few remaining companies also expect to do so in the coming years. As Mjimwema used to be a fishing village, the indigenous population used to be engaged in fishing and cultivation. Fishing is still an important part of livelihood strategies locally, as many of the remaining

indigenous residents are still engaged in fishing. No one is engaged in cultivation anymore, though, as the fields have been converted into residential areas. Most of the fishermen sell their catch on the Kivukoni fish market located in the city centre.

How does service availability affect income-generating activities in this neighborhood?

Transport infrastructure has facilitated the quarrying industry of Mjimwema, which has primarily supplied the construction companies in central Dar es Salaam. Residents engaging in small-scale quarrying also rely on transport infrastructure for re-sale of their products. Transport infrastructure has also made it possible for some residents to run various small-scale businesses and engage in trading activities relying on input from or exchanges on central markets. These activities provide livelihood opportunities for many low-income residents, as well as many housewives supplementing household income with small-scale business and trading activities locally.

How does the urban transport available to residents affect their mobility within but also outside of the city (e.g. travel to rural areas)?

Mjimwema is located in the T-junction between the two larger roads on the Kigamboni peninsula: Mjimwema Road and Kongowe Road. Mjimwema Road starts at the ferry at the tip of the peninsula and runs south along the coast. The ferries connect Kigamboni to the city centre. Kongowe Road meets Mjimwema Road in a T-junction and connects to the south-bound main road, Kilwa Road, near Mbagala Rangi Tatu bus station. From Kilwa Road there is access to central parts of the city as well as the southern regions of Tanzania. To be able to reach one of the other main radial roads connecting to other regions outside of Dar es Salaam residents have to pass through the city centre or the ring road of Nelson Mandela Road. Going via ferry, transport to the central parts of the city can take anything from 30 minutes to 2 hours each way depending on traffic conditions. Going via Kongowe Road and Kilwa Road it will take at least 1.5-2 hours to the centre. Mjimwema Road and Kongowe Road are both tarmacked and in a good relatively good condition. Both roads were tarmacked quite some years ago, around the early 2000s. While the roads are considered of fairly good quality, many residents complain about the ferry service to the city centre. Residents consider that the ferries are too small and often break down. Cues and congestion around ferry are very common, particularly for cars, and often adds considerable travel time to journeys to the city centre. Currently there is a bridge over Mzinga Creek under construction between Vijibweni on the Kigamboni side and Kurasini on the other side. Residents in Mjimwema expect that the bridge will draw traffic away from Mjimwema Road and ease the congestion at the ferry.

Public transport in the form of public busses has been available in Mjimwema since the early 2000s, around the same time as the roads were tarmacked. Before that trucks and pick-ups provided public transport along Mjimwema Road. Today Mjimwema is serviced from ferry by small busses along Mjimwema Road and larger busses continuing along Kongowe Road to the Mbagala Rangi Tatu bus station at Kilwa Road. No busses service the interior parts of Mjimwema. Instead residents have to walk, catch a ride or take a motorcycle taxi to the nearest large road. In the most interior Kisota area some residents prefer to walk through the valley to Vijibweni to catch busses to ferry, because it is actually closer than walking to Mjimwema or Kongowe Road. From Mbagala Rangi Tatu bus station at Kilwa Road residents can catch other busses to the city centre as well as regional busses to the southern regions of Tanzania. From ferry residents have to cross Mzinga Creek on one of the ferries to catch busses to other parts of the city. Currently there is construction work on the other side, which means that normal bus routes cannot reach all the way to the ferry. Instead special shuttle busses connect ferry with central bus stations like Posta and Stesheni. From there

busses are available to many other parts of the city. The special shuttle busses are under-supplied, and this often adds considerable travel time.

How does the urban transport available to residents affect their income generating activities?

Transport is very important for the newcomers, as many work outside the area or run small-scale businesses relying on regular exchanges with markets in the central parts of the city. Many also work in relation to the business area around the Kigamboni ferry. While far from everybody commutes on a daily basis, many households have at least one breadwinner working in the city or travelling to central markets regularly. Some of the higher-income residents rely on private cars as their primary mean of transportation, while the majority of residents rely on public transport. Transport is also important for the stone-quarrying industry. The fishermen are less dependent on transport infrastructure as they typically sail their catch to the Kivukoni fish market located in the city centre just across from the Kigamboni peninsula.

4. Conclusion

What are the most pressing needs of this neighbourhood? If possible rank from 1 to 5 the priority for improvement of the following public services: water, sanitation, electricity, local transport, mobile phone signal

Residents considered that improvements are most needed in health and education services, provision of water and the ferry services connecting Kigamboni to the city centre. In the interior parts of Mjimwema residents also considered that improvements are needed in electricity supply and improvements of inner access roads. Besides the ferry, residents are generally satisfied with the transport services, both the conditions of the main roads as well as the provision of public busses. Residents also have great expectations to the future bridge across Mzinga Creek. Residents are also generally content that they are able to connect to electricity, though low-income residents often complain about the prices of connections and consumption. Mjimwema is subject to the same instabilities in the power supply as the rest of Dar es Salaam. As residents rely on electric pumps for their water supply this adds and extra inconvenience to the regular power cuts.

What do residents think this neighbourhood will look like in the future?

Mjimwema is part of the Kigamboni New City Project, a plan for the larger Kigamboni area involving land surveying, infrastructure improvements and redevelopment of the housing stock. This has made current residents in Mjimwema insecure about the future of the area as well as their own futures in the area. Some landowners fear losing their land and worry about valuation and compensation disputes. Some hope that the project will not be fully realized, particularly not in this rather peripheral part of Kigamboni. *“Most of us are wishing the project did not to exist in the area, although there are some who want the exercise to be implemented even tomorrow, for the sake of the compensation money and future development in other areas. But many of us, are wishing negatively for the project implementation, because there are no clear compensation terms and values, and we are not completely sure of it.”* (focus group participant Mjimwema). The project has also made Kigamboni land subject to intense speculation, as land values are expected to increase drastically as a result of land surveying and infrastructure improvements. Outside investors are busy buying up land in the area, and currently land prices are increasing very rapidly.

Single-family house in the informal part of Mjimwema



Smaller houses and small-scale stone-quarrying activities around the quarry area



Large modern house on fenced compound near Mjimwema and Kongowe Roads



Scattered houses in the surveyed Kisota area of interior Mjimwema



Maji Matitu B, Dar es Salaam

1. Introduction/Background

Maji Matitu B is located app. 13 km. south of the city centre. Administratively Maji Matitu B is a sub-ward under Charambe ward in Temeke municipality. According to census data Charambe ward has experienced quite rapid population growth, app. 10.9 % per year on average in the 2002-2012 period. As a result average population density has increased from 4893 people/sq.km. in 2002 to 13,706 in 2012. As Maji Matitu B is located in the interior part of Charambe ward, it is likely that this area was much less developed in 2002 than the less interior sub-wards, which were already consolidated settlements at the time. It is also possible that the current population density is lower than the ward data suggests. Until 1995 Maji Matitu had formal status of a village. In 1995 the area was given the status of a sub-ward, and in 2009 the sub-ward was split in two, Maji Matitu A and B respectively, because of population growth. Rapid population growth has continued since then. According to the chairman's office the population of Maji Matitu B sub-ward has increased from 3285 people in 2009 to 12,941 at the time of fieldwork in 2014, resulting in an average annual growth rate of more than 30 % from 2009-2014. Unfortunately the office did not have an estimate of the size of the territory. Therefore it is not possible to calculate population density accurately. All land in Maji Matitu B is informal.

When was this neighborhood established and how?

Maji Matitu B was formerly part of a peri-urban village known as Maji Matitu with a core of village settlement and homesteads along the Charambe-Mbande road surrounded by agricultural fields and bush. The area started developing into an urban residential area in the end-1990s, where newcomers began buying land and developing houses in the area. One newcomer, who bought land in 1998, considers himself among the first newcomers. All land in Maji Matitu B is informal, meaning that no land has been surveyed through the formal land allocation system. Developments were facilitated by informal subdivision processes, where former landowners sold their land to newcomers, often in smaller pieces. At the time subdivision began, all land in Maji Matitu village was owned by four large family clans; the Stambuli, Mpeta, Amrani and Kinyamkera families. Members of the four families are referred to as "indigenous". The first of the newcomers all bought their land from one of these families. As there was often a delay between land purchase and change of residence, subsequent population growth happened a bit delayed. The in-flow of newcomers was most rapid from the mid-2000s and onwards.

How has the built environment changed over time?

When asked how the area looked like 15 years ago, long-term residents describe a small core of village settlement along the Charambe-Mbande road surrounded by agricultural fields and bush. Houses were very few and often built from "local" or "traditional" materials like logs, stones and mud with palm leaves or grasses for roofing material. The first newcomers describe the land they bought as "complete bush", "very rough" or "mashamba" (farm land). They also describe abundant vegetation, wild animals and complete darkness as soon as the sun went down. Around 2000 most of the houses were still concentrated along the Charambe-Mbande road. From around 2002-2003 houses started being built in the interior parts of Maji Matitu B known as Chasimba area. Today there is still a dense core of settlement along Charambe-Mbande Road, which is today a busy business area with numerous small shops, restaurants and workshops. The surrounding fields have been

developed into medium-density residential areas with small modern houses in modern materials like bricks and iron-sheet roofing. Houses and plot sizes vary, though small houses and small plots dominate in the environment. Even though the area is densely developed, it still appears as a green and spacious area. Many homeowners have developed small gardens around their houses and there are some open spaces between houses. The plot layout and inner road network appears somewhat messy and organic. Residents have settled largely undisturbed by planners and landowners have subdivided as they please. This has resulted in varying plot sizes and a haphazard layout of plots. The area does not suffer from lack of access road, though, at least not to the same extent as many other informal areas. Most of the area is generally quite accessible, also by car. Local leaders have managed to ensure that space for roads was respected in individual land sales and subdivisions. *“That is our challenge, for us as leaders, and it might happen that sometimes you even come in conflicts with others, when you try to stop someone from developing anything, maybe on the road. The conflicts arise and it becomes a personal conflict.”* (local leader Maji Matitu B) None of the inner roads are tarmacked, but nonetheless of fairly good quality. There are few problems with water-logging, even in the rainy season. Indeed that is something residents value about the area. Rain water is easily absorbed or run down in the wet valleys surrounding Maji Matitu B in most directions. For those living on the valley slopes, there are some associated problems with mud slides though.

How do people access land in this neighborhood?

In Maji Matitu B most current landowners accessed land through purchase from the previous owner. Some of the current landowners bought directly from one of the four indigenous landowners, but many plots had also been traded a few times since an indigenous family sold the land. Land is traded on an informal market that relies on informal connections between sellers and buyers, sometimes facilitated by informal land brokers, but more often through personal relations. Relations are generally important in accessing informal land. Many describe how they “heard rumours” of land being sold in this area from friends or relatives. Some residents knew someone already living in the area that helped facilitate a purchase. Informal sales agreements are commonly formalized through written contracts, witnesses or by seeking approval from local leaders, typically the chairman of the sub-ward. Land prices have increased considerably over time. The first of the newcomers could buy a larger plot for a 1-200,000 TSH in the end-1990s. Up until 2005 you could still buy a smaller plot for around 500,000 TSH, whereas nowadays the prices are often up around 10 million THS.

2. Housing/Services

What are the main housing types in this neighbourhood (e.g. rental/home owners)? What condition are they in?

Maji Matitu B is dominated by single-story, single-family houses built in modern materials like bricks and iron-sheet roofing. Houses are predominantly small, though there are also larger houses here and there. Plots are generally small and densely developed with housing, though there is also space for smaller gardens around some of the houses. Most plots are not fenced, but some of the larger houses are fenced off or have demarcated plot boundaries. There are few empty plots, but houses are often in very different stages of completion. Most houses are owner-occupier houses, but some of the landowners have developed rooms for tenants on their compounds. Rental arrangements are often quite informal, where landowners earn extra income by subletting rooms in the main house, where they are living themselves. Many landowners have also constructed a separate house for tenants on their compounds. Today there is a fairly vibrant rental market in Maji Matitu B and the demand for rental rooms is quite high. *"Nowadays there are so many tenants in this area and also the prices for the rental houses and rental rooms have gone up. Now it is between 20,000 TSH up to 40,000 TSH for a room. They come here for several reasons, such as high renting prices in those areas, where they are coming from. Some of them have bought land here, so they wish to be nearby to their site, so they can supervise the on-going construction."* (Focus group participant Maji Matitu B). Many landowners have also developed business frames on their land, especially along the roads, with space for various small shops, restaurants or workshops.

How do residents in this neighborhood access water?

In Maji Matitu B residents rely entirely on local groundwater for their water supply. There is no public water supply from Dar es Salaam Water and Sewerage Corporation (DAWASCO). Instead residents take water from a number of private deep wells. Before deep wells were developed, residents relied on shallow wells as well as the rivers and streams in the bottom of the valleys surrounding most of Maji Matitu B. Individual residents started drilling their own private deep wells after the electricity network reached the area, as electricity is needed for the pumps. *"The drilling of private water wells was motivated by the presence of electricity in the area, because now people find it much easier to drill their own wells and then pump water by using the electrical water pumps. So before year 2002 there was no electricity and water supply."* (focus group participant Maji Matitu B). The chairman's office estimates that there were 58 private deep wells in Maji Matitu B at the time of fieldwork. There were no communal wells. Some residents have connected themselves to private wells with pipeline connections to their own house, often paying on a monthly basis according to consumption. The majority of residents rely on buying buckets of water from private wells. Some residents consider that the ground water is safe and of good quality, while others complain that the groundwater is too salty for drinking. As a result there are often long queues to the few wells giving fresh water. *"In reality they do not satisfy our demand for water... and the water we get from those wells is salty. Among those 58 water wells, it is very possible that only four water wells contain fresh water, and it is in different areas. It always cost us 15 minutes to walk back and forth to get fresh water, and all the time you find a long cue waiting for fresh water. But the salty water, you can find it anywhere."* (focus group participant Maji Matitu B)

How do residents in this neighborhood access electricity?

Maji Matitu B is covered by the electricity network. The electricity network reached the area in 2001-2002. There was no electricity in the area before that, but the network ended quite close by along the Charambe-Mbande road. In 2001 residents had a meeting and applied Tanzania Electricity Supply Company (TANESCO) for extension of the electricity network together. Within the same year poles were installed and extension began. In 2002 individual residents were able to connect their houses to electricity. Today most of the area is covered by the electricity network, though some residents in the most interior parts of the area complain that there is no voltage in the lines. Though the network is present in most of Maji Matitu B, there is still a substantial group of residents, who are not connected to electricity. They often explain that they cannot afford to pay for the connection, or that it is not an economic priority at the moment. Some have waited because they are in the process of constructing a house and expect to connect to electricity later, when the house is finished.

How do residents in this neighborhood access toilet/sanitation?

There is no public sanitation network in the area. Residents rely on on-site sanitation solutions.

Which service needs improving the most? What improvements are needed? Are there any services this neighbourhood needs but does not have at the moment?

Residents consider that improvements are highly needed in health and education services. Currently there are no public dispensaries or hospitals. There is a public school, but their services are considered insufficient to meet the demand of the current population. Residents also consider that improvements are needed in water provision. Currently there are no communal wells in the area, and much of the local groundwater is too salty for drinking. *"We want clean and safe water, wherever it is from, not necessarily from Dawasco. We have this salty water, and particularly in the dry season, if you go to the water points, you won't find water. Sometimes you have to wait for 2 hours for the pump to bring water up to the pipes."* (focus group participant Maji Matitu B). Residents also consider that improvements are needed in public transport, which most residents rely on. Residents complain about too few and too small busses servicing too many people. The public busses servicing the area are generally old and worn and notoriously overcrowded.

Are people moving to/from the neighbourhood because the services are good/poor?

Provision of services was not part of the settlement considerations for the first of the newcomers, simply because they bought land that was largely un-serviced. Many of the first newcomers lived in the area for some years without services. As services developed along the way it has made the area more attractive and fuelled further population growth, particularly since the mid-2000s. Particularly the electricity extension as well as upgrading of the Charambe-Mbande road have improved the area and attracted many more newcomers. The development of services has also facilitated the emergence of a fairly vibrant rental market and contributed to making the area an attractive area for tenants.

3. Livelihood-Mobility

What type of person lives in this neighborhood? Has this changed over time? Where are people coming from/moving to? Why?

The population has changed from a small population of primarily coastal people of the tribes Zaramo and Ndengereko, to a much larger and more heterogeneous population. The Zaramo people are indigenous to the region of Dar es Salaam and the surrounding coastal region, while Ndengerekos originate from coastal areas further away. Before the newcomers arrived most residents belonged to the four larger family clans. Today there are many newcomers in the population, who are to a large extent not indigenous to Dar es Salaam region. The newcomers are primarily urban residents shifting from other parts of the city, often more central areas. Socially they are a very heterogeneous group, though primarily consisting of low and middle income people. Many newcomers originate from the southern regions of Tanzania, such as Mtwara and Lindi, though there are newcomers from all over Tanzania living in the area. Today residents agree that there are very few indigenous residents in Maji Matitu B, but there is some disagreement as to why this is so. Some consider that most indigenous have shifted out of the area, often further south-west along Charambe-Mbande Road towards Msongola, Mbande, Chamazi and Mvuti. Others consider that indigenous have simply been outnumbered by newcomers, as there were very few indigenous to begin with.

How do people living in this neighborhood make their money? Has this changed over time? How and why?

All of the current residents are urban residents with urban-based incomes. A few residents have formal employment in government or private companies, but the majority are self-employed with various informal trading and business activities. Many work in the central parts of the city or rely on regular exchanges on central markets. Some also work in the nearby business district around the Mbagala Rangi Tatu bus station on Kilwa Road. Locally there is also a fairly vibrant business life with many small shops, restaurants and workshops providing livelihood opportunities for some residents. Before the newcomers arrived the indigenous were engaged in agriculture and livestock-keeping, though not necessarily exclusively. There are also tales of long-term links to urban economies among long-term residents formerly engaged in agriculture. At the time of fieldwork no one were engaged in cultivation anymore.

How does service availability affect income-generating activities in this neighborhood?

Transport infrastructure has made it possible for some residents to run small-scale retail shops, where they supply Maji Matitu B residents with various goods from central markets. It has also made it possible for residents to engage in production of various products, such as handicraft and batik meant for the urban markets. Furthermore, transport infrastructure and electricity has facilitated the emergence of various local businesses such as small shops, restaurants and workshops supplying local customers and relying on input from central markets. These activities provide livelihood opportunities for many low-income residents, as well as many housewives supplementing household income with small-scale business and trading activities locally.

How does the urban transport available to residents affect their mobility within but also outside of the city (e.g. travel to rural areas)?

Maji Matitu B is located on the Charambe-Mbande road, which starts at the south-bound main road, Kilwa Road, near the Mbagala Rangi Tatu bus station, runs south-west and connects to the village of Mbande in the coastal region. From Kilwa Road there is access to the central parts of the city as well as to the southern regions of Tanzania. Transport to the centre can take anything from 1-3 hours each way depending on traffic conditions. When the roads are free on Sundays it can take as little as 30 minutes. To be able to reach one of the other main radial roads connecting to other regions outside of Dar es Salaam residents have to pass through the city centre or the ring road of Nelson Mandela Road. The Charambe-Mbande road was previously a small and rough road, but it was tarmacked and widened to two lanes in the 2002. Despite being tarmacked the road is in a bad condition with many potholes and lack of drainage systems. Currently it is undergoing construction work. The plan is to widen the road to four lanes and connect it to the south-west bound main road, Airport, Road at the Banana junction. There are supposedly already rough roads connecting with the Airport Road through the peripheral areas of Msongola and Chanika, but they are very rough and not passable during the rainy season.

Public transport became available in the area in the beginning of the 2000s. Before 2003 all busses from town ended at the Mbagala Rangi Tatu bus station at the south-bound main road, Kilwa Road. Therefore residents in Maji Matitu B had to walk, catch a ride or take a motorcycle taxi to Kilwa Road to access public transport. *“Previously we used to walk on foot, or you could catch the pick-ups if available from Rangi Tatu to here at Maji Matitu. Back then even the road was not tarmacked yet. Later on the taxis started being put into business from Rangi Tatu to here and people would hire it by sharing the costs between them. It wasn’t until in 2003 we started seeing only one or two small busses.”* (Focus group participant Maji Matitu B). In 2003 small busses started servicing the areas along the Charambe-Mbande road, and from around 2007 busses became larger and more aplenty. Today many busses service the Charambe-Mbande road from the Mbagala Rangi Tatu bus station, typically with endpoint in one of the south-western peripheral areas such as Chanika or Msongola. Until 2013 residents had to walk to the Charambe-Mbande road to access public transport, but since the end of 2013 one of the bus routes started servicing the interior parts of Maji Matitu B as well. From the Mbagala Rangi Tatu bus station there are large busses going straight to the city centre with endpoints in for an example Posta, Kariakoo and Kivukoni. From there other busses connect to other parts of the city. From the Mbagala Rangi Tatu bus station there are also large busses connecting to Kigamboni ferry along the Kongowe road and Mjimwema road. There are also regional busses connecting to the southern regions. Residents complain that busses are too few, old and worn and notoriously overcrowded.

How does the urban transport available to residents affect their income generating activities?

Transport is very important for the residents of Maji Matitu B, as many works outside the area or run small-scale businesses relying on regular exchanges with markets in the central parts of the city. Many also work in relation to the business area around the Mbagala Rangi Tatu bus station. While far from everybody commutes on a daily basis, most of the households have at least one breadwinner working outside the area or travelling to larger markets regularly. The vast majority of residents rely on public transport.

4. Conclusion

What are the most pressing needs of this neighbourhood? If possible rank from 1 to 5 the priority for improvement of the following public services: water, sanitation, electricity, local transport, mobile phone signal

Residents consider that improvements are most needed in health and education services, water provision and public transport. Residents are generally satisfied with the conditions of the inner access roads, and have great expectations for the current upgrading of the Charambe-Mbande road. Residents are also generally content that they are able to connect to electricity, though low-income residents often complain about the prices of connections and consumption. Maji Matitu B is subject to the same instabilities in the power supply as the rest of Dar es Salaam. As residents rely on electric pumps for their water supply this adds and extra inconvenience to the regular power cuts.

What do residents think this neighbourhood will look like in the future?

Residents expect that the area will develop into a busy business and industrial area. Residents consider that the current upgrading of the Charambe-Mbande road will facilitate that it can be used as a bypass for heavy traffic from the harbour. Currently most traffic from the harbour passes through the more central ring road, Nelson Mandela Road, which is notoriously congested. Residents also expect that the areas along the Charambe-Mbande road, including Maji Matitu B, may be converted into storage facilities in relation to the harbour. Already some companies involved in storage facilities have showed an interest in the area and entered into negotiations with some of the landowners.

Commercial houses for tenants in Maji Matitu B



Single-family house in Maji Matitu B



Private borehole on compound in Maji Matitu B with water tank ensuring water pressure in pipes inside the house



Compound used for mixed commercial and residential uses



Tanzania: Arusha settlement reports

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Ward	Location From the city centre	Historical Development	Planning and development status	Income status	Rate of population growth	Remarks
Muriet Sub-ward	8kms south of city centre (periphery)	Initially established in 1948 as a Maasai settlement but rapid subdivision of land started in 1974 after army barracks was established. Before 2012 it was part of Arusha district. Grew fast from 2008 when market was opened.	Unplanned Not surveyed Rather Dense	Middle	Relatively fast growth	Most of recent arrivals are owner occupiers Fast growing settlement due to trade and gentrification. Skyrocketing land prices
Olmatejo Sub-ward	1-3 kms from the city centre. Part of the city proper.	Originally occupied by Waarusha. Old settlement same age as Council established in early 20 th century. Experiencing decrease in population.	The original was planned but current development is informal The settlement is densely populated	Low	Shrinking population	Most of recent arrivals are tenants arrive and houses are designed to accommodate tenants Settlement is gentrified along the roads and turning into commercial areas. Serious lack of services in interior areas
Madukani Sub-ward	3-4 km, south of the city centre	Developed since 1980 in relation to Unga Ltd. Registered fast increase; in 10 years population density has increased by 77%	Unplanned settlement	Low Low middle	Relatively slow growth	Growing settlement, with still option for upgrading to provide services Skyrocketing land process

Madukani Sub-ward, Sokoni 1 Ward, Arusha

Introduction

Madukani Sub-ward is located in Sokoni 1 Ward, some 2 to 2.5 kilometres from the city centre. The sub-ward is bordered by Olmorkea, Migungani and Olevolosi sub-wards in the East, Lolovoni sub-ward in the West, Sainevuno and Kanisani sub-wards in the North and Longdong in the South. It has a total area of 56 ha, making it the sixth smallest sub-ward out of 13 sub-wards in Sokoni 1 Ward.

Madukani is a highly populated sub-ward in Sokoni 1 Ward, accommodating 10.7 percent of the ward population in only 3.8 percent of the total ward area. According to the 2012 Population Census, the sub-ward has a total population of 6,864 people, compared with 5,994 and 2,976 in 2002 and 1988 respectively. The neighbourhood has experienced a high population growth at 1001.4 in absolute numbers at a growth rate of 5.4 between the years 1988 and 2002; whereas in 2002 and 2012, the population increased by only 14.5 percent in absolute numbers, at a growth rate of 1.4 percent.

The sex ratio based on 2012 Population Census is 94 males per 100 females, being higher than that of the city (92 males per 100 females) but similar to that of the ward. The Madukani population density is 12,257 persons per square kilometre, which is higher than that of the ward (4,948 people per square kilometre) and an average household size of 4 persons per household; which is similar to that of the ward.

When was this neighbourhood established and how?

The word 'Madukani' is a Swahili term, which means a 'shop area'. This name originates from the 1970s when the first shop was established in the area. Prior to 1970s, Madukani sub-ward was occupied by local inhabitants whose occupations were farming and livestock keeping. The settlement started changing from being a farmland and became a built up area in the late 1970s and early 1980s. This was the period immediately after the Tanzania-Uganda War (famously called the Kagera War, which was fought between 1978 and 1979). Madukani was initially predominantly developed by people who originated from Kilimanjaro Region.

In the late 1990s and the 2000s, large areas around the city centre were surveyed and developed. During this period, the sub-ward changed rapidly as it became a location for receiving people who were pushed away from the city centre. Compared to other sub wards, the Madukani sub-ward enjoys better public services and facilities.

How has the built environment changed over time?

Based on 2002 and 2012 satellite image covering the Madukani sub-ward, two main covers of built up areas and farms were identified. The built up areas and fields have shown a

considerable changes in the last 10 years. The built up area has increased its coverage from 61.8 percent in 2002 to 77.4 percent in 2012. The fields have decreased from 38.2 percent to 22.6 percent. The table below reveals coverage changes in the area.

Land cover type	Coverage (2005)		Coverage (2013)	
	Coverage (Ha)	Coverage (%)	Coverage (Ha)	Coverage (%)
Built up area	34.8	61.8	43.6	77.4
Field	21.5	38.2	12.7	22.6

Source: fieldwork data, April 2014

Just like the land coverage changes, land use has also changed during period in-between. Residential and commercial uses have increased, as farms and gardens have decreased. The table below summarizes the changes in land uses in the sub-ward.

Land use	Coverage (2005)		Coverage (2014)	
	Size (Ha)	Coverage (%)	Size (Ha)	Coverage (%)
Residential	34.02	60.4	39.99	70.99
Commercial	0.74	1.3	3.6	6.4
Small farming/gardening	21.56	38.3	12.7	22.5

Source: fieldwork data, April 2014

How do people access land in this neighbourhood?

Individuals and households in the settlement access land informally. Whoever wants to buy some property has to follow at least four steps as highlighted by local government and other respondents through focus group discussions. These are:

- searching for land and the land owner through 'informal estate agents' famously called *dalalis*.
- negotiating the price with the land owner.
- documenting the Agreement of Sale to the public notary and paying the agreed price (approximately 90 percent of the transactions do not involve the local authorities)
- involving local authorities at grassroots (lowest ward and sub-ward levels)
 - Approximately 10 percent of the deals undergo transaction at this stage mainly for;
 - i. assurance of the transaction,
 - ii. reducing the risk of double dealing on the same property,
 - iii. avoiding future land conflicts, and
 - iv. securing official witnesses.

One of the respondents shared his experience during the focus group discussion on how he got land in the mid-1970s. He said:

"...getting land is quite difficult nowadays compared to the early days, when I was still a youth. In the early 1970s, getting land was cheap because it was the local inhabitants who were selling it. These days, we, the newcomers, do not sell land at the price, the local inhabitants offered. The major reason is that the local inhabitant didn't know the real value of land, but we do. In 1976, I bought four acres at a price of TZS 15,000/=, several bottle of beers and some roast meat. I first had to look for a person who knew the owner of the farm. The farm owner was living in Monduli. I had to approach and persuade the farm owner several times until he agreed. Generally speaking, creating friendship in those days was a prerequisite for getting land."

Another discussant shared her experience on how she got a piece of land in the 2000s. She said:

"A small piece of land was sold at TZS 150,000/= in 2002. That was the price of a piece of land whose size was equivalent to that of a single room (12 x 12 feet). So I bought a number of 'rooms' whose value amounted to the money I possessed. I was assisted by an old man who had lived here for a long time and who knew the land owner."

Currently, the price of a similar room size area ranges between TZS 700,000/- and TZS 1,000,000/-, while a buyer has to search for a potential seller through the *dalalis* (middle men).

Housing and Services

What are the main housing types in this neighbourhood (e.g. rental/home owners)?

What condition are they in?

Various housing types of houses are found in the settlement in terms of use, building materials, design, use and ownership. In terms of building materials, over 90 per cent of houses are made of cement and sand blocks, while in the past, the majority of homes were made of mud and poles. A few mud and pole houses still exist, about 7 per cent. On the other hand, the cement-sand blocks buildings are generally in good conditions, although some of them are old and in dire need for repair and maintenance. The major house uses are residential and commercial. Commercial buildings are mainly located among the two major roads passing through the settlement. All the houses are low raised buildings (single storey). There is no official data on the numbers of house owners and tenants; much as it appears that there are slightly more tenants than house owners in the location. There are also a number of houses still under construction.

How do residents in this neighbourhood access the following services?

(a) Water?

People in the neighborhood get their water supply from the Arusha Urban Water Supply and Sewerage authority (ARUWASA) as well as springs and boreholes. The area has a high water table which enables local residents to drill shallow and deep wells. Whenever the water supplied by ARUWASA is not available, householders with water-holes sell their water to those in need at TZS 100/= to TZS 200/= per bucket of 20 liters.

The quality of water supplied by ARUWASA is good because it is treated before being supplied to the customers, while not all the water from the wells is treated, and some of it is salty. Not all houses are connected to the ARUWASA supply pipes or have wells. Households that have no access to water services usually buy water from neighbors who enjoy abundant water supply.

(b) Toilets/sanitation?

The main types of excreta disposal systems are flush toilets, pit latrines and improved pit latrines. The majority of households use improved pit latrines and flush toilets. Vehicle emptiers are used to drain filled up septic tanks and pit latrines. A number of tenants complain of pit latrines being full and but not emptied. One of the interviewees narrated his story as follows:

"We, as tenants, have already informed the landlord about this filled up pit that need to be emptied, but he said that he has no money. When it was full to the brim to the point of not being used completely, the landlord told us to use the latrine in his own house, which is located approximately 40 metres from the place we live. This is very

embarrassing, especially when one has a stomach upset. We have no choice but to continue being patient because every time we remind him, he says he has no money for the purpose and that "if you can't live in his house, you are free to go somewhere else"

When asked why they can't look for other places, which are more hygienic, she said;

"The renting price is higher in other homes compared to this place. I personally can't afford to pay more money. I thus continue to tolerate the situation."

(c) Electricity?

The majority of houses are connected with electricity, which is supplied by TANESCO, while households that are not connected to grid power, use kerosene, solar lamps or candles for lighting their homes. Two major reasons were pointed out as the main factors for some houses not having electricity. These are:

- Inability to afford the initial service line connection costs.
- Electricity services were disconnected after failure to pay monthly electricity charges.

The network of electric lines follows the irregular pattern of the settlement's roads and paths, just like the water pipes. Power blackouts are prevalent both in the city and in the settlement. During such time, people use candles and solar lamps as a temporary solution until electricity is restored. .

(d) Mobile phones?

Most of the people in the locality own various types of mobile phones that are used both for communication and money transfer. In very rare cases, you may find a problem with the communication signals. Once this happens, then the problem is for the whole city or country, and the service providers normally apologize.

(e) Roads/local/public transport?

The roads in the neighbourhood are in poor condition and are inadequate. They do not have tarmac and not regularly maintained. They are easily passable during the dry season and passable with difficulty during the rainy seasons. There are only two main roads which cross the locality, and which are normally maintained by the city authority. Minor roads and routes are normally unattended and are in a bad shape, especially during the rainy season. There are two main types of public transport in the area, these are minibuses and motorcycles. The buses operate in two main roads that pass through the area; some cutting through the eastern side of the settlement and the others on the western side. Motorcycles provide services all over the settlement from early morning to late evening. The cost per trip in public buses is TZS 400.00. As for motorcycles, prices depend on the distance covered, normally starting with TZS 1,000.00.

Which service needs improving the most? What improvements are needed? Are there any services this neighbourhood needs but does not have at the moment?

The majority of respondents, including both local officials and focus group discussants, pointed out that the first service that needs to be improved are roads. As pointed earlier, the area has inadequate and poorly maintained roads. An improved road network will open up a lot of development opportunities, including improved public transport, higher property value and smoother business activities. The second service, which needs to be improved, is storm water drainage. The existing major roads have no storm water drainage systems. This makes it easier for the roads to be damaged by storm water. Storm water drainage will protect the roads and other properties from being damaged by floods. Improved networks shall not only minimize road maintenance costs but shall also make them passable throughout the year.

The third area that has to be improved is the provision of medical services. It was pointed out during an official interview and focus group discussions that medical services are not available within the settlement. There are few private dispensaries in the ward but not in the sub ward. This is what one of the respondents said during a focus group discussion:

"...if someone is seriously sick or wants to give birth, he/she must go to Mount Meru Regional Hospital. To do so, you have to board a motorcycle or else take public bus, then finally walk to the hospital. There is no bus route that can make it possible for a patient to drop at the hospital entrance."

Are people moving to/from the neighbourhood because the services are good/poor?

People generally move into the settlement due to the availability of land and one service which is transport. Other services tend to follow latter as the area gentrifies. The major factor is closeness of the locality to the city centre where social services are abundant. Services that can be availed from outside the settlement are primary and secondary schools, health facilities and food markets. The majority of people who move into the settlement are in the low income bracket, mostly commuting tenants who are employed as casual workers at the companies, 'A to Z' and 'Unga Limited'. Most of respondent had originally settled in neighbouring settlements such as 'Unga Limited'.

Livelihood and Mobility

What type of person lives in this neighbourhood? Has this changed over time? Where are people coming from/moving to? Why

The settlement comprises of low, middle and few high income people. The low income households form the majority, most of their occupants being tenants whereas the middle income people are mainly landlords and farm owners. The ethnic composition of the tribes living present in the area are Chagga, Rangi, Sagala, Pare, Nyamwezi, Meru, Maasai, Taita and Nyakyusa tribes. The Chagga are the majority among the property and land owners.

The Maasai were the original inhabitants of Madukani area. Since the 1950s, they have continuously been pushed away by urban expansion and change of land use, factors which do not support their extensive livestock keeping practices. This has made them to move to outskirts of the city and other areas all over the country. The ethnic composition of Arusha inhabitants and Madukani in particular is heterogeneous and, in fact, too complex to understand. The Maasai who are the indigenous people are now the minority group.

People residing in Madukani hail from various places such as Arusha, Kilimanjaro, Morogoro, Tanga, Dodoma, Manyara, Singida, and Mbeya regions. The majorities of inhabitants originate from Kilimanjaro Region and are Chagga by tribe.

How do people living in the neighbourhood make their money? Has this changed over time? How and why?

Most of the people in the settlement are engaged in various livelihood occupations, which include both formal and informal activities. The livelihood operations range from small retail businesses to small scale service and manufacturing industries. Since the first establishment of retail shops in the 1970s, it is estimated that there are currently some 220 retail shops, a brick making industry, a plastic refining industry, grain mills, small scale construction activities, and carpentry and tailoring shops.

The housing sector contributes to the economy of people in the area. It is estimated that half of all the houses are either whole or partly rented for residential, commercial or small scale industry use.

Both formal and informal economic and social opportunities in Madukani support the livelihoods of residents. Some individuals undertake their livelihood activities within the settlement, some outside and some both within and outside the location. Small scale traders purchase goods and services from other parts of the city and sell them inside the settlement. On the whole, the majority of activities are small scale and fall in the informal sector category.

How does service availability affect income-generating activities in this neighbourhood?

Apart from the existence of in-house services such as water and electricity, other social services are available outside the settlement. Extra time and money is spent accessing them. This reduces the amount of working hours, which an individual would otherwise have used to raise his income. This is true because most of the residents are self-employed. Lack of most key social services within the area increases the cost for accessing them, especially the wholesale shops and markets, education and health facilities.

How does the urban transport available to residents affect their income generating activities?

As stated earlier, the settlement is served by two main modes of public transport: minibuses and motorcycles. The minibuses serve only a limited area of the neighbourhood, while motorcycles cover a much wider area. Minibuses stop operating at around 2100 hours, forcing people to use motorcycles, which are rather expensive. Due to the fact that it is not easy to transport goods through the minibuses, traders are forced to use motorcycles which are much more expensive. However, many people find motorcycles much more convenient, much as they are more costly, simply because the public buses take much longer by making frequent stops.

How does the urban transport available affect residents' mobility within but also outside of the city (e.g. travel to rural areas)?

Poor public transport affects the mobility of the local communities due to the following factors: time wastage, high transportation costs, overcrowding in mini buses, and high exposure to traffic accidents. Time wastage occurs due to time used to reach the two roads that are served by minibuses and also the long-waiting periods. As pointed earlier, residents prefer to transport goods by motorcycles which are much more convenient, even though they are rather expensive. The minibuses are overcrowded and less comfortable. The limited number of buses operating in the area has forced the local people to use motorcycles which are, however, prone to more accidents.

Conclusion

What are the most pressing needs of this neighbourhood? If possible rank from 1 to 5 the priorities for improvement of the following public services: water, sanitation, electricity, local transport, mobile phone signals

Despite the fact that Madukani settlement is unplanned settlement, it still has some opportunities for improvement of its infrastructure; especially the roads, if strategic interventions are made right away. These should include designation of infrastructure wayleaves through land use planning. If quick actions won't be taken, then future interventions, when the settlement is fully built, will be much more costly. Immediate action shall make future infrastructural projects like sewerage system construction much easier. Additionally, there are empty spaces that can be acquired by the government to establish health centres and provide other basic services that need space. It is therefore easier and cheaper to acquire them now, when the land is not that expensive, rather than waiting until it is built up and the price is also higher.

Information collected from varied sources reveals several needs that are pressing at the moment. These are: main road improvement, construction of a health centre, police post, and sewerage system; and finally introduction of a route that passes across the settlement. These needs are further summarized briefly as follows:

- i. *Main roads improvements:* Road improvement will open up the settlement and connect it with the rest of Arusha city. This will reduce private and public transportation costs, and facilitate a smoother movement of goods, services and people. A focus group discussant pointed out that at times, when a person is seriously sick, and needs to be quickly rushed to hospital, the taxi drivers choose longer routes because the shorter routes are allegedly in bad condition. This is also true when transporting goods to and from the settlement.
- ii. *Health centre:* There is no medical centre in the suburb. Residents rely on health centres located in the city centre or attend private dispensaries, the latter providing limited services at high cost.
- iii. *Police post:* For security reasons, the whole Sokoni 1 Ward, which is a highly populated ward in the city, relies on a police post that is located at Unga Ltd sub-ward, a place which is a bit far from the settlement.
- iv. *Sewerage system:* This will reduce anticipated air pollution when the settlement is congested.
- v. *Public transport:* The last ranked proposed service is the introduction of a public bus route across the settlement.

What do residents think this neighbourhood will look like in the future?

It is thought that the Madukani locality will have more people in the future than is the case at the moment. It is anticipated that the farms will eventually give way to house construction, There is also a big possibility that mud and pole houses will give way to permanent houses. Gentrification of the settlement due its location will result also in displacement of some of the low income and indigenous people with middle income residents and commercial properties moving in. More businesses will also be opened in the settlement to serve the growing population.

There are also high expectations on the establishment of education facilities in view of the low level education which children in the community are facing at the moment. Most of the inhabitants have only attained primary education. Other respondents assumed fast development would be possible if and only if there was improvement of the main roads and assignment of public transport routes across the settlement. They assumed that this will reduce transport costs, and enable them to generate more profits and increase production.

Muriet Sub-Ward, Terrat Ward, Arusha

Introduction

Muriet sub-ward is one of the nineteen sub-wards in Terrat ward located about eight or nine kilometres from the Arusha city centre. It is located north of the ward. It is the second highly developed sub-ward after Madukani sub-ward. The sub-ward is bordered by Sokoni 1 ward on the north and east, Madukani on the west, and Mlimani sub-ward on the south. The sub-ward has a total area of 131 ha.

The ward has experienced a rapid population increase as follows. In 1988 the population was 3,755, 7,997 people in 2002 and 21,790 in 2012. The sub-ward grew by 113 percent at a growth rate of 5.4 percent between the years 1988 and 2002. It also increased its population by 172 percent at a growth rate of 10.54 percent between 2002 and 2012. According to the 2012 population census, the ward has the highest population growth than any other ward in the city. The 2012 population census reveals that Muriet sub ward had a population of 7,501.

When was this neighbourhood established and how?

Muriet settlement was established in 1948 by indigenous *Maasai* people, who cleared the area and built their *bomas*¹. In 1974, the Tanzania Police Field Force Unit (FFU) camp was shifted to the area from *Oljoro*². From that time onwards, there was a steady development of the area. The area is endowed with soda lime. In the past, livestock keepers brought their animals to leak the salt. Previously, Muriet was famously known as "*kambi ya chumvi*"³. In 2011, Muriet settlement became part of Arusha City.

In 1996 the Arusha District Council proposed to establish a market in Terrat at a spot which is currently known as *Kwa Morombo*. It was in 1998 when market space was demarcated. The *Kwa Mrombo* market was inactive until 2000, when it became operational. The *Kwa Mrombo* market operations led to a large influx of people into both Madukani and Muriet sub-wards. Apart from livestock, the market sells different commodities. These factors have attracted people into the area to settle and conduct business.

¹ *boma* is a name given to the whole compound of a Maasai Manyatta. Several houses are all built and surrounded by a ring fence made of pieces of drywood.

² *oljoro* is a name of a place in Arusha District whose camp was partly shifted to Arusha City

³ *kambi ya chumvi* is a Swahili word which means 'salt camp'



Many people move to Terrat to build their own house on farmland while others are renting houses under constructing waiting for their own opportunity to become house owners

How has the built environment changed over time?

Muriyet sub ward was initially covered by natural vegetation, mainly grassland and wooded grasslands. Its main land use was grazing by the Maasai people. Over period, the area has changed from natural vegetation into farms and buildings. Three factors have influenced the change of built environment in the area. These factors are the shifting of FFU camp from Oljoro to Terrat, its designation as a market cattle market in 1996 and operationalization of the cattle market in 2000. These developments led people from Arusha and other parts of the country to start buying land from the Maasai and developing it initially as farms then houses at later stages. The new comers introduced new forms of modern houses that were constructed with cement blocks and roofed with corrugated iron sheets. Like many other areas in the city, Muriyet sub ward is an unplanned area but somehow much organized if compared to Madukani and Olmatejo sub-wards.

Muriet Land cover changes (2005 - 2013)

Land cover	Coverage (2005)		Coverage (2013)	
	Size (Ha)	Coverage (%)	Size (Ha)	Coverage (%)
Scattered built up area	28	21.4	104	79.4
Unbuilt area (Power line)	1	0.8	1	0.8
Farm	102	77.9	26	19.8

Source: fieldwork data, April 2014

Muriet Land use changes (2005 - 2013)

Land use	Coverage (2005)		Coverage (2013)	
	Size (Ha)	Coverage (%)	Size (Ha)	Coverage (%)
Residential	28	21.4	102	78.1
Power line reserve area	1	0.8	1.0	0.8
Commercial	-	-	1.6	10.8
Small farming/gardening	102	77.9	25.7	19.6

Source: fieldwork data, April 2014

How do people access land in this neighbourhood?

Land is accessed through an informal land transaction system. About 40 years ago, new comers used to buy land directly from landowners at very low prices. The land owners had no incentives for disposing the land and buyers had to beg to initiate the transaction. In recent years, the game has changed. Land owners are disposing off their land through the informal land market via informal estate agents who are commonly well known as 'dalalis'⁴. The dalali get their payment once the property/land has been sold by imposing an extra cost on top of the real price.

This system at times leads to conflicts between buyers and landowners due to the following factors.

- the buyer purchase land without the knowledge of the people living adjacent to the sold land , who would have been potential witnesses.
- the buyer sometimes purchases land in absence of the owner,
- the buyer trusts the seller and leaves the land for quite some time before developing it, then it is resold by the seller.
- the buyer purchases land without involving the the local leaders,

⁴ *Dalali* is a Swahili word for a middleman who does the task of facilitating and disseminating information on property/land available in the market. .

- the buyer completes the transaction at the public notary office, whose officials do not know the location of the land/property being transacted.

To minimize the land conflicts, a new system has been put in place. This system involves local government authorities.

Housing and Services

What are the main housing types in this neighbourhood (e.g. rental/home owners)?

What is their condition?

More than 90 percent of the houses are built using cement, sand bricks and corrugated iron sheets, while 5 percent have been built with mud and poles and the rest with burnt bricks and corrugated iron sheets. The houses are normally built stage by stage over a period of time. Most of the houses in Muriet are detached single storey buildings that are designed to accommodate single families. About 95 percent of all buildings are used for residential purposes, mainly by the house owners themselves. A number of buildings are occupied although they are not completed. The rest of buildings, especially those located along the main roads, are used for commercial activities. Houses that are built for renting purposes are U- or straight line shaped, with separate single and two bedrooms. In spite of the fact that the Muriet sub ward is an unplanned settlement, there is provision of space for access roads to most of the locations. The access roads do not have uniform width: Some are very narrow while others have 8 metres' width which is in line with physical planning standards. Unlike some of the unplanned settlements in the city, Muriet has medium density housing.

How do residents in this neighbourhood access the following services?

(a) Water

Muriet sub ward get its water from four main sources: the Arusha Urban Water Supply and Sewerage Authority (ARUWASA), private shallow wells, stand pipes that were funded through OLMULO water project and water vendors. Very few people are connected to the ARUWASA water supply system due to the fact that the main water pipe is far from the settlement, and a customer has to bear all the costs for water connection for that distance. Generally, the water supplied by ARUWASA is usually clean and safe but not reliable in terms of constant availability. Water drawn from privately owned wells is not treated and salty at times, thus being neither safe nor clean. The OLMULO water project enabled the community to get more water from wells, which is distributed through public stand pipes. Families that do not have wells buy water from private well owners or from water vendors. The price for a 20litre bucket ranges from TZS 50/= to TZS 200/=. During the dry season, when water rationing is prevalent, the price shoots up to TZS 500 per 20-litre container.



Households in Muriet are spending much time on collecting water, some even make it a livelihood to collect and sell water

(b)Toilets/sanitation

Three types of toilets are found in the settlement. These are pit latrines, improved pit latrines and flush toilets. The majority of households use pit latrines and improved pit latrines. To prevent the collapse of pit walls, many local residents use used tires. This is done by piling used tires from the bottom upwards. This type of pit latrine construction is considered to be cheap and long lasting.

(c)Electricity

The majority of houses do not have power supply while only between 10 to 15 percent of the homes are connected to the national grid. Those who are supplied with power complain of blackouts and low power voltage.

Houses that are not connected to the national grid use other sources of power including solar energy and kerosene lamps. TANESCO, the national power utility firm, has now initiated a project that will connect all houses in the sub-ward. So far, little has been done on the ground.

(d) Roads/local/public transport?

All roads are poor and inadequate, save for the two main roads that form the northern and eastern boundary of the settlement. These two roads are paved with gravel and are regularly

maintained. The remaining roads are covered with unconsolidated earth material. Roads are passable with difficulty during the rainy seasons due to lack of lined storm water drainage system. The settlement has two main types of public transport; the minibuses popularly known as *daladala* and the motorcycles famously known as *bodaboda*. The mini buses only serve limited area of the sub ward, while the motorcycles ply all over the area.

(e) Mobile phones

Most of the people in the locality own mobile phones that are used both for communication and money transfer. In very rare cases, you may find a problem with the communication signals. Once this happens, then the problem is for the whole city or country, and the service providers normally apologize.

Which service needs improvements the most? What are the needed improvements? Are there any services this neighbourhood needs but does not have at the moment?

The two key services in need for improvement as deduced from interviews and group discussions are primary school and health centre services, which are currently unavailable. The need for construction of a primary school is critical due to the need to reduce the walking distance of pupils to and from school. Similarly, the local communities access health services from other parts of the city. The other services needing improvement are water supply and local roads. Only a few households are connected to the city water supply system or draw water from private wells, the latter being neither inadequate throughout the year and neither safe nor clean. Due to poor maintenance, most of the internal roads are flooded or not passable during the rainy season.

Are people moving to/from the neighbourhood because the services are good/poor?

In spite of poor provision of public services, still many people are moving into the area simply because houses, availability of land for building and public transport to and from other city locations are available. Also there are some of those interviewed said that they were very much attracted to settle in the area after opening up of the market at kwa Morombo as they saw opportunity of doing business there. As already indicated, the majority of people living in the area are owner-occupiers of the houses. They have moved into the area in order to escape higher housing rent in areas which enjoy better social services. It can be generalized that people move into the area so as to own homes, escape higher rent charged in the more spacious neighbourhoods where all basic services are available in comparatively better state like Sakina .

Livelihood and Mobility

What type of persons live in this neighborhood? Has this changed over time? Where are people coming from/moving to? Why?

The majority of dwellers come from the northern regions of Tanzania, which are Arusha, Kilimanjaro, Manyara and Tanga. This also manifests their ethnic composition, which is dominated by people hailing from the same zone led by the Chagga. Other regions of origin of the residents are Dodoma, Tabora and Singida. The Maasai who were once the majority are now outnumbered by the migrants. Most of the dwellers are medium and low income earners. The Maasai are continuously being pushed away from their original areas to other parts of the country where they seek to secure more space for their extensive livestock keeping. A member of the focus group who came into Muriet in the 1950s said:

"While in planned areas the fixed sizes of land parcels are sold at set prices, which are high, people come into Muriet to buy pieces of land they can afford at cheaper prices because the transactions are informal...."

How do people living in this neighbourhood make their money? Has this changed over time? How and why?

Residents of the area make money through both formal and informal activities; which are undertaken within and outside the settlement. The majority of people work in the informal sector, are self-employed, and do their work outside the sub-ward. The livelihood activities of people living in the area can be divided into service provision, building and construction and urban agriculture. The following are the main sub areas within each the three main groups of livelihood activities. In service provision sector the sub sectors are education, hotels and guest houses, food supply, transportation, tourism, water vending and retail activities. Sub sectors in building construction are carpentry and masonry works, welding, building materials including, brick making, stone and sand mining. The third category of urban farming includes production of different types of vegetation and poultry. Based on livelihood activities, the area can be divided into two main parts; the northern part which is dominated by commercial activities, especially along the main road, while the middle and southern parts are predominantly residential, with scattered retail shops and small farms.

Two to three decades ago when the area was predominantly occupied by the Maasai, the main livestock activity was livestock keeping, which changed to farming and current livelihood activities.

How does service availability affect income-generating activities in this neighborhood?

Apart from the existence of in-house services such as electricity and water stand pipes, other social services are available outside the settlement. Extra time and money is spent accessing them. This reduces the amount of working hours, which an individual would otherwise have used to raise his income. This is true because most of the residents are self-employed. Lack of most key social services within the area increases the cost for accessing them, especially the wholesale shops and markets, education and health facilities. Availability of services impacts on income generating activities in the settlement. A focus group discussion gave this example:

"...during the dry season, water accessibility becomes very difficult. You find individuals using a lot of time to look for water rather than engage in income generating activities. We also buy water at high prices that are above our daily or monthly budgets."

Reliability of electricity supply is one of the major concerns of the greater number of respondents. This is what two individuals narrated:

"Fluctuating power voltage affects people's business since we use electronic devices such as refrigerators, computers, radio and television sets. Most of these items are destroyed due to sudden changes of voltage. The generation of our income is thus disturbed (says a respondent who is supplied with electricity by TANESCO)."

"...lack of electricity limits the business operations in this settlement. You see businesses operating only in parts of the settlement that are connected to electricity supply.(response from a shopkeeper at a premise which has no electricity)."

How does the urban transport available to residents affect their income generating activities?

As stated earlier, the settlement is served by two main modes of public transport: minibuses and motorcycles. The minibuses serve only a limited area of the neighbourhood, while motorcycles cover a much wider area. Minibuses stop operating at around 2100 hours, forcing people to use motorcycles, which are rather expensive. Due to the fact that it is not easy to transport goods through the minibuses, traders are forced to use motorcycles which are much more expensive. However, many people find motorcycles much more convenient, much as they are more costly, simply because public buses take much longer by making frequent stops.

How does the urban transport available affect residents' mobility within but also outside of the city (e.g. travel to rural areas)?

Poor public transport affects the mobility of the local communities due to the following factors: time wastage, high transportation costs, overcrowding in mini buses, and high exposure to traffic accidents. Time wastage occurs due to time used to reach the two roads that are served by minibuses and also the long-waiting periods. As pointed earlier, residents prefer to transport goods by motorcycles which are much more convenient, even though they are rather expensive. The minibuses are overcrowded and less comfortable. The limited number of buses operating in the area has forced the local people to use motorcycles which are, however, prone to more accidents.

Conclusion

What are the most pressing needs of this neighbourhood? If possible rank from 1 to 5 the priority for improvement of the following public services: water, sanitation, electricity, local transport and mobile phone signals

Among the listed services above that need improvement, only two of them were mentioned and the other three were not among the five mentioned services. The two mentioned services are; water and electricity, and the additional three are schools, health services and roads. Among the five services, some of them do not exist or just exist partially. They are ranked in the order of priority for improvement/establishment as follows:

- vi. *Government primary school:* this is one of the services that the community demands. They want their primary school children not to commute long distances to and from school. Land for construction of the proposed school should be acquired while the land prices are still relatively cheap. This is what a respondent stated during focus group discussions:
 - vii. *"The major reason for ranking public primary school as the first priority is due to scarcity of land. People are constantly buying land so as to build homes and make other investment.) If we will not take action early enough, we might not be able to get land for establishing this vital project. By that time, we won't find a bare piece of land at today's price. It is much easier to purchase the plots now than when the land has built structures on top already."*
- viii. *Health services:* There is no government or private health services provided in the area. Residents of this sub ward rely on dispensaries located in Kati sub-ward.
- ix. *Water supply services* are inadequate. This needs to be improved through ARUWASA water supply system or safe private wells.

- x. *Road infrastructure: This will entail upgrading both main and access roads by surfacing them with gravel and constructing storm water drainage channels. Improved road network will likely lead to improved public transport*
- xi. *Police post; the whole of Terrat ward, which is the fastest growing ward in the city, depends on a police post that is located at Mbauda area in Sombetini ward. It therefore important for a police post to be constructed not far from the sub ward.*

What do residents think this neighbourhood will look like in the future?

Muriel residents have higher expectations on how their settlement will look like in the future. A respondent said: *"In ten years' time, this settlement will be a small town because it expands fast and there is rapid population growth. But this will be possible if pressing needs which are non-existent at the moment will become available. If we won't get services like schools, health facilities and police stations, there will be a rise illiteracy, mortality and criminal offence rates."*

The anticipated population increase, expansion of businesses and built space make it highly possible for that the ward will be subdivided into two wards in the coming future.

Olmatejo Sub-ward, Ngarenaro Ward, Arusha

Introduction

The Olmatejo sub ward settlement is one the seven sub-wards of Ngarenaro ward. It is located about three km from the Arusha city centre along Arusha-Babati Road. It is bordered by Elerai ward on the north and west, Ngarenaro_darajani sub-ward on the east, and Unga Ltd ward on the south. It is an unplanned area, with a total area of about 11.17 hectares, making it the third smallest sub-ward within Ngarenaro. Based on the 2012 census, the population of the ward now stands at 12,382 people, compared with 15,729 people in 2002. Based on population data of 2002 and 20012, it can be concluded that Ngarenaro ward has witnessed an overall decline in its population. Olmatejo had a population of 2,894 inhabitants in 2002.

When was this neighborhood established and how?

The word 'Olmatejo' is a Maasai⁵ word, meaning a plant that has itching properties when in contact with the skin. In the past, the area had many such wild plants. Olmatejo sub-ward is one of the oldest areas in Arusha City has existed since the formation of Arusha town. Just before the mid-1960s, cultivation and livestock keeping were the main economic activities in the area. This situation changed in mid-sixties, when there was an influx of people from the neighboring sub ward of NHC, due to a major housing development project undertaken by the National Housing Corporation. This development affected the physical development of Olmatejo because it created pressure on land and housing for the displaced people. Currently, the sub ward is densely populated and congested with buildings accommodating a diverse ethnic composition. It has more tenants than house owners and acts as a centre for receiving new comers.

How has the built environment changed over time?

Even though it can be said that the built environment has continuously changed since Arusha Town was established in 1890s, three separate periods can be used to describe such changes. The periods are: prior to and just after independence (1890s to early 1960s), immediately after independence (1960s to early 1980s); and the Structural Adjustment Programme (SAP) period to date (mid 1980s to date). Before and even soon after independence, the area was

⁵ *Maasai* is a tribe of the local inhabitants of Arusha

sparsely populated. It had some farms and scattered *manyatta*⁶ houses. The houses were in family groups famously known as Maasai *boma*⁷.

After independence, establishment of the National Housing Corporation (NHC) and other occurrences changed the pace of population and physical development of the area. The built environment of Olmatejo experienced a rapid change as result of the influx of people who came to seek land after being displaced from the NHC sub-ward, where the government through its agency, the NHC, acquired land for real estate development. Until then, land was either bought at minimal cost or given freely to those who were in need.

In the past, the traditional houses were built with mud and wooden poles and roofed with thatched traditional material. The arrival of new comers led to changes in house design and construction. The new houses were constructed using cement and sand blocks and roofed with iron sheets. The new construction style led to gradual disappearance of the traditional houses. Olmatejo is now very densely populated as well as overcrowded with houses.

Olmatejo Table Land cover changes (2005 - 2013)

Land cover type	Coverage (2005)		Coverage (2014)	
	Coverage (Ha)	Coverage (%)	Coverage (Ha)	Coverage (%)
Built-up area and damp	10.15	91.0	11.14	100
Small farming	1.0	8.9	-	-

Source: fieldwork data, April 2014

Olmatejo Land use changes (2005 - 2013)

Land use	Coverage (2005)		Coverage (2013)	
	Size (Ha)	Coverage (%)	Size (Ha)	Coverage (%)
Residential	9.5	85	9.4	84.3
Commercial	0.3	2.7	1.6	14.2
Damp	0.2	1.8	-	-
Industrial	0.2	1.3	0.2	1.3
Small farming/gardening	1	9	-	-

Source: fieldwork data, April 2014

How do people access land in this neighbourhood?

⁶ *Manyatta* is a typical Maasai traditional house built of wooden poles and mud mixed with cow dung and roofed with the same.

⁷ *Boma* is the name of the locally made cow shade, which was made of wood that protects cattle from moving out.

Access to land has been changing over time. In the past, land was acquired informally at low price and the transaction involved only the buyer and land owner. In recent years, individuals and households still access land through the informal purchasing system, which involves a number of key stakeholders. The following are the main steps that are used in accessing land:

- Searching for land and the land owner through 'informal estate agents' famously called *dalalis*.
- Negotiating the price with the land owner.
- Documenting the agreement of sale to the public notary and paying the agreed price.
- Approximately 90 percent of the transactions do not involve the city council although *Mtaa*⁸ leadership is involved.
- Paying the transaction fees to both the informal estate agent and the local government authorities.

A member of the focus group discussion stated as follows:

"...in the 1960s and years back, a person would seek a piece of land and get it for free from a native just for building a small house, but would not get farming land. . Land was not sold in those times. It was inherited and divided among family members. Buying and selling of land is a recent feature."

The cost of buying land has changed over time. In the early 1990s, when there was ample but undeveloped land, a plot of land suitable for construction of a ten-room house was sold for about 100,000 Tanzanian shillings. In recent years, land prices have shot up, especially along the main roads, going up to 30 million shillings per similar piece. Currently, there is no vacant land in the area, those in need for land have to buy a building, demolish it and construct a new structure.

This is what the focus group, which discussed the prevailing prices of land (including the property above it), said:

"...within the settlement, the price for a single plot ranges from TZS 20 to 30 million. This price is for acquiring a piece of land on which stands a mud and pole house containing about ten rooms. The property along the main road has been sold to domestic investors from the city. These are expanding their investments at prices ranging from TZS 60 to 100 million per piece. The price varies depending on the size of land."

⁸ *Mtaa* is a Swahili word which means 'sub-ward'. The sub-ward is the lowest level of governance in the local government in the URT



Olmatejo is a planned neighbourhood that houses poor households, mostly new migrants who after short time move to other wards in Arusha

**What are the main housing types in this neighbourhood (e.g. rental/home owners)?
What condition are they in?**

Many houses are single storey buildings built with mud and poles, and roofed with corrugated iron sheets. These were constructed many years ago. Only a few houses are built with sand and cement bricks. Many buildings are old and dilapidated. In contrast, the newly constructed block houses are in good condition.

The sub-ward is more or less fully covered with houses. There is very little space left for people to move freely around. The buildings in the sub wards are used for a number of activities including, residential and commercial. Most of the residences are occupied by tenants due to the fact that many buildings are designed to accommodate tenants. Tenancy is one of the main sources of income in the area and the renting costs are diverse, depending on the type of house and the services available in that particular house. Commercial uses are found along the three main access roads that are inside the settlement and also along the Arusha-Babati Road. Retail shops are dominant in the area, plus small cafes and small scale

industries/workshops which operate along the Arusha-Babati Road. Moreover, local brew is another economic generating activity undertaken inside some homes and bars.



Despite the original planning of the neighbourhood, the area is poorly serviced

How do residents in this neighbourhood access the following services

(a) Water?

The Arusha urban water supply and sewerage authority (ARUWASA) is the main water supplier in the area. Households access water services through direct connections, public distribution points or private tap water sellers. The private water tapes were initially public distribution points. These were transferred to private sellers in order to improve the provision of water services in the area. There are also some few individuals who are using water from Ngarenaro River. Water supply in the area is to a large extent sufficient, save for the dry season when water rationing is the norm.

(b) Toilets/sanitation

Residents of the area depend on onsite sanitary systems. The main types of sanitation in the area are improved pit latrines; pour flush latrines, ordinary pit latrines and modern flush toilets. The majority of residents use both ordinary and improved pit latrines. However, some of the houses do not have any toilets at all. Some of toilets are quite in bad shape. They are not hygienic at all and are made of old tins, sacks and, at times, used paper boxes. A few toilets have no roofs. During the official interview, the *Mtaa* chairperson discussed challenges facing the *Mtaa* as far as toilets are concerned. He said:

"This service is very poor. We have a big challenge with liquid waste due to the fact that we are not connected to public sewer; while there is no vacant land in the neighbourhood. We, as local government authorities, face a lot of challenges whenever cases are brought by tenants complaining about lack of toilets or their poor conditions. This is due to the fact that even if we decide to tell the landlords to construct new toilets, the solution is hardly applicable as there is no vacant land. The only option the landlords have is changing the use of rooms from renting to toilets. Only a few of them accept this option. The majority disagree because room renting is usually their only source of income."

Few individuals in the settlement drain their toilets using cesspit emptier. The majority tend to abandon the filled up hole and excavate another. On the other hand, some individuals empty their latrines during the rainy season and direct the waste into the water channels, which include River Ngarenaro. This has been the common practice of individuals who either cannot afford pit emptying costs or people living in areas where cesspit emptying trucks cannot reach.

(c) Electricity?

Electricity is supplied by TANESCO, but not all the houses are connected with power due to their inability to foot connection costs. The residents, especially those who have no power connection, did request TANESCO to reduce the initial connection costs. The existing power network runs along the unplanned nature of the settlement. Electricity is mainly used for lightning, household activities, commercial business and small-scale industries.

Other sources of light are kerosene (Western kerosene lamps), candles, and locally made kerosene lamp known as *koroboi* and battery lamps. People whose homes have no electricity charge their phones at their neighbour's houses and also at shops that provide such services.

(d) Local transport

The sub ward is served with three types of public transport. The mini buses that operate on a route that passes through the southern border, and the motorcycles, commonly called *bodaboda*. It is unsafe to use motorcycles or walk unsafe during night. (What is the third method of transport?). On the whole, it can be generalized that local transport is still inadequate.

(e) Mobile phone?

Generally, residents in the settlement face no challenge in relation to this service. (No detailed information available)

(f) Roads/transport?

Roads in the neighbourhood are both poor and inadequate. The fact that the area is an unplanned settlement implies that its road network was neither designed nor properly constructed. A number of existing roads are in fact previous farm demarcations.

Which service needs improving the most? What improvements are needed? Are there any services this neighbourhood needs but does not have at the moment?

The most pressing service that needs to be addressed is the improvement of access roads. Both the residents and *Mtaa* officials point out that improvement of access roads will solve a number of nagging problems. These include: sub-standard liquid waste and storm water management, theft and poor security, low land value, poor profits for those who sell or invest, need for easier accessibility; and inability of refuse collection vehicles to reach all the areas.

Elements that need improvement include road width and alignment, road surface, storm water channels and street lights. All these improvements will lead to displacement of people; hence the need for compensation. Compensation is so far become a big constraint to the improvement of roads and accessibility within the settlement due to inadequate government funds available for the purpose.

Other services which are in dire need by residents are construction of sewerage system and a health centre, and solid waste clearing. All these are currently not available. Sewerage system is needed because there is scarce space for construction of pit latrines. A medical centre is needed because the one located adjacent to the area is always overcrowded. Solid waste collection needs to be improved because there is lack of sufficient collection points, a factor which leads to haphazard dumping of waste.

Are people moving to/from the neighbourhood because the services are good/poor?

Considering the history of the settlement and its current situation, people who settle in the settlement are those who are tenants; and have connection with ones who are already living in the settlement. All the interviewed tenants were not satisfied with quality of services they were provided; thus planned to relocate to other places, including to their own houses. Poor accessibility, poor houses, poor sanitation and insecurity hinder investors to move into the settlement. Landlords are also unable to steadily maintain their tenants. Newly arriving tenants consider Olmatejo as a stepping point before transiting to other favourable areas.

With these poor services, the income of individuals who are dependent on activities undertaken within the settlement is limited as the only customers are those living within the settlement.

Livelihood and mobility

What type of person lives in this neighborhood? Has this changed over time? Where are people coming from/moving to? Why?

People of different tribes coming from various locations in the country are found here. The majority of these have one thing in common: their income. They are all low-medium and low income earners. By tribe, there are some Maasai natives who are now known as the Waarusha. You also have the Iraq, Mbulu, Rangi, Nyaturu, Nyiramba and some few Sambiaa, Digo and Chagga tribesmen. As said earlier, the majority of Olmatejo residents are tenants. They fall into the above-stated tribal categories. The majority of Waarusha are property owners.

Up to the 1980s, this place was mostly dominated by the Waarusha because even after the displacement of people from National Housing sub ward, the majority of the accommodated displaced people were also the Waarusha who were given land by landowners of Olmatejo. This demographic landscape started to change when the Waarusha started selling their farmlands to migrants of various tribes. These came from different locations such as Kondo, Singida, Dodoma, Babati and Kilimanjaro in the 1990s. Others came from Kilimanjaro and Tanga regions etc. looking for employment and other economic opportunities. There are those who came to visit their relatives then decided to stay for good. Upon reaching the settlement, especially those who are tenants, they always struggle to find the way out into other more lucrative wards and sub-wards in Arusha City. Despite the poor infrastructure and services available in the settlement, people have continually stayed on due to the cheap rental cost in the area and closeness of the location to the city centre, where economic opportunities are prevalent.

How do people living in this neighbourhood make their money? Has this changed over time? How and why?

Most of the people engage in small businesses which include food vending. These are commonly known as (*mama lishe or mama ntilie*). *This particular business* is mostly done by women. Other business activities in the location are fruit and vegetable selling in kiosks, local brewing, retail shops, local bars, small restaurants and sale of second hand clothes. The majority of women work as housemaids in different parts of Arusha City. Most of the youth work as casual laborers in factories such as A to Z Company, which operates in Kisongo area and also in the Unga Limited industrial area.. We also have some native residents who keep their livestock within the area. These now practice zero grazing due to limited space available.

Livelihood and income generating activities have changed over time. The settlement was known for cultivation of different crops like banana, vegetables, tomatoes and supply of abundant animal products. These were the only livelihood means for the natives. Now cultivation is no longer undertaken in the settlement. Very few individuals own farms either in the outskirts of the city or other districts. It is the urban livelihood strategies which are

diverse and predominant. Tenancy contributes a lot of revenue to the landlords. There are very few houses whose owners have not availed them forrenting.

How does service availability affect income-generating activities in this neighbourhood?

Due to lack of key services in the settlement, acquiring such needs far from the area consumes time that would have been used productively to generate additional income. The residents consider lack of crucial services to have added additional costs to their expenditure. Some of the services that are not available, which residents considered to be important are: medication centre, reliable local transport, and water--especially during the dryseason.

How does the urban transport available to residents affect their income generating activities?

As highlighted earlier, the settlement is located close to the city centre, thus the people have alternatives on the type of urban transport they wish to use. The only affordable and convenience means of transport is public transport (PT), using buses and non-motorized transport (NMT) and walking. Both modes affect the income generating activities based on their availability, safety and speed. Walking takes much time but does not allow one to carry heavy luggage as the buses do. The only mode of transport that can easily move residents and goods is PT. Commuting daily is the norm for those working outside the location and to those who are working within the settlement but are involved in business and direct production undertakings. On the other hand, motorcycle transport plays an essential role in transporting people and goods on one hand as well as generating income to the motorcycle owners on the other. Limited income and PT, especially during night time, affects residents' movements, hence their income generating activities. Security is another factor that limits income generating activities that are carried out within the settlement, especially at night.

How does the urban transport available to residents affect their mobility within and outside of the city (e.g. travel to ruralareas)?

The Olmatejo residents' mobility within the city is quite high, but is only limited to the income of the individuals. The nature of the income generating activities makes the subsequent income insufficient to provide the means either to move more frequently within and outside the city or expand their livelihood opportunities. The only urban transport route used by PT passes along the southern part of the settlement, availing a connection to other places and routes. The PT route has been in operational for more than 20 years. The route is paved and accessible all year round.

Conclusion

What are the most pressing needs of this neighbourhood? If possible rank from 1 to 5 the priority for improvement of the following public services: water, sanitation, electricity, local transport, and mobile phone signals

During the focus group discussion, observation, household and official interviews, it was noted that the most pressing needs in Olmatejo settlement are as follows: Roads, sanitation, health facility, primary school, electricity and watersupply.

- xii. Access roads: the settlement has three major unplanned access roads with varying width. They are both inadequate and in poor condition.
- xiii. Sanitation facilities, especially the toilets, are very poor condition. Calls have been made for immediate actions to be taken by both the government and the community itself.
- xiv. Dispensary: Currently, people have to travel to the neighbouring ward (Levolosi) to acquire medical service. The dispensary also caters for other people from other places in the city. Having a dispensary in the settlement would reduce the pressure on the Levolosi Heath Centre.
- xv. Primary School: the existing primary school is already congested, hence a new school ought to be built so as to cater for the growing need for primary education.
- xvi. Electricity: Despite the availability presence of electricity in the settlement, only less than 50 percent of residents are connected with power supply; while the majority low income earners are not. Any reduction in the service line connection cost will provide the opportunity for low income people to access electricity.
- xvii. Water supply: Improvements should be made so that water is also available during the dry season as is the case with the wet season.

What do residents think this neighbourhood will look like in the future?

The Olmatejo settlement is currently surrounded by more developed localities, making it look like an island. The city centre is expanding and will eventually reach Olmatejo in the near future (?). It is no doubt that in ten years to come, this settlement will be quite different from the way it appears at the moment. This has started happening in areas located along the Arusha-Babati Road, where investors are developing high rise buildings, hence altering the deteriorated built environment; and displacing the local inhabitants to other areas in the city, especially to the periphery and neighbouring districts.

Likewise, the government has shown interest in improving major access roads within the settlement. This intention is yet to be realized because the high cost of compensation is a matter of concern. Nevertheless, improvisation of the major access roads will eventually stimulate further property transactions and bring about a change of land use from residential to commercial. This will, however, result into further displacement of local inhabitants as investors will be able to make attractive offers to the land/property owners. The changes shall alter both the landscape and structure from old fashioned Swahili houses and transform them.

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Draft report on Kigali City and Muzanti Town:
City dynamics: mobility and livelihoods of urban residents
&
Urban residents' access to water, sanitation, electricity and transport, and
acceptability of services.

1. Introduction

As stated in the RurbanAfrica project, " The overall objective of the African Rural-City Connections (RurbanAfrica) project is to explore the connections between rural transformations, mobility, and urbanization processes and analyze how these contribute to an understanding of the scale, nature and location of poverty in sub-Saharan Africa. The RurbanAfrica project will advance the research agenda on rural-city connections in sub-Saharan Africa by addressing a range of crucial components: agricultural transformations, rural livelihoods, city dynamics, and access to services in cities. In this respect the project will challenge a number of generally accepted 'truths' about rural and city development, and the importance and implication of migration in shaping these. It will thereby question the overall negative interpretations of the economic role of rural-urban mobility and migration in sub-Saharan Africa and generate new insights into the relationship between rural-city connections and poverty dynamics".

Work Package 3 and 4 focuses on providing a comprehensive understanding of 'City Dynamics', and access and acceptability of public services in selected urban areas. The urban dynamics is explored through the mobility patterns and urban-rural connections while the access and acceptability of services is analysed through the access to land, housing, water, sanitation and mobile telephone.

This report is based on extensive data collected in 6 sites in the city of Kigali and 3 in Musanze town in August 2015. The report is divided into 10 main sections. The first section focuses on the methodology, and the remaining sections presents in details findings for each research sites.

2. Methodology

2.1 Selection of cities and villages

In Rwanda, two cities were selected as fieldwork sites: the largest city, city of Kigali, and a rapidly growing intermediate-sized town Musanze, formerly called Ruhengeri. The selection of two different sites was motivated by the fact that it is important to understand the dynamics and access to services as their acceptability by the population as well in the largest city but also in the secondary cities, Musanze being one of the six secondary cities¹. Carrying out a similar study in both urban areas, using the same methodology allows better understanding of urban dynamics and access to services. Indeed, the capital city is more attractive since more equipped than secondary cities but it may experience different challenges as the ones observed in secondary cities. Six villages in the city of Kigali and three villages in Musanze town were selected for field data collection (see table 1).

Kigali, is the capital city of Rwanda. It is located in the centre of the country. Kigali was founded in 1907 by Richard Kandt under German colonial rule. It remained a small administrative and business centre up to 1962 when it became the capital. The city has undergone several enlargements since. Currently the total surface of city of Kigali is of 730 km² but only 70% is urbanised. Initially the city was totally located on a hilly site, but with successive enlargements, the city has spread over flat terrain in the North and the East parts. Kigali accommodates 1,135,428 inhabitants (NISR, 2012), and this is 48% of the total urban population of Rwanda. Kigali has a growth rate of 9%, while the national average urban growth is 4.5% (MININFRA, 2013). The city has experienced rapid growth after 1994 and the majority of its population are in-migrants from different parts of the country and from outside. According to Rwanda Vision 2020, Kigali is expected to become the hub of the central Africa, and to accommodate more than 3,000,000 persons by 2020 (Vision 2020, 2000). The city is made of three districts: *Gasabo, Kicukiro and Nyarugenge*.

Musanze town is located in Musanze district, Northern Province. It accommodates the headquarters of Musanze district. Musanze is the gateway town to Volcanoes National Park which hosts the Mountain Gorillas which attracts many tourists from all over the world. It is connected with Uganda at 25.5 km in the north-east. The town is crossed by the paved road *Kigali-Rubavu*, *Rubavu* being contiguous with the city of *Goma* in the Democratic Republic of Congo. Musanze town is built on a flat site with some steep terrain especially towards the South. Musanze was created in 1903 as a German colonial military post (Sirven, 1985). The total surface area of Musanze town covers 61.97 Km². In 2012, the town accommodated 102,082 inhabitants (NISR, 2012). As the city of Kigali, Musanze town has experienced high growth after 1994 when thousands of returnees settled in the town but also many indigenous joined the

¹ Six towns are classified as secondary cities. These are *Musanze, Muhanga, Rubavu, Huye, Rusizi* and *Nyagatare*. In the *Urbanization and Rural Settlement Sector Strategic Plan 2012/13-17/18*, those towns are expected to receive more public and private investment to enable to become development regional poles.

town for search of security. Musanze is the second largest city of the country and is one of the six secondary cities that are to be developed in coming years (MININFRA, 2013).

Table 1: Villages studied in the city of Kigali and Musanze town

City/ Town	Village ²	History	Location	Income level	Rate of population growth
Kigali	<i>Iwacu</i>	Old informal settlement early 1960s, highly densely populated	Central	Low-income	The population decreases since the area is expected to be redeveloped in near years and a portion of the village has been already cleared down
	<i>Kibiraro I</i>	Established 2000s, settled by people from the upper zone occupied by high -income	North	Low income	Stable population as the area is very highly populated
	<i>Kanyinya</i>	Established after 2005	Central	Low-income	Population growth since 2000 but now stable as there is no space left
	<i>Muhabura</i>	Established around 1997-1998	South-West	Low and medium	The village is settled mostly by returnees. Building plots were allocated by the city of Kigali. Population is stable
	<i>Byimana</i>	Rural settlement integrated in the city in 1990	Peripheral East	Low	Initially settled by migrants from rural areas from 1970s. Currently the area is under development
	<i>Nyakabungo</i>	The area was developed by the city of Kigali in 2007-2008 to accommodate people relocated from an informal settlement located downtown and which under redevelopment	North	Medium	The population is stable
Musanze	<i>Nyarubande</i>	Totally rural until 1997 when middle- and high income	Periphery North	Low for native/middle	Rapidly growing. Rich people are moving in

² Rwanda is divided in 4 provinces and the City of Kigali. Each province and the City of Kigali is subdivided into districts, districts are subdivided in sectors, sectors in cells and cells in villages.

		started to move in		and high income for new comers	while poor people are selling them their land and consequently moves out.
	<i>Mugara & Nduruma</i>	Was rural until 2010 but now is being settled by people evicted from Ibereshi	Peripheral South	Low-income	Very quickly growing. The occupation is occurring in haphazard manner.
	<i>Rukoro</i>	Established in the colonial period	centre	middle income and high-income	Rich people are moving in while poor people are selling them their land and consequently moves out.



Figure Kigali

1:

Villages studied in the city of

Figure 2: Villages studied in Musanze Town

2.2.Methods

In order to achieve the project's objectives, data used were collected primarily through a qualitative methodology based on Focus Group Discussion and In-depth interview. Both techniques were preferred to survey because “*focus groups can reveal a wealth of detailed information and deep insight. When well executed, a focus group creates an accepting environment that puts participants at ease allowing them to thoughtfully answer questions in their own words and add meaning to their answers*”(Guidelines for Conducting a Focus Group. Online. Available at <https://assessment.trinity.duke.edu/documents/How to Conduct a Focus Group.pdf>). In addition, “In-depth interviews are useful when you want detailed information about a person’s thoughts and behaviours or want to explore new issues in depth. [...] they offer a more complete picture of what happened in the program and why” (Boyce and Neale, 2006). The two techniques were then used in combination.

As it was very difficult to conduct ourselves the FGDs and in-depth interviews in all sites, we recruited four research assistants, trained in conducting FGDs and interviews. All of them are BSc holders in Geography, and therefore have basic knowledge of such methods and topics under analysis. Exploratory visit had been conducted in June 2014 but due to administrative difficulties to access research funds, FGDs and in-depth interviews were conducted from 3rd to 31st August 2015. In field data collection, we were helped by community gatekeepers who were mostly village leader, but they did not participate neither in FGDs nor interviews. All people who participated in FGDs and interview were ground population of both sexes and without any administrative responsibility. All of them were consenting, no coercion was exerted over them.

In all sites, the FGDs and interviews were held in *Kinyarwanda*, and taped using digital recorders. Later the talks were translated in *English* and transcribed. Since this task was very demanding and time-consuming, six clerks were recruited to conduct this exercise. Those are

students in Geography department.

2.2.1. Focus group discussions

In total, 252 persons participated in FGDs. Every FGD was made of 7 persons. In each site, four FGDs were conducted: one with elder males, one with elder females, one with young males and one with young females. In total 36 FGDs were held: 24 in Kigali and 12 in Musanze. The discussion took place in various places: classrooms, cell and sector meeting rooms. To avoid bias from the discussants and interviewees, no administrative authority attended the FGD or the in-depth interview. Every participant had opportunity to express his/her view freely as the aim was to explore the topics under discussion from members' perspectives. There were consensus on some questions but for others, responses varied from individual to another. In average, one FGD lasted for 75 minutes. The FGDs were centred on the description of built environment/land, mobility/livelihood, services and future plans while the in-depth aimed at collecting individual appreciation on the same items.

2.2.2. In-depth interviews

In-depth interviews were conducted with 180 male and female residents in all 9 selected villages. In each village, 20 heads of households or their representatives (usually spouses) were interviewed. The interview was held at the respondent's home. The interviews aimed at collecting individual information on the background of the village and housing quality, availability, accessibility, affordability and acceptability of public services. Information on livelihood/mobility and future plans were also captured. The in-depth interviews were conducted simultaneously after the FGDs.

2.2.3. Data processing

To make views of all participants in FGDs and in-depth interviews understandable and analysable, instead of using the traditional method that consisted of cutting different entries, categorising them by sticking responses onto separate sheet of paper labelled with broad headings, Excel software was used as it is deemed to provide more credible synthesis (Taylor-Powell & Renner, 2003). Below is the process we went through:

1. All responses have been cleaned up and stripped off non-essential words;
2. An Excel spreadsheet has been created for every FGD and individual interviewee;
3. All responses were analysed to depict idea conveyed by the respondent, and then each idea/process was assigned a code, a capital letter (A,B,C,D, etc.) in the corresponding following cell. This exercise was conducted for each response and was done by the researchers themselves.
4. Thereafter, the column of responses (with capital letters) was sorted in ascending order. With this process, it was possible to observe the most prevailing response for each group.
5. The summation of all groups enabled to have a general picture on the village

The exercise was conducted for all FGDs and in-depth interviews. Such counts allowed to write the report highlighting the main findings.

3. City of Kigali site reports

In the city of Kigali, the study was conducted in the following six villages: *Byimana*, *Iwacu*, *Kanyinya*, *Kibiraro I*, *Muhabura* and *Nyakabungo*. As already mentioned, each village has its particularities in terms of city dynamics, services availability and acceptability as well, that will be developed in the following specific sections.

3.2. *Byimana* village

3.2.1. Background

"I was born in this village. According to what I heard from my parents, this areas was wooded. People were fearing to settle in this place, but with development, from 1960s, things have changed gradually. When I started primary school in 1969, a great part of this village was still covered by a natural forest. The village was named Byimana (place of God) for its good agricultural productivity and safety. We had no clean water, we used water from stream in the valley. There was no electricity, we used firewood and paraffin lamps for lighting. Most of houses were covered with grass (especially hyparrhenia grass). But since 1975s some people started constructing houses covered with iron sheets. The number of houses covered with iron sheet increased gradually as people were getting more financial capacity but also because grass-covered houses were considered substandard by many residents. People later constructed more larger houses. Since 1998s and 2000s this village has changed, some migrants constructed more adequate houses than indigenious. In-migrants bough land at low price. By then, a big parcel of land was sold RWF³ 200,000.

In 2008 this village was developing and some of village's residents could get connected to electricity grid. In 2009 the electricity was availed to the entire village but people had to pay to have their houses connected. This was possible thanks to the good leadership. Following electricity supply, the land price has considerably increased, a building plot (20/30m) was sold 2 million of RWF, even more. In present days, a building plot costs between 3 million and 4 million of RWF. And with a good local leadership, we started to have some small roads in village and that has affected positively the value of land parcel. It is in that way development came and by now we are really developed." (A indigenious male interviewed, 53 years old).

Byimana village is located in Karama Cell, Kanombe Sector, Kicukiro District, near Kigali International Airport. The village develops over a hilltop. Until mid-1960s, the area was a wooded savannah with very sparse dwellings. The predominating type of house was a small thatched, with the main house and the annexe, all fenced with edge plants as this was the case in other rural parts of the country. The colonisation of the area was done by the government under

³ RWF 1000 equal around € 1.25, or \$ 1.34

the *paysannat*⁴ program in the late 1960-early 1970s. With the development of Kigali, many people also migrated to the area contributing to the increase of population density. Despite the huge flow of in-migrants, Byimana remained totally rural until early 2000s, of course some changes had occurred in terms of housing especially.

With the rapid development of the city of Kigali, and the great number of people in search of land, in-migrants were attracted to *Byimana* because it was possible to purchase land at a relatively low price. Some people who settled the area before the 1994 Genocide perpetrated against the Tutsi wanted to sell their land and settle in other parts of the city of Kigali or the country. In addition, old case returnees were given land through land sharing policy. In that framework, according its size, a family landholding could be divided into 2, 3 or more farmland. The previous owner had right to keep one land parcel while other were given to old case returnees. This resulted in a rapid increase of the resident population and the improvement of housing. In the policy of improving population's living conditions, the area was provided with public services namely electricity, water, roads, and public bus line transport. In turn, these services attracted more people, some modern houses were built in the village and *Byimana* area became semi-urban. It is important to note that the village was integrated in urban area in 2002, before the village as the large part that area was *de jure* rural though it the urban footprint was visible.

3.2.2. Land, Housing and Services

As in any developing urban area, there is always people in search of land for various purposes. The native people acquire land through inheritance. Parents used to allocate land to their male heirs. At the time of the colonisation, migrants who settled in *Byimana* under the *paysannat* program were given 2 Ha of land by the Government. Following in-migrants acquired land through purchase. Old case returnees were given land by the government through land sharing policy. As above stated, land price was still low in early 2000s. A build plot (20/30 m) was sold around RWF 200,000. Then some perspicacious people, anticipating the future land value increase purchase lager plots of land which were sold at a price 3 or 4 time higher.

The price of building plots has been increasing over time because of the continuous high demand. In 2014, the price of a building plot of 600 m² was estimated around 3.5 million (approximately \$ 5,000). Land price is influenced by the plot size and the closeness to public services. At the time of the research, Rwanda Housing Authority (RHA) was conducting expropriation as the place is planned to become a medium residential area in accordance with Kigali Conceptual Master Plan passed in 2008. Some residents were already expropriated and compensated, their houses already demolished and the previous house owners had moved to

⁴ *Paysannat* refers to the relocation programme initiated by the Government in the colonial period were peasants from highly densely populated were offered land in the regions least densely populated especially in the low land located along a line Kagitumba-Kigali-Akanyaru. The programme started early 1950s near Akanyaru valley and was closed early 1980s because there was anymore no free land to allocate to people.

other places. According to the respondents, RHA was paying around RWF 4,000 for 1m² of bare land. In this context, no individual will be interested to acquire building plots in that area since they cannot be granted construction permit, except of course property developers. Furthermore RHA will have a strict control that it would be very difficult even near impossible to erect unauthorised house, expecting to be compensated later.

In general, the type of house mostly found in *Byimana* is of low quality. Some few houses of medium quality are found along the main access road and have small frontage shops. The natives and well established migrants occupy low standard houses with wall of wood/mud⁵ or mud bricks, and shed or gable roofs covered with simple corrugated iron sheets. The number of sleeping rooms varies between two and three, the smallest houses having one room. Most of houses still have plant fences and have relatively large courtyard and gardens where banana trees and some vegetables are grown (see Photo 1). Houses are connected by narrow earth paths. No thatched house was observed in the area. Most of houses are occupied by their owners. This is understandable because of poor quality of houses and the peripheral position of the village. The influence of the city was still moderate. Currently the attractiveness of *Byimana* has decreased since the area is planned to be redeveloped by RHA. In such conditions, people are no longer interested in acquiring building plots in *Byimana* as they cannot develop them.



Photo 1: (a) One type of house in Byimana, and (b) Demolished house after the owner was expropriated by RHA

Byimana's dwellers stated that local climate has changed. This is perceived through local weather warming and more frequent unusual heavy rains. They also declared that indoor temperature has increased. Trees clearing may have contributed to the local climate change since some parcel of land are populated trees most of them being fruit trees.

⁵ The term "wood-mud" house with walls made of wood filled in with earth. The wall can be roughcasted with cement and even painted. The term was used by in the Fourth Population and Housing Census, Rwanda, 2012 census.

Water

The prevailing water supply mode in *Byimana* is the collection of water from public taps recently installed by Water and Sanitation Corporation (WASAC), the only public utility in charge of producing and supplying piped water in urban areas. So far, no private has invested in piped water production and distribution. Each tap is assigned a manager who operates it on behalf of WASAC. The cost per m³ is set according to the consumption: the higher the consumption the higher the price. The minimum cost is RWF 381 per m³. A jerrycan of water is paid RWF 10 at public tap. There are some families who have piped water in their premises, but they are all located along the main access street. Some of them their premises and sell it RWF 30 per jerrycan. Such people are not professional water vendors, they offer the service mostly to their close neighbours or when there is no water at the public taps. At public taps, children and young people have to queue for long time before getting water as shown on Photo 2.



Photo 2: Children and young people waiting to collect water from a public water tap

Piped water supply is erratic especially during the long dry season (June - October). In case of severe water shortage, a jerrycan of water is paid between RWF 300 and 400 transport included. Transporting water is a business for unskilled young people.

"It is really difficult in this dry period, we wake up early morning around 2am and we go to fetch water down there chez Mubirigi where there is a tap but water is available only up to 5am." (A women, 30 years old)

When the village is not supplied with water, people rush to the valley where they collect water for free from water ponds and stream. Then a great number of load-carriers are hired for supplying households with water. Naturally, such water is not potable and needs to be filtered or boiled before people use it but apparently very few households do it. According to the group of young females, to overcome use especially drinking non potable, the government has provided water filters to every by three close families.

Interviewees and FGDs discussants ranked regular water provision was as the first public service that needs improvement. According to them, frequent water shortage results in the raise of water price, this reduces the household's meagre income that has to be used to meet various needs. The raise of water price is very critical to the poorest households. Moreover people spend much time to collect water, time can be used for other lucrative activities. In dry season using water from water ponds and stream is detrimental to people's health. The poorest people are the most affected since they cannot afford piped water especially in the long dry season.

Power used for lighting and charging mobile phones

Byimana village is connected to the national electricity grid managed by Rwanda Electricity Group (REG). REG is the sole public utility in charge of providing electricity countrywide. There is no private who have invested in electricity distribution, private are more interested in electricity generation, and the electricity generated is injected in the national grid managed by REG. Electricity is the main source of energy used for lighting in *Byimana*. Most of households of the village have manage to get connected starting the time REG accepted the payment of connection in three instalments for households located near a low voltage line in 2010.

Before the introduction of the prepaid system, *Byimana's* residents used to pay electricity on a monthly basis as the rest of the country. On average a household used to pay between RWF 1,500 and 2,000. But now with the prepaid system, they do not how much they spend monthly for electricity because top-upping is done when needed. The prepaid system is well appreciated because everyone can the electricity according the money available and any time. Interviewees and discussants are satisfied because the staff of REG cannot disconnect their dwellings as it used to be when people had to pay on a monthly basis. Concerned people had then to go to REG office several times, pay the transport of the technician from the office to the dwelling, and sometimes to get re-connected could take some days after payment of arrears.

The village faces frequent electricity outages as other parts of the city of Kigali. When there is electricity outage, connected households torches and candles are used for lighting as do households that are not connected to the electricity grid. Consequently, *Byimana* residents wish to have a more regular electricity supply.

Electricity is also used for charging mobile phones. Near all households have at least one mobile phone. *Byimana's* residents are satisfied with the mobile phone signal coverage since they always access services provided by all the three operators (MTN, Tigo and Airtel). But they complain that their services are expensive. Mobile phone is used for mostly for calling, text messaging, transferring money, listening to radio and music and for lighting. Other uses are less frequent.

According to *Byimana's* residents, local climate change has affected service provision especially water and electricity. It has contributed to water shortage in rivers and decrease of underground water, and this has led to water shortage, irregular water supply, decrease of electricity generation and frequent electricity power outages. The population increase has also led to the intensive tree clearing in the village.

Fuel used for cooking

The most used fuel for cooking is charcoal, but some families still use firewood. A sack of charcoal costs around FRW 7,500. Those who cannot afford to pay the whole sack can buy small quantity for immediate use. Local tree clearing and adoption of urban lifestyle by the residents resulted in the shift from use of firewood to charcoal. The continuous increase of charcoal price follows the general trend observed in the country. The village is supplied by wholesalers who criss-cross the city of Kigali. No use of modern energy sources (biogas, solar energy) was reported. This is understandable since the village is settled mostly by low-income families.

Toilet/Sanitation

Access to toilet facilities is not a major problem in *Byimana* village. All households have private latrines. Most of them are pit latrines with walls and wood slab, both cemented. Some houses located along the main access road are equipped with flushing toilets. Pit latrines are not always adjoining the houses, frequently there are built apart because most of the residents of *Byimana* still have huge building plots that even comprise gardens with avocado and banana trees. No public toilets were found in the village. There is free access to toilets except the ones built in few compounds found along the main access road.

There is no problem of sanitation in *Byimana*. Waste water is thrown in gardens or on roads to reduce dust spread especially in dry season. Domestic solid waste are removed by a private company that uses a truck that takes them to *Nduba dumping site*, located around 20 Km far. The monthly subscription is RFW 1,000. Families that have huge gardens are not required to the system since they dispose solid wastes in dumping composts, and later they are used as fertiliser.

The group of young females reported that there is a sanitation club that sensitises the population on the importance of domestic hygiene, therefore all adult people do their best meet local standards of sanitation.

3.2.3. Livelihood and mobility

Byimana is mostly populated by cultivators (not really farmers), few informal workers and civil servants. Farmers settled the area before 2000 have sold parts of their land and now simple cultivators. With infrastructure development and farmland miniaturisation some of farmers them have embraced new informal jobs such construction works, petty trade, etc. The majority of the residents have low-income since they are subsistence farmers or casual workers. In recent past years, the area has attracted an increasing number of migrants from other areas of the city of Kigali searching building plots. In present days, the village is no longer attractive as it is planned for redevelopment into a medium residential housing neighbourhood.

Income generating activities

The main economic activity in the village is subsistence farming. Farming activities are done on very small pieces of land and are mostly carried out by women. They grow cassava, beans, maize, banana trees, etc. Following the planned redevelopment, they are no longer authorised to grow perennial crops except the existing banana trees. The produce is mostly for family consumption. Men have embraced other activities to diversify the household's sources of income. Unskilled males search for casual jobs in construction in the surroundings. Initially, the livelihood was based on farming activities. With time, new activities have emerged such as petty trade, hairdressing salons, renting wedding clothes, street selling food stuff for some females etc. Hairdressing salons are run by young people. Petty trade is done in small frontage shops where food stuffs and other basic products are sold. Civil servants rely on monthly salary.

"Living in this rapidly urbanising city of Kigali is not easy for everybody. In past years I used to grow all plants: cassava, maize, sorghum, beans, coffee, etc. But now this is no longer possible. Our landholding has been drastically shrunk because we sold it. Now to cope with life, I sell fresh foodstuffs near the road in the centre, there near the military barrack and the military hospital and my husband does casual works as I told you. We also lend a small house. Those are our sources of income" (A woman, 26 years old).

Services availability and income generating activities

Provision of public services has contributed to the creation of income generating activities in *Byimana* village that were not available there before. These include stationery stores, hairdressing salons, water vending, cyber cafe, bars, mobile phone services, etc. Without

electricity none of such activity could be found there. Now you can buy MTN, Tigo or Airtel airtime easily in the village. People do no longer go to *Kanombe* for hair cut.



Photo 3: Residential house adjoined with frontage small shop

As far as electricity is concerned, the frequent and unannounced blackouts interrupt business activities especially in hairdressing, cyber café, copying services, etc. Owners of such businesses often leave the village and establish their business in places with more reliable electricity supply. It is not worthy for them to acquire generator because of low demand.

Urban transport, mobility and income generating activities

As stated earlier, *Byimana* village is located at the edge of the city. The main access road crossing the village was being tarred at the time of field data collection. Road construction works have not interrupted the existing public transport that is offered by one uncomfortable 18-seats minibus, locally called *Twegerane*. The group of males was satisfied with local transport while the females were not. Indeed, females compare *Twegerane* with comfortable Toyota coaster minibuses (30 seats) that are used on main paved roads of Kigali. Transport is considered expensive as they pay RWF 300 while in general, the fare to move within the city in minibus is RWF 200. The situation will surely improve after completion of the road construction. The village is also accessible with bicycle and motorbike taxi, but there are more expensive than public transport by minibus.

On the impact of public services availability on people's decision to move in the village, the group of elders had no opinion. For them, it looks like land availability is the only factor that attracts people in the village. Yet, the groups of young people consider that availability and quality of public services influence people to settle in *Byimana*. For instance, people with cars search for building plots or houses accessible by road. Moreover, people are attracted also by piped water and electricity provision. Rich people do not like to buy building plots that are far from the pipe water and electricity lines.

Despite being semi-rural, *Byimana* village interacts with neighbouring and remote rural and urban areas. People from rural areas come to the village searching for jobs or visits. According to interviewed residents, visits last around five days on average. *Byimana* dwellers also go to their respective native areas for occasional visits. Those who still have land properties in rural areas use to go back to exploit them or collect rent. The travel is always done by public transport except for the very nearby villages.

It is important to emphasize that the area is not attractive anymore at least for common ground population because of the ongoing expropriation by RHA. Most of residents expropriated move to *Rwamagana* district and others head to non-specified places. *Rwamagana* is one of neighbouring districts which is still predominantly rural and where it is still possible to purchase land farm at reasonable price, especially after expropriation. Expropriated residents move out the village because they cannot afford to proposed housing scheme and no individual housing development is accepted. They stated they were not happy to move out of the village, however they have to comply with the Kigali conceptual master plan. Some of them said they are distressed since they have been living in the village for many years. Moreover, they blame the city of Kigali for the long delays in developing expropriated lands. Such land become stronghold of malefactors while they could be used for farming activities as far as planned projects are not started. The example they use to give is *Kiyovu cy'Abakene* (*Kiyovu* settled by low-income people) that was expropriated in 2006-2007 and very few buildings have been constructed. They also mention *Gahanga* which was planned to host the new national stadium. People were expropriated two years ago but nothing has been done over the land so far.

3.2.4. Future challenges

Byimana's residents have raised a certain number of concerns that need to be addressed in the future:

- Though they have short time to live in the village, they deem that the village should be regularly supplied with electricity and piped water, and adequate public transport to make dwellers' life of neighbouring villages more comfortable.

- Given the long distance to the nearest open market, *Byimana's* dwellers suggest the construction of a market in the village.
- According to *Byimana* dwellers, in 10 years' time, their village will be modernised with multi-storeyed residential and commercial buildings and dense paved road network. Indeed, they are already aware of the current development since some of them have been already expropriated. Therefore, most of them will inevitably move out the village.
- The group of elder females wish the government to stop expropriating people in the way that affect them, because many people experience harsh new living conditions after expropriation. They said: "... we cannot fight against the development, but the government should also think about fair treatment of people who are expropriated". The group of young females was more explicit: "*the government gives tentative date around which compensation will be paid. In general, the announced deadline for payment is never respected and is done some months later even years. They wish the government or RHA should respect the communicated date of compensation payment and does not prevent the land owner cultivate their land until they are paid.*"
- The group of elder females reported that conversion of agricultural land into built-in space will contribute to the reduction of air quality

3.3. *Iwacu* village

3.3.1. Background

Iwacu village is located in Tetero Cell, Muhima Sector in Nyarugenge District. It is an old slum adjoining the city centre. The village develops over a moderate slope between downtown and the main road from Nyabugogo to the central main roundabout.

Before the independence *Iwacu* village was forested and very few people resided there. It is even said that wild animals such as hyenas were living there. When the country got independence in 1962 many Rwandans working for the newly established administration settled there. Other people from all parts of the country headed to Kigali searching for paid jobs. As there were no regulations on urban development, most of them established haphazardly in *Iwacu* village and other parts of Muhima creating one of the oldest informal settlements of the country. As migrants moved in, the forest was cleared and small houses thatched were erected. Until mid-1970s, such houses were still found *Muhima* Sector. In meantime the area had been provided with piped water, electricity and earth road network. Such developments attracted more and more migrants leading to the high density of constructions now observed. *Iwacu* village is a slum. House owners are not authorised to upgrade their houses as the area is planned to become

part of the new CBD. At the time of field data collection, a part of the village was already cleared down.



Photo 4: Expropriated area in Iwacu village fenced with wire mesh waiting for redevelopment

The village is mostly settled by trade people, retailers, civil servants and people working in the private sector who occupy low or middle positions, and load carriers. Many informal workers are also found in the area.

Dwellers of the neighbourhood came from all parts of the country but mostly from the South, Western and North Provinces. *Iwacu* village is an slum characterised by high density of old constructions. Living conditions are said cheap compared to other informal settlements in Kigali. The village is attractive as it is located near Nyabugogo main taxi park and fresh foodstuffs market, and the city centre of Kigali. In addition, the area is very close to the City centre, to *Muhima* hospital and schools.

3.3.2. Land, Housing and Services

In early 1960s, as there was still plenty vacant land, some people could get land through gifts by native. However, as the city developed, the migrants acquired building plots through purchase. Nowadays, due to high density of construction, anyone who is interested in acquiring building plot must imperatively buy a property.

Given the haphazard development of the area, on average, the houses found in *Iwacu* village are of low quality. Most of them are old and small, with two or three small sleeping rooms, have walls made of wood-mud or mud bricks, gable or shed roofs covered with old corrugated iron sheets. In some cases, stick trees and small stones are placed on the roof to maintain iron sheets

in place. Recently, house owners were instructed to paint the roof in red for hiding rusty iron sheets and given more homogeneous appearance to the area. The instruction applied for all houses covered with simple iron sheets in the city of Kigali. Some houses have been improved by recovering lower parts of walls with carved stones or cooked bricks. Because of high density of construction, very few houses are fenced. Compound houses found in the village have the same characteristics and are mostly occupied tenants. Sometimes, landlords live in the same compound with their tenants. The density of construction has been increasing over time to the point that the area is seriously congested, but there was no modernisation. Because of high density of construction, one accesses his/her home after meandering through other houses. There is a high mixture: residential houses adjoin commercial houses and many of residential houses have frontage shops. People who have their income increase following of their business or the change in the working position in the public or private sector tend to move out the village for more comfortable neighbourhoods.

Interviewees and FGDs discussants said that the local climate has changed. The village is perceived hotter than in the past. This is quite understandable as the number of constructions have been considerably increasing and at the same time all trees were cut down. Heavy rains now cause damage to the houses. The risk can be higher since houses are old and made of non-durable materials.

Water

The village is provided with piped water by the national water utility, WASAC. Near all of houses in the village are connected water network. The very few ones without water in their premises buy it from public taps constructed by WASAC or from their neighbours. A jerrycan of water is normally paid RWF 20 at WASAC's. Individuals sell a jerrycan at RWF 50. The village is regularly served with piped water, however, in the long dry season (June - October), the village can experience water shortage for some hours a day. Water shortage of one day is considered as extreme, while other parts of Kigali can spend three weeks or even more without any drop in their taps. As water shortage is not a critical problem in the village, none of the residents have installed water tank. Rather they use to stock water in 200 l plastic tanks, and jerrycans. It is also common to collect rainwater that is used for domestic hygiene.

Power used for lighting and charging mobile phones

All houses in *Iwacu* are connected to the electricity grid. Indeed the village is one of the oldest area to have been provided with electricity and any new house was connected because the connection increases the values of the house either when selling or renting it. Electricity is used by all people for operating radio receiver and television, charging mobile phones and lighting since most of households are connected to the electricity grid. The monthly electricity bill varies largely depending on the electrical appliances used, the number of rooms and people living in

the households. Each house in the same compound is equipped with its own meter. This was adopted by landlords to avoid disputes between tenants over top-up arrangements. Because of the prepaid system, people have difficulties in determining how much they pay for electricity since they can buy many times a month and do not keep records. Blackout are very rare compare to other parts of Kigali. The mobile phone signal coverage is very good.

Fuel used for cooking

Charcoal is the most used fuel for cooking, however there are very few households who still use firewood. Charcoal has been in the village since early 1970s because the it was considered as cleaner that firewood but also one sign of urban life style. Price of charcoal and firewood has been increasing. In present days, a sack of charcoal cost between RWF 7,000 and 8,000. In early 2000s, a sack of charcoal was sold around RWF 3,000. Poor households which cannot afford to buy a sack, usually buy small quantity when it is time to prepare meals. Restaurants use mostly firewood. Some people have specialised in charcoal vending business: they buy hundreds of sacks of charcoal and retail them. Sacks of charcoal are kept outside (see photo 5).



Photo 5: Pile of sacks of charcoal in Iwacu

Toilet/Sanitation

Near all houses in the village have a toilet. The most common type of toilet found in pit latrine with paved slab. However, some very few houses are equipped with flushing toilets. People

living in compound frequently share the same pit latrines. Houses with flushing toilets and the ones with pit latrines face the same problem when they are full because of high congestion. Since there is no free space, when pit latrine is full, it is filled in with earth and stones, paved and converted into a new room. Consequently, a new pit latrine is dug in one of the existing rooms. This is a very difficult task as the dug earth is the one to be used to fill in the used toilet. The high density of constructions and toilets creates incommodes residents as bad smell invades houses and frequently attracts flies. Access to adequate toilet is a crucial problem for the majority of Iwacu dwellers. This was acknowledged by all FGDs participants.

Due to the high density of constructions, waste water is generally evacuated through a network of rivulets, mixes with rain water and ends in Nyabugogo River. When there is heavy rain, the rivulets network spill over and water sometimes enters dwellings, and is source of disputes between neighbours. The group of elder females expressed the problem in the following statement:

"Houses are very closed each other, we do not have space to dig sumps. Waste water passes in front of our houses, frequently deposits rubbish there, which creates disputes between neighbours. Then local leaders intervene and instruct us to better manage waste water. However, this is not possible because there is no free space."

Iwacu dwellers are also annoyed by the open channel that drains waste water from Kigali central prison. This is critical especially in dry season when there is no water to sweep the wastes into Nyabugogo River.

Domestic solid wastes are put in used sisal sacks and removed by a private company. The monthly subscription to benefit from such service varies between RWF 1,000 and 3,000 depending on the household's *Ubudehe* category⁶. Restaurants owners and other trader peoples pay normally RWF 10,000 but they consider such amount very high. No solid wastes are found in along the paved road, because it cleaned on a daily basis.

All the groups acknowledge that sanitation is a serious problem in the area and that it should be addressed by the government.

"The money we pay is too much. If the government could pay that company it will help people. We pay for waste and security it is really too much. You see that we have to pay for everything. In addition we have to pay for electricity and water." (A man, 55 years old)

⁶*Ubudehe* Categorisation: All Rwandan households are classified into categories based on household's wealth. Currently, there are 4 categories: Category 1 comprises households that can hardly afford basic needs while the category 4 include those who own large-scale business, individuals working with international organisations and industries as well as public servants.

3.2.3. Livelihood and mobility

Income generating activities

The main source of income in *Iwacu* village is petty commerce. This includes frontage shops, small bars and restaurants, foodstuffs and charcoal vending, small home-based enterprises (doughnuts, samosa and ball meat making) etc. Casual workers offer washing and ironing services and load carrying. Currently, retailers are grouped in cooperatives and their small businesses are now run in small shops rather than on the street as it used to be in past. Load carriers search for daily job in the *Quartier commercial* and *Nyabugogo* business centre where most of wholesaler shops are, and *Nyabugogo* main taxi park. Civil servants and workers in private sector rely on monthly salary.

Services availability and income generating activities

The village is well provided with public services: most of them are available, and the ones not found in *Iwacu* are easily accessible in the neighbouring villages. This is the case of banks, health centres, hospitals, schools, markets, taxi park, etc. The availability of public services attracts many people especially the ones with low and moderate income to settle in the village. For instance, electricity provision has contributed to the development of various activities such as restaurant services, welding, beauty salons, ironing services, etc. However residents said that ironing services has drastically declined because the market that used to sell used clothes has been demolished. Many of the traders who used to ask for ironing services have moved their business to other places. The closeness to *Nyabugogo* main taxi park has allowed young people to work as load carriers, selling soft drinks and snacks, guiding passengers, etc.

Urban transport, mobility and income generating activities

"In this village, transport is not a problem, not at all, provided that you have money. Suppose when you are going to shop in the "quartier commercial" (the main commercial district of the city), you don't need a vehicle. A load carrier transports your goods at home or shop and you pay him, the same when it is from or to Nyabugogo market. It is easy for us. Moreover it is very easy to get a public bus or even a motorbike taxi" (A woman, 33 years old)

Local transport is not a problem at all as the village is closer to *Nyabugogo* main taxi park. Moreover, public bus line that connects the main taxi park to the city centre passes nearby. Motorbikes are also available for use day and night. Load-carriers are also found in all corners of the village.

In terms of mobility, two aspects can be identified: one concerns regular commuting within the city and the other one is between Kigali and other places. For the regular commuting within the city, *Iwacu* dwellers use various means of transport. When they move around the village, they usually walk or in case of emergency, use a motorbike taxi. To travel to distant neighbourhood for work, friend visits or leisure, they use public buses. The fare varies according to travelled distance. It is on average RWF 200. *Iwacu* dwellers use public transport to travel outside the city. The fare also depends on the travelled distance and is fixed by Rwanda Utility Regulation Agency (RURA) as it is done for the entire country.

Iwacu's dwellers, especially the most recently established, still have strong ties with rural areas. There are some men who came in the village searching for casual jobs and leave their families in rural areas. When they gain money, they send some to their families or go back in their family for a week or some days to see how the family is coping with their absence. Relatives living in rural areas can also visit the person who came to the city. The duration of the visit varies considerably depending on the age of the visitor and the host's capacity to house the visitor. Children and young people can stay longer while usually spouses spend a week-end or four days. A wife's longer stay usually indicates that she is willing to stay in the city. Well-established families also still pay visits to their friends and relatives living in rural areas. Indeed the first generation of urban dwellers does not constitute the majority of the urban population.

Trade people from *Iwacu* also buy foodstuffs on rural markets and retail them in Kigali. Those who carry out such small business are mostly people freshly established in the city. Most People from neighbouring rural districts like *Rulindo* and *Kamonyi* also supply the village with fresh vegetables, sweet potatoes, chicken, etc. On the other way, retailers from *Iwacu* sell some products especially used clothes in rural markets (*Nkoto* in *Kamonyi* District, *Rwahi* and *Shyorongi* in *Rulindo* District, etc.).

Climate change has impacted on livelihood because, foodstuff price have been increasing because the climate change has resulted in the decrease of agricultural production. Of course where the climate has been normal, the variation of food stuff is not considerable.

3.2.4. Future challenges

Iwacu's residents of have different views on the future of their village:

- All FGDs discussants and interviewees stated that, in 10 years' time, their village will be part of the new planned central business district (CBD) according to Kigali Conceptual Master plan. It will be occupied by multi-storeyed commercial buildings.
- Since the area will be business-oriented, all FGDs discussants and interviewees are convinced that the current dwellers will be compensated and instructed to move out.

However, according to their say, they fear that the compensation will not be fair as it was observed in other similar cases. They would be happy if the government could substantively raise the expropriation tariff. The one currently applied does not allow expropriated people with small properties to acquire new land and dwellings. One member of the group of elder females complained in these terms:

"I know we will be chased out the village. What we wish is that they (the Government or the city of Kigali) respect us and our properties, and then we move from here without any problem. As we call the compensation paid (for our belongings) 'ticket money', we wish that they pay us sufficient ticket". (In other words, she is advocating for raising the compensation tariff).

Another woman interviewed said:

"We are happy with this research, [...] I live here in Muhima cell, city of Kigali since more than 20 years. I agree with the re-development of the city, but what we need is to be well compensated in order to get other land parcels out of Kigali. Living conditions here in the city are very expensive and it is difficult to feed children and meet other basic needs" (A woman interviewed, 46 years old)

- If the government or the city of Kigali cannot pay a fair compensation, the other preferred alternative would be the relocation of expropriated people in finished houses as it was the case for residents of *Kiyovucy'Abakene* (Kiyovu settled by low-income, a zone of *Ubumwe* cell in the same sector of *Muhima*). The poorest with very small properties were allocated new finished houses in *Batsinda*, a settlement developed by the city of Kigali.
- Asked in which neighbourhoods they would like to stay if this opportunity was offered to them, most of interviewees responded that they would like to live in well planned settlements like *Kibagabaga*, *Nyarutarama*, *Kicukiro*, etc. but they all recognised that it was not possible because of low financial capacity.

3.3. *Kanyinya* village

3.3.1. Background

Kanyinya village is located in Ruhango Cell, Gisozi Sector, in Gasabo District. The village is built on a steep slope. The zone that was investigated extends from the paved segment road Kigali Independent University (ULK)-*Kinamba* to *Rwezangoro* valley. In front of the village is Muhima sector. Before early 2000s, the area was totally rural with few scattered households occupied by mostly by indigenous. Houses were small, old and occupied by aged people. The dominant activity was agriculture.

"The settlement of this village is recent, it dates back 5 or 6 years. It is that time that the area has attracted many people. Even me, when I came to settle here the area was still rural. This zone is settled mostly by immigrants, indigenous are very few. Present residents originated from Cyangugu, others from Gitarama, others from Butare." (The group of elders males).

Though the city was expanding quickly, people were not attracted to the village, because it was said that the office of the President was planned to be built on the top of *Gisozi*. When people came to know that this was not true, then they started to move in. The densification started after the construction of *Kigali Genocide Memorial Centre* in 2004. New migrants came then from rural areas and other parts of the city of Kigali that were expropriated for redevelopment such as *Kiyovu*, *Muhima* and *Kimicanga*. From since, the village was provided with infrastructures such as roads, electricity and piped water. The provision of those services attracted in-migrants but also some people from other parts of the city of Kigali. The village was not safe because it was not densely populated. The situation has improved over time with the continuous densification and tree clearing. The settlement developed in a haphazard way since construction was not controlled. The village is a recent slum under consolidation. According to the group of young females, for them, *Kanyinya* is still rural because there are many children per household. *"There are even women who have like 8 children and they are all still in primary schools"*. Indeed, the great number of children is one of the characteristics of rural families in Rwanda.

The village is as a slum built on a steep slope site, densely constructed dominated by houses of poor quality, poor sanitation and poor street network. *Kanyinya* is settled mostly by in-migrants.

3.3.2. Land, Housing and Services

Until early 2000s, land was owned by indigenous. When migrants moved in, indigenous sold to them parcels of land over which small houses were erected. Gradually, agricultural land was converted in building plots sold to new comers. In early 2000s, it was possible to buy a building plot (20/30m) between FRW 300,000 and 400,000. By 2010, a plot of same size could be sold

more than 1 million RWF. Nowadays, the area is very densely constructed and anyone interested in acquiring building plots must purchase property that they can develop later. The price of the property is influenced by the size of the property, the building materials of the construction, the closeness to the road, etc. The price of property decreases more and more as one from the top to the valley.

The construction of houses has started near the main access road. After the first row of houses, a new row of houses was added by new arrivals, and so forth. Now construction have reached *Rwezangoro* valley. All trees have been cut down and all the slope is densely built. and progressively. The construction is done at very high pace, because parts that were not built in 2014 when we visited the area for the first time, was fully built in August 2015. The slum developed without problem though the area is visible from the city centre.

Most of the houses found in the village are of very low and low standards. They are constructed hastily with non well dried mud bricks as they are unauthorised. House owners start by building one or two rudimentary small room houses and occupy them before completion. The house is then extended later. The development of the slum is done by infiltration. Most of the houses found in the village are very small. Very few have more than 60 m², even houses of less than 20 m² can be found near the valley. In such conditions, houses with more than two sleeping rooms are very few. They have walls are made of mud bricks or wood mud and shed roof covered with corrugated iron sheets. Many of them especially the unfinished ones, have earth floor and no ceiling. Though most of the houses have metallic windows and door frame, those with wooded doors and windows can be found. There are small compounds that have three or more houses. Such houses are mostly occupied by renters. The quality of houses decreases towards the valley. The area is so densely constructed that accessing one's house necessitates meandering between houses. Access paths are very narrow and eroded.



Photo

6:

Overview of housing in Kanyinya

In terms of housing development, the major change has been the eradication of thatched houses in 2010. Vulnerable living in such houses were provided iron sheet, and local leaders organised the fabrication of mud bricks and construction works. The density of construction has considerably increased and new small houses are being constructed near the valley because the upper zone is already completely built. As current regulations prevent illegal construction, new houses are built in hurry and their durability is not guaranteed as many of them have foundation made of mud bricks.

Local climate change is strongly perceived by *Kanyinya* dwellers. They said that their village is warmer than the time they settled. Springs located downhill have dried up meaning that the replenishment of underground water is no longer possible due to the increase of runoff and shorter rainy seasons. Excessive tree clearing has contributed to the change of the local natural environment.

Water

Water supply mode is dominated by purchase from very few households connected to WASAC piped water network. Several arrangements are possible: either households choose to share the monthly water bill or they pay each time they collect water from their neighbour. The normal price is RWF 20-30 per jerrycan. When there is water shortage, a jerrycan of water is sold RWF 500 transport included especially in the long dry season. Water from marshland is also used for washing clothes and cleaning houses. This contributes to lower down the water bill especially for poor families. *Kanyinya's* residents would like to see the area provided with a dense piped water network. In case this is not possible, they wish to have at least one public tap.

Power used for lighting and charging mobile phones

Most of households are connected to electricity grid and therefore, electricity is the main source of energy used for lighting and charging mobiles. The only houses not connected to the electricity grid are houses under construction. The area is regularly supplied with electricity, power outages are not frequent because the village is served by the power line that feeds *Kigali Genocide Memorial Centre*.

The mobile phone network coverage is very good and residents can access all services offered by all the three mobile phone operators. Mobile phone is used for calling, text-messaging, listening to radio and music, taking photos, and transferring money. Other uses are less frequent.

Fuel used for cooking

Charcoal is the most used fuel for cooking though some very few poor households still use firewood. The price of a sack of charcoal varies between RWF 7,000 and 8,000. Poor people

usually buy small quantity of charcoal, the unit of measurement being a small plastic bucket that cost RWF 200 or 300. The price of charcoal and firewood has been increasing over time. In early 2000s, people used also parched skin coffee beans from coffee factories and residues from carpentry as they were free. Since some years, those residues are now sold to artisanal bricks factories and therefore households cannot afford them anymore.

Toilet/Sanitation

The most common type of toilets found in *Kanyinya* are pit latrines. Most of them are rudimentary (See *Photo 7a*). They are very small and built with non-durable materials. Slab is frequently made of wood and earth, not cemented. Most households be in compound or not, share latrines and some have padlocks to avoid free access to strangers. Some families with moderate income and nice houses have indoor toilets. There are no public toilets in the village. In the lower part close to the wetland, the depth of pit latrines cannot exceed 3 m without reaching the underground water table. Digging pit latrines near the wetland is a serious problem since it contributes to water resources pollution. In general, there is no system to collect waste water. They are thrown in courtyard and flows naturally downhill in ravines (See *Photo 7b*).



Photo 7: Sanitation: (a) an outside pit latrine (b) a ravine draining wastes

There is a company which removes domestic solid wastes two times a week. Solid wastes are piled in sacks and carried to the main road where the company truck collects them. The monthly subscription is between RWF 1,000 and 1,700.

3.3.3. Livelihood and mobility

Income generating activities

Kanyinya is settled mostly by poor people who depend upon small businesses (petty commerce including small bars, cheap restaurants, selling cooked beans, charcoal retailing...) and casual jobs such as construction works, load carrying, street vending, etc. Owners of compounds rely greatly on monthly housing rental. Indeed, since the village is an informal settlement occupied by low income earners, housing rental price is very low compared to well-established neighbourhoods. Casual works are mostly found in mud brick making, and construction, but most of the casual workers search for job out of the village. Farming activities totally have been abandoned because the area has been fully constructed. The few employees working in public and private sector rely on monthly salary.

Services availability and income generating activities

Services like piped water, sanitation, electricity, and local transport are available in *Kanyinya* but no banks or financial institutions and health facilities are found in the area. The quality of public services affects decision to live in *Kanyinya*, even nearby. Residents have to go to the city centre, *Nyabugogo* or to a place called *Kinamba* (20 minutes walking-distance) to benefit from such services.

Certainly, provision of water and electricity have contributed to the attractiveness of the village. Availability of public transport and the closeness to the city centre also attracts people to settle in the area. Cheap living conditions (low rental housing price, low price of food) attract poor people to settle in *Kanyinya*. Because the village developed in a haphazard manner, it does not attract wealthy people who are looking for well planned settlements. The group of young people acknowledged that the availability of public services affects income generating activities. Thanks to electricity provision, new activities have been created in the village. These include beauty salons, milk selling, bars, grain milling, etc.

Urban transport, mobility and income generating activities

Reaching *Kanyinya* village is not difficult since a public bus line connects the area to the *Nyabugogo* main taxi park. The bus line is operational from 5:00 am to 10:00 pm. One-way fare is RWF 150. There is also a private investor who offers a shortcut to *Nyabugogo* via an improved natural water channel using small boats. The one way fare is also RWF 150. Young students in primary school and old people are transported free of charge. Young dauntless children also use rough wood raft to join *Muhima* and vice-versa via the waterway. People can also use motorbike taxi from or to the village.



Photo 8: The shortcut water way to Nyabugogo Taxi Park

As the village was established recently and mostly occupied by low-income groups, residents of *Kanyinya* have strong ties with other urban villages of the city of Kigali, but also with neighbouring and remote rural areas. Actually petty traders from the villages buy fresh foodstuffs either from *Nyabugogo* market or rural areas. Indeed there are some trade people who come to sell fruits, vegetables and condiments such pepper, tomatoes, etc to the vegetable market place located near *Nyabugogo* main taxi park. Some ladies from *Kanyinya* village also use to buy on rural markets foodstuffs that they resell in the city. There are also friend visit from rural to *Kanyinya* and vice-versa because people freshly established in the still have their properties and relatives in their native areas. Most of the casual workers daily move out the village to search for job as job there is no job opportunities in *Kanyinya*. people can walk for joining nearby villages, otherwise they use mostly public transport that is the most accessible mode of transport.

According to the interviewees and FGDs discussants, climate change has impacted on the *Kanyinya's* residents livelihood. The group of old males said:

"For example last year people (2014), heavy rain have caused flooding of Nyabugogo and Rwezangoro wetland. Consequently all crops that had been grown in the two valleys were severely affected. People who have cultivated yielded very little quantity. This year (2014), people did not cultivate as they were afraid to experience the same damages. This is a big loss". They also mentioned that *"climate change contributes to decrease of agricultural production in rural areas and consequently people from rural areas (relatives or others) come to search for job in the city. This affects Kanyinya dwellers because their arrival increases the number of job seeker, and when they decided to stay, housing rental price augments."*

Young females stated that climate change has contributed to the irregularity in water supply. Wood clearing has also contributed to the rise of price of firewood.

3.3.4. Future challenges

Most of the *Kanyinya's* residents believe expect to stay longer in the village. They have no fear of expropriation because the area is not among the most suitable sites for urbanisation in the city

of Kigali. If they were to be expropriated they would have heard about in several meetings held with local leaders.

For elder people, in ten years, the neighbourhood will be developed. They expect to stay in the area. For the group females, *Kanyinya* will be a gentrified neighbourhood. More affluent people will be coming in and poor people will be chased out. There already signs of such evolution. New rich comers buy houses in the village and upgrade them. The previous house owners then head to rural areas especially the Eastern province or other places not yet urbanised in the city.

For their comfort, *Kanyinya* residents would appreciate if piped water supply was made permanent. Water shortage especially in the long dry season obligates them to use polluted water from *Rwezangoro* river. Regular water provision is considered as the first service that deserve priority for improvement because without water, adequate domestic sanitation is not possible. They would like also to have an adequate street network to enable to access easily their homes. But this will be hardly feasible since the village has developed in a haphazard manner, unless some houses are demolished. but who will compensated the house owners? They would also appreciate to have a drainage system for waste waters and rain water. But this also looks like near impossible as for the street network.

Most of interviewees asked where they would like to settle in the city of Kigali if there was no financial or administrative constraints, said they would settle in *Kimihurura* or *Kacyiru*, or the top of *Gisozi*. *Kimihurura* and *Kacyiru* are neighbourhoods with some parts well planned and served by an adequate street network. This shows that people aspire to live in better conditions, and the ones who live in slums live there because they have no choice.

3.4. *Kibiraro* I village

3.4.1. Background

Kibiraro I neighbourhood is located in Remera sector, Gasabo district at the foot of Nyarutarama hill. The settlement develops from the bottom to the middle slope over 32 Ha. Before 2000, the area was fully rural with very sparse houses. People living there were relying on farming activities. There were no public infrastructure. The area was not accessible by motorised vehicles, people had to walk. There were cattle kraals in the lower part of the village, this why the area was named '*Kibiraro*' that simply means "the place where cattle kraals are found".

When wealthy people began to buy land on the upper *Nyarutarama* in 1999-2002, people who lived there were pushed downhill in *Kibiraro* where they bought land and started a small informal settlement. As many wealthier people were coming in the upper *Nyarutarama*, the movement downhill continued. When *Kibiraro* was provided with electricity, then people from

various parts of the city of Kigali and remote rural areas rushed to *Kibiraro I*. Most of the urban migrants from the city of Kigali came from from *Rugando*, *Kacyiru* near the ministerial zone, *Kibagabaga*, *Gacuriro* and *Kimicanga*, area that were under re-development. The people The area developed considerably to become a new urban informal settlement.

Kibiraro I is a slum, built on the lower part of *Nyarutarama*. Most of its residents originates from South-Western part of the country, and others came from other parts of the city of Kigali and other regions of the country.

3.4.2. Land, Housing and Services

All new comers in *Kibiraro I* acquired land through purchase. In early 2000s, as there was plenty of unoccupied land, the price of a building plot (20/30m) was very low. According to one interviewed people the estimated between 30,000 and 50,000 RWF. People thought the urbanisation of the area would delay because of the distance separating *Kibiraro I* and the city centre. Very few people could believe that the upper *Nyarutarama* had to become upscale neighbourhood capable of attracting many people and business. Following the rapid modernisation of *Nyarutarama*, land price increased upward since as there were many people heading into *Kibiraro I*. The late comers have bought building plots near 1 million RFW even more for building plots located near the road. Currently, the settlement is totally occupied. Any individual now interested in acquiring land has to buy a property and eventually re-develop it.

Kibiraro I is a slum. Most of houses, except the ones located along the road segmented separating the village and the upscale *Nyarutarama*, are small single-storey houses and of very low and low quality. The smallest houses have between 10 and 30 m² and have 1 or 2 small sleeping rooms. They have walls made of mud bricks sometimes cemented and shed roofs covered with light corrugated iron sheets. Some roofs are made of makeshift and fixed with small stones. Iron sheets have been painted in red to hide rusty iron sheet and to give a homogenous appearance of new roofs as this was instructed by the city. Stones have been placed on roofs of some houses to maintain iron sheets in place. Door and window frames are metallic with white transparent glasses. Because the housing development was done in haphazard manner, accessibility of houses is very difficult. Continuous enlargement of the initial house or construction of new houses has congested building plots. Very few houses have kitchen, as most of households simply put their charcoal-stoves outside the house in front of the door.

As it appears on *Photo 9*, additional construction have permitted the creation of compact compounds over small building plots. Such compounds are occupied by tenants but sometimes the landlords live also in the compound. According to the interviewees, it is a small landlordism since house owners have three or four small rented houses. The area is very congested, and accessing one's home is only by meandering between houses. Small shops and frontage shops

also adjoin residential houses. This extreme mix of commercial houses and residential houses also disturbs residents especially when some shops sell beers. Bars are source of noise. On average, housing is not adequate. *Kibiraro* village contrasts with the upscale neighbourhood under development in the background of *Photo 10*.



Photo 11: Overview of houses in Kibiraro I

Water

Kibiraro I village is connected to WASAC piped water network. Some dwellers have water in their premises and households without water buy it to public taps. A jerrycan of water is sold normally RWF 20. Some poor dwellers use also water from the wetland. The first water tap constructed in *Kibiraro* was financed with RWF 600,000 given to the village under ‘*Ubudehe*’⁷ programme. This is state money given to villages to solve some programmes they are facing. In this case, it was decided to use the amount received for a the installation of a public water tap. The neighbourhood is permanently supplied in piped water, water shortage is rare.

Power used for lighting and charging mobile phones

⁷ *Ubudehe* is a governmental poverty reduction initiative which provides communities with the skills and support necessary to engage in problem solving and decision making for their development. Usually a non refundable amount of FRW 600,000 is availed to each village to support the community project agreed upon. When there is no pressing need, the money is usually given to the poorest residents who are asked to invest the money received in income-generating activities.

In *Kibiraro I*, all the houses are connected to the national electricity. The group of elder males reported that each household paid RWF 46,000 to get the low voltage power line in the village. *Kibiraro* dwellers are satisfied with electricity supply since blackouts are not frequent compared to the other places in Kigali. Therefore electricity is the most used source of energy for lighting and charging mobile phone.

The mobile phone signal coverage is very good as stated by interviewees and all FGDs discussants. They can always access services offered by all the three mobile phones operators. As in other parts of Kigali, mobile phone is used for calling, text messaging, transferring money, listening to radio and music, taking photos, etc.

Fuel used for cooking

Charcoal is the most used fuel for cooking. The charcoal retailed in *Kibiraro I* is brought from Western Province. A sack of charcoal costs around RWF 7,000-8,000. Some people buy huge quantity of charcoal and then sell to retailers. Households who cannot afford to buy the whole sack, purchase the small quantity needed to prepare their each meal. Usually charcoal is retailed using a small bucket and poor people buy according to their pocket.

Toilet/Sanitation

Almost all houses in *Kibiraro I* village have toilet. The most type of toilet found in the village is pit latrine. Compound have frequently one shared pit latrine. The latrines are very small and rudimentary: they have walls made of mud bricks not always cemented, and are covered with pieces of patched old iron sheets. The floor is made sometimes of bare timber. In the lower part close to the wetland, the depth of pit latrines hardly exceed 2 m since the underground table is not far deep from the surface. Latrines are generally of poor quality.

There is no system to collect and to proper channel waste water in the village. Waste water is routed through connected narrow channels from house to house until it reaches the wetland. The evacuation of waste water is very problematic especially during the rainy seasons, because of the huge quantity of rain water mixed with rain water, the rudimentary channels spill over and water frequently enters houses. Consequently, the absence of appropriate waste water drainage system contribute to disputes between neighbours.

" Kibiraro village is a very congested slum settled in haphazard manner. We do not have a drainage of waste water. This creates disputes among neighbours when one throws water in front of the neighbour's house. And it is not hygienic by the way. So, we wish

that the government help us to construct modern sewerage that can enable us to better manage waste water and rain water." (The group of elder females).



Photo 12: (a) Channel for the evacuation liquid waste and rain water. (b) Solid waste piled in sacks waiting the truck that will transport them to Nduba dumping site

Domestic and commercial solid wastes are collected and transported by a private. Each household and shop piles its waste in a sisal plastic sack and someone takes the sack to a grouping site. Then load-carriers of the company load the wastes in a truck company which transport them to *Nduba* dumping site. removes the domestic solid wastes. The monthly subscription varies between RWF 1,000 and 5,000 according to the household socio-economic status, while vulnerable households are exempted. However, those who live near the valley do not pay the monthly subscription. They throw their domestic wastes directly in the wetland, and this increase water pollution.

Sanitation has been ranked the first public service that needs improvement by all FGDs discussants and interviewees especially for evacuation of liquid waste and solid wastes. many households use to place sack of solid wastes near outside their premises while waiting the day of removal of solid wastes. They are then sources of bad smells that disturb residents and attract flies. In the second place comes water and electricity regular supply.

3.4.3. Livelihood and mobility

Income generating activities

Kibiraro I dwellers comprise mostly carpenters, casual construction workers, retailers, taxi and motorbike drivers, repairers of electrical appliances and other materials etc. Some dwellers also move around the city for vending fruits and vegetables on the street. The group of elder males mentioned that the village accommodates female sex workers who offer sex services in vibrant

corners of the city of Kigali. On average, most of *Kibiraro* dwellers are low income earners. Civil servant and people working in formal private sector are rarely found in the village.

Services availability and income generating activities

In the first place, *Kibiraro I* has become a congested slum because when public services were provided, people rushed to settle in the village. The availability of piped water and electricity has contributed to the creation of new income generating activities such as small beauty salons, small bars, water selling, DVD films/music burning and distribution etc.. This has attracted people with those small businesses to settle in the village.

Urban transport, mobility and income generating activities

Kibiraro's dwellers are satisfied with local transport. Indeed, the area is served with public transport bus line that operates from 5 am to around 10 pm. Motorbike taxi are also available. However, motorised transport inside the neighbourhood is not possible due to the constructions congestion. As stated earlier, there is no free space that can be used by a car nor even a motorbike. Therefore, repairing houses is very difficult as building materials have to be brought on head.

Apart from the high in-migration occurred in past years when the village was put in place, the current mobility is dominated by people who sell their properties and head to neighbouring places such as *Kinyinya*, *Gasanze*, *Bumbogo* and *Gisasa*. All these destination places are in Gasabo district meaning that those who leave the village do not go far in the countryside but prefer to establish in the periphery of the city. This is perhaps because they do not want to lose the above mentioned subsistence activities.

Concerning interaction with rural areas, *Kibiraro I* village gets almost all of foodstuffs from rural areas particularly sweet potatoes, *Irish* potatoes, cassava and beans. People from rural areas use to bring foodstuffs to their relatives and friends but also there are residents who do it as a business. Indeed, foodstuffs sold in the village are brought mostly from the Eastern Province. However, the links with rural areas are also characterised by job searching. For example masons from *Kibiraro* look for construction jobs in nearby rural areas. There are also friend visits on both sides from and to rural areas.

3.4.4. Future challenges

Kibiraro dwellers have different views on the future challenges awaiting the village. Some of them are listed below:

- In 10 years, residents of *Kibiraro I* see the area modernised. In that time, most of them are convinced they will have been expropriated and will have moved out of the village.

The group of elder females fear that they will not be able to acquire building plots in neighbouring villages because they are also modernising quickly. Therefore, building plots will be very expensive and not affordable for them. According to *Kibiraro* dwellers, the only future destination would be remote rural areas, but it will be very tough for them to cope with rural lifestyle after having been exposed to the urban one for several years.

- Conscious that poor sanitation engenders discomfort for all the village residents and is source of pollution that leads to the spread of diseases, all the FGDs discussants emphasized that if no attention is given to solving problems linked with wastes removal and evacuation of waste water, the area can be very exposed to various diseases.
- They also reported the need to have a nearby nursery and primary school for their children given that they have to travel for long distances to reach such schools;

3.5. *Muhabura* village

3.5.1. Background

Muhabura village is located in Kivugiza Cell, Nyamirambo Sector, in Nyarugenge District. The village is also commonly referred as Tent-Temporary-Permanent (TTP⁸) *Muhabura*. The village is a planned settlement which expands on a high steep slope of Kigali Mount facing the centre of the city of Kigali.

Before 1997, the area was forested with *Eucalyptus* mostly. It was not occupied and belonged to the State. In the programme TTP, that year, surveyors of the city of Kigali demarked building plots. There were no infrastructures and though roads were marked, they were not constructed. *Muhabura* TTP was established in 1997 by the government of Rwanda through the TTP program aiming at providing building plots to old case returnees⁹. Some of them had occupied houses left by those who fled the city after Rwanda Patriotic Front (RPF) took over Kigali on the 4th July 1994. When they came back massively from neighbouring countries, their houses were occupied and had nowhere. To solve this problem, the government of Rwanda initiated the TTP program. Old case load returnees who benefited from TTP program were allocated building plots by the state free of charge.

The first settlers started by fixing tents that were provided by NGOs or the State. After six months, tents were replaced by rudimentary small shelters. Most of them had walls made of wood-mud and covered with corrugated iron sheets. The size of such shelter was around 45 m². Therefore, they could plan the construction of the main house made of long lasting or semi-durable materials such as mud bricks, stabilised compressed earth blocks, cement bricks, cooked bricks, etc. All beneficiaries were instructed to have built permanent houses in 3-4 years' time. As some of the beneficiaries were vulnerable and could not finance the construction, the State helped old load returnees by providing some building materials such as timber, and iron sheets. In most cases, plots terracing and mud bricks making were done through the community works as well as the street network terracing. Later, TTP dwellers themselves improved and extended the road network.

Muhabura dwellers acknowledge that there is local climate change. This is perceived in through the decrease of rainfall and local weather warming. In addition, the conversion of the area into a residential village has contributed to deforestation as indeed, it was impossible to construct houses without cutting down trees. As a result, houses are exposed to wind force and some of them have cracks in the wall.

⁸ TTP is a Governmental programme that was aiming to provide building plots for old case returnees to enable them to establish in urban areas especially in the city of Kigali.

⁹ The 'old case returnees' or the '1959 refugees', refers to the return of many Rwandans who had fled the country in 1959s and came back to Rwanda massively in 1994-1995.

3.5.2. Land, Housing and Services

In *Muhabura* village, all plots of land was officially allocated by the city of Kigali and land title registered. This did not prevent some dwellers who were settled by the state, after realising that they could not afford the urban lifestyle, to sell their properties to other people and then headed to the rural areas. As elsewhere, land price was influenced by the size of the plot and the closeness to services like access roads, water pipe and electricity.

Given the fact that the settlement was established through a state financed program, the three steps have seen construction of a medium standard house at the end. The process followed the following steps:

1. *Tent* : within around three months, residents who received building plots were asked to plant tents in their respective plots;
2. *Temporary*: Build an annex small building using non-durable materials within a period of six months;
3. *Permanent*: Construct the main house with durable materials that comply to the regulations of urbanisation within six following months (MINITERE, 2000, p.10).

On the average, houses in the area are medium standard as many of them have walls made of mud bricks roughcasted and sometime painted, and gable roof covered with light corrugated iron sheets. Nowadays, modern and large houses with wall made of cement blocks or cooked cements with cross-pitched roof covered with modern iron sheets are being built in the village. Plots are fenced with mud bricks, cement blocks or plant.

Water

Muhabura village is connected to the piped water network. However, residents reported that water supply is erratic. In fact, the area spends three weeks or even more without any single drop in the pipes especially during the long dry season. The rare cases the village is supplied with water, it is frequently in the late night hours and without any prior information. Therefore, people have to wake up time to time checking if there is water. Some families even leave the tap open with a container expecting to get water. When water comes, it never extend beyond two hours and flows with very low water pressure. This is partly understandable given that the village is situated at high altitude (1800 m above sea level) and on a very steep slope. Some residents have installed water tanks and sell the precious liquid to their neighbours, but they never secure enough water. At the end they also end by running after potable water when the tank is emptied.

When by any means water is over in the village, people fetch it far away. *Muhabura* dwellers frequently fetch water in lower parts of the city near the Kigali Regional stadium. When this area is not served with water, people then travel farther to *Biryogo* or even *Rwampara* villages. Return travel takes more than three hours. It is very exhausting as those alternative sources of water are located downhill. There, water is also very costly as a jerrycan can cost between FRW 400 and 500 even more. This includes of course the price of water and the cost of transport.

"... We wait for WASAC to supply water, otherwise when it is over in our tanks because of the toilets, we buy in town or from people who sell it RWF 200 or 400 jerrycan. Price has been increasing because when we came to settle here a jerrycan of water was sold only 50 RWF. Just to let you know how crucial this problem is, my neighbour who has a baby sometimes pays a jerrycan of water even RWF 800 when she need urgently to clean the baby" (A woman interviewed, 43 years old).

Some households have engaged young load-carriers whose jobs are to supply water while in others, people use their cars to fetch water. Hence, regular water supply and public transport have been identified as the public service that need to be prioritised for improvement. Water supply is a serious problem in *Muhabura* and consequently, the population wishes to see that problem solved.

Power used for lighting and charging mobile phones

The first residents who settled in *Muhabura* organised themselves to get the village connected to the electricity grid and now almost all houses are connected. Each household contributed financially. Therefore, most of households use electricity for lighting and charging mobile phones. The area faces sometimes power outages but it is not excessive. In case of electricity outage, people use lamps, candles and torches of mobile phones for lighting.

There is a very good mobile phone signal coverage in the village and the residents have permanent access to services offered by all the three mobile operators, provided that one has enough credit on his card. People use mobile phone primarily for calling and text-messaging but also to listen to radio and music, transferring money, lighting, etc. Young people use also mobile phone for playing games and watching movies.

Fuel used for cooking

Charcoal is the most used fuel for cooking in *Muhabura* village, though some very few households still use firewood. When the settlement was established in 1997, firewood was the most fuel used for cooking because the area still forested, but following the continual deforestation, firewood has been decreasing and consequently gradually left out for the charcoal. A sack of charcoal costs between RWF 7,000 and 8,500 but people with limited financial

capacity can also buy small quantity on bucket where they pay between RWF 250 and 350 depending on the size of the bucket. The price of charcoal has been rising up as in the rest of the city. This has of course impacted on the cost of life.

Toilet/Sanitation

In *Muhabura*, each household has its own latrine. Most of them are pit latrines, and as reported by participants in FGDs, having a flushing toilet is of no utility given that water supply is erratic. Waste water and rainwater are mostly channelled to the sump dug within the compound. This is in line with the city of Kigali's instructions according to which that all households should retain its water runoff in sumps to avoid damages to the next houses located downwards and minimise disputes between neighbours. For some households, waste water is also thrown in the garden.

There is a private company that removes domestic solid wastes, AGRONI. Usually there are filled in in sacks and kept in one corner of the plot waiting when the truck will pass to collect them. The monthly subscription to benefit services from the company varies between FRW 1,000 and 2,000 depending on the quantity of wastes produced. Domestic biodegradable waste that are not removed by the company are used as fertiliser in gardens.

3.5.3. Livelihood and mobility

Income generating activities

Apart from small frontage shops, almost all residents of *Muhabura* have their jobs outside the village. Most of them are civil servants working in different public institutions (mostly military and policemen), and others work for the private sector in the city centre and other neighbourhoods of the city. Public servants and employees of the private sector leave the village early in the morning for work and return late in the evening. Others, most of them young, are employed in small business outside the village. These work in beauty salons, retailing shops, etc. Most of women stay at home handling households' daily activities and for some, running small frontage shops.

Services availability and income generating activities

The quality of public services affect decision to live in *Muhabura* village. For instance people are not keen to rent houses in the settlement because of erratic water supply, and lack of public transport. It was also reported that when people living in the area buy a car, and his house is not reachable by road, they move out even when they own their own houses. However, as there are very limited income generating activities within the village, the availability of public services has little impact on the livelihood of *Muhabura* dwellers. The only exception highlighted by all

respondents was for the public transport. Indeed, people working in the city and elsewhere need public transport closer to the village, especially in morning and evening hours.

Urban transport, mobility and income generating activities

The village is peripheral, on a steep slope and suffers from poor transport services. Though recently the area was provided with access roads, there is still no public bus line connecting the village to the city. It takes around 20 minutes for residents to reach the nearest terminal of public bus transport, therefore, they use private taxi cab and motorbike taxi that they call to pick them up from their homes. Many people prefer to take motorbike taxi as it is cheaper than the taxi cab.

3.5.4. Future challenges

As mentioned above, there are two major critical challenges for the development: these are erratic piped water supply and provision of public transport. The village is built at higher elevation and on steep slope and consequently is not easily supplied with piped water. Therefore, some residents leave the place for other neighbourhood better served with piped water supply. There is also a need of a public transport line that cross the village to enable the residents to connect easily with other villages.

Muhabura's residents expect their village to become the hub of tourism activities in Kigali because of the presence of *Fazenda Sengha Horse breeding and riding*, a private recreational establishment where visitors can ride horses, play badminton, *pétanque*, archery, trampoline, etc. The village can also take advantage of its elevation that allows a panoramic view of the city of Kigali and other parts of the country. Nonetheless, they call upon authorities to make plans for reforestation of the area where trees have been cut down so as to ensure fresh air and maintain cool weather.

Given the fact that the settlement was established with full support of the city of Kigali, residents have no fear to be relocated as it has been the case in other villages throughout the city.

3.6. Nyakabungo village

3.6.1. Background

Nyakabungo village also commonly known as *Batsinda* settlement is located in Kagugu Cell, Kinyinya Sector in Gasabo District, about 15km from the city centre. The village is established on a moderate slope towards the northern part of the city of Kigali. The site was designated to accommodate people relocated from from *Kiyovu cy'Abakene* (Kiyovu informal settlement settled mostly by low-income people) zone¹⁰ that is planned to become part of the new CBD. Between 2005 and 2008 some 362 households were given a choice of accepting compensation and moving elsewhere to a place of their choice; or investing their compensation payment in acquisition of a new house in *Batsinda* settlement. A total of 120 households chose to move to *Batsinda*, whilst others moved to other neighbourhoods within Kigali and a few relocated to rural areas.



Photo 13: A typical house in Batsinda settlement

The settlement was developed in an area that was formerly rural, but was *de jure* part of Kigali city. The village was dominated by farming activities with little infrastructure. The city of Kigali compensated the previous land owners and then built 250 houses for relocation low-income households to be removed from informal settlements located near the city centre. There was no electricity, no water pipe and very poor housing but nowadays, the built environment has changed.

¹⁰ Kiyovu area: a former informal settlement adjoining the city centre. It has been expropriated in 2005 to give place to well-prepared construction plots planned mainly for commercial buildings.

According to the residents, the most distinctive characteristic of the area is that living conditions are affordable to the low-income earners in the city. A man interviewed (46 years old) said:

"The village is a cheap place, the food is cheap, and the housing is cheap. People can rent a small house at around RWF 8,000. Indeed there are of course expensive houses but for low-income renting a house is not a big challenge."

Respondents consider that the village is developing given the changes in housing quality and infrastructure provision, and the fact that the area continues to attract more rich new comers.

Residents of the area consider that local climate has changed: weather is becoming hotter and dry season longer. Dust from the earth road invades houses causing indoor pollution. There is also dust deposit on houses' roof.

3.6.2. Land, Housing and Services

With the modernisation of the city of Kigali that started by 2005, the city decided to start a Model House concept in *Batsinda* for relocating expropriated people from informal settlements, starting by the central ones. The city planned to construct around 1,000 low-cost homes using local materials including timber stabilised compressed earth bricks, but less houses were built. Most of the built houses were initially by low-income households relocated from *Kiyovu*, an informal settlement located near the city centre. Relocated households were given the property at a total cost of 3.5 million RWF. As most of the residents totalling much less than this, Kigali City Council facilitated the residents to have loans and reimburse banks in instalments. With time some of the beneficiaries have sold their houses and moved out from the village. The value of the property is currently estimated at 9 million RWF. In the village itself, it is not possible to purchase land. In the surroundings, the cost a building plot (20/30m) is around 4 million RWF.

As of housing quality, most of the houses if not all of them, are of the medium standard. First all of the size of the building plots and the house was small. The layout of the house adopted the typical Rwandan house. The house was composed of two parts: the main houses and the kitchen with a surface area of 36m² and 15m² respectively, this is a total of 61 m². Secondly the building materials used are semi-durable: the wall is made of compressed stabilised earth bricks that were not roughcasted, the frame of the shed roof was made of timber and the roof is covered with corrugated white iron sheets. The floor was paved but houses had no ceiling. Thirdly, houses had wooded door and window frames while the general trend is to have the metallic. Fourthly, were the typical house had only two sleeping rooms, while beneficiaries wished to have more sleeping rooms that could accommodate the all family. Those are some physical characteristics of the initial houses that beneficiaries were not satisfied with. But this is some too much demanding as some of the people who benefited from the programme were not living in houses of the same quality, but also the house had additional equipment. According to the groups of elder participants, most of the houses are of the medium standard while young

people consider them of low quality. This difference in perception might stem from the comparison elder people have with their former dwellings. Young people compare the neighbourhood with luxurious mushrooming houses in many places of Kigali. Moreover, houses have been improving from the ones bought to the city of Kigali. Changes were observed in modernising the houses especially the roof and adding more rooms, constructing fences as well as provision of infrastructure such as water, electricity, roads, etc.

Water

In Nyakabungo village, most of the residents buy water from public taps and others have piped water in their houses. Piped water is provided by the public utility, WASAC. When the village experience piped water shortage, people fetch water in neighbouring villages or collect water from springs located downhill. It is important to note that most of the houses in planned Batsinda are equipped with plastic tanks for rain water harvesting that were provided by the city of Kigali at the time of the construction of the settlement. Piped water is irregularly supplied especially during the long dry season. Respondents reported that water supply by WASAC is uncertain as water can be supplied only once a week, the situation can even be worse. In such case water supply becomes a big problem since people can pay 200 Frw for a jerrycan of water.

In *Nyakabungo* as in all urban areas as well, climate change also has contributed to the increased water shortages because underground water is not replenished, leading to water scarcity and increase of water bill. In dry season, a jerrycan can cost up to FRW 400 while it would normally costs RWF 20.

Power used for lighting and charging mobile phones

All the houses are connected to the electricity grid, and therefore all of them use electricity for lighting and charging mobile phones. When there is power outage people use electrical torches and mobile phones to light. Solar energy, generators, candle, kerosene lamp, paraffin and biogas were not reported to be used in lighting or charging mobile phones. Most of the respondents are not satisfied with electricity supply because of frequent outages which can even last several hours.

The area is well served with mobile phone signal coverage. Residents acknowledge that they receive the signal of all the three mobile phone operators namely MTN, Tigo and Airtel. In household there is at least one person who owns a mobile phone. Mobile phone is nowadays considered as a basic need. The mobile phone is used for calling, text messaging, listening to radio and music, etc. Business people use also mobile to declare taxes due to Rwanda Revenues Authority (RRA).

Fuel used for cooking

With changes from rural to urban area, *Nyakabungo* dwellers have been shifting from using firewood for cooking to charcoal. However, some few residents are still using firewood. Charcoal and firewood are both bought. According to participants in the FGDs, price of charcoal has been increasing over time, currently a sack of charcoal costs around RWF 8,000. In the planned area of *Nyakabungo*, houses are equipped with biogas system but the installation is incomplete and therefore not used.

Toilet/Sanitation

All households have private pit latrines. Very few have flushing toilets. The particularity of the houses built by *Batsinda* settlement program is that the hole is not directly under the toilet which necessitates the use of water even though they are not flushing as such. Latrines are attached to the same roof as the main house but their doors look the other side.

Most of households use either waste water channels or sumps to get rid of waste water. Houses in *Batsinda* settlement were equipped with sumps for waste water disposal but it was observed that some families throw waste water on courtyard and on the earth road to reduce the dust. Indeed, the morphology is that some houses' roof is situated at the same level as the access road which causes dust to be spread out. Domestic solid wastes are removed by a private company. To benefit of its service, each household pays RWF 2,000 per month. Solid wastes are removed two times a week and all participants in the FGDs convened that they are satisfied with the service rendered. However, few households dispose waste in their small gardens near their houses.

3.6.3. Livelihood and mobility

Income generating activities

As stated earlier, most of residents of *Nyakabungo* village came from *Kiyovu* and other areas within Kigali that have been redeveloped. Indigenous have been pushed out as they sold their lands to building plot seekers. Before the development of *Batsinda* site, the area was settled mostly by cultivators whose living conditions depended upon farming activities. Now, casual works in construction and retailing commerce are somehow the ones prevailing. In addition, some houses which were formerly residential have been converted in commercial for rent.

Services availability and income generating activities

The availability of public services is very much linked with the establishment of *Batsinda* settlement. It is when all public services were provided because before, the area was completely rural and somehow isolated from the city. Nowadays all basic public services are found in the

area namely piped water, electricity, and local transport. From then on, the availability of public services has been an important factor that attracts new dwellers in the village. It is important to mention that the city of Kigali's instructions do not allow commercial activities within *Batsinda* settlement, thus it is strictly for residential purpose. Nevertheless, the provision of public services has contributed to the creation of income generating activities all around the settlement. These include beauty salons, welding, carpentry, grain milling, bakery, vending of mobile services, transport services, etc. However, irregular supply of some of public services hampers those activities. For instance, when there is power outage, salons, welding, carpentry, and grain milling activities are stopped.

Urban transport, mobility and income generating activities

As for the other public services in *Nyakabungo* village, transport services have been boosted by the establishment of *Batsinda* settlement. The main road was constructed especially to allow supply of the site in building materials but has then been maintained as main access road to the village. The road is not tarred, very dusty during the long dry season and muddy during the long rainy season. During the FGDs, apart from the group of elder males who were moderately satisfied with local public transport, other groups were fully satisfied. According to the later, buses are available all time of the day though they have to walk around 15 minutes to reach the terminus of the line bus. There is also a straight bus line to *Nyabugogo* main taxi park from where they can link up to any corner of the city and parts of the country. People use also motorbike taxi to move from or into the area. The village is mostly supplied in fresh foodstuffs from rural areas, but also people from rural areas purchase some products for their domestic daily use in *Batsinda*. Other movements include relatives and friend visits both from and to rural areas.

According to interviewees and FGDs discussants, climate change contribute to the decrease of agricultural production and consequently, people move from rural to urban areas where they are lodged by their relatives and friends. Therefore, they become a burden for the hosting families especially during the time they are looking for jobs.

3.6.4. Future challenges

Present problems that have been reported to worsen in the future if nothing is done to solve them are piped water supply and roads. The group of men mentioned water supply while for women, road should be tarred and widened so the dust and traffic jam can be alleviated. The village should be provided with playgrounds and entertainment places, schools and hospitals. Such infrastructures and amenities are missing in the village.

For most of the residents, in 10 years' time, *Nyakabungo* village will have been gentrified. The current residents are aware that given the observed trends observed, they will not stay in the

village. There are already clues that show that multi-storeyed buildings will be erected in that area. The development of the city of Kigali is likely to be oriented in that direction because of flat terrain.

4. Musanze town reports

4.1. *Mugara-Nduruma* villages

4.1.1. Background

Mugara and *Nduruma* villages are located in Muhoza Sector, on the South edge of Musanze town. The study area is composed of two villages: *Mugara* and *Nduruma*. A large portion of both villages is located on a steep slope with a good view over the town and volcanoes, and are close to Musanze taxi park. *Mugara* is still under development while *Nduruma* is well established.

Before 2010-2011, *Mugara* village was fully rural with scattered settlement and thatched houses were still found there. Farming activities were prevailing. Some houses were covered with light whitish iron sheets but there was still traditional hatched houses dispersed in family banana plantations. Dwelling units were connected each other by narrow and sinuous paths. Some residents of the village had planted *Eucalyptus sp* as a way of valuing their land because that *Eucalyptus* is a tree species that grows quickly, used in construction but also as firewood. The demand was assured since the town was nearby and was developing but in other directions. As the village was not equipped with any public infrastructure, it did not attract the in-migrants, and was therefore settled by native who had a rural lifestyle so far though located within *de jure* legal urban perimeter. Because of sparse settlement, cases of theft were frequently reported.

The settlement of *Mugara* started in 2010 - 2011 after the master plan of Musanze town was approved. From that time house owners were prevented to repair or upgrade their dwellings. Any improvement of the existing dwellings requires formal approval by the district. Some residents of informal settlements mostly *Ibereshi* were then convinced that they will be compensated and asked to move out. This fear was confirmed when substandard houses were red-marked "*Towa*", that means the house has to be demolished. Anticipating the implementation of the town master plan, house-owners of substandard houses in *Ibereshi* sold their properties to rich people, and in turn purchased land in *Mugara*.

Mugara was preferred to other peri-urban areas for three main reasons. First of all, *Mugara* was planned to become the site of a new village under the villagisation policy. Indigenous who were living in scattered settlements were instructed to move to that place. Relocation was also encouraged by officials for security reasons during the fight against rebels infiltrated from Congo. In their mind, *Mugara*' and Musanze town's residents had the conviction that, sooner or later, the area would be provided with basic infrastructure such as electricity, piped water, street

network, etc. Secondly, there was plenty cheap land as the area had not been fully settled. Thirdly, because *Mugara* was the site of a new village, people could use construction materials they could afford without any fear to see their houses demolished by the district. Consequently, migrants from other parts of neighbouring sectors especially from *Rwaza* (Musanze district), *Vunga* (Nyabihu district), etc. acquired land in *Mugara* and settle there.

Nduruma village was also rural until early 1990 with the same characteristics as *Mugara* and was settled by native. But after 1994, because the village was sparsely occupied and there was much non built land, some of old case load returnees went to settle there. As usually, the price of building plot was negotiated between the landowner and the plot seeker. After the approval of the Musanze master plan, *Nduruma* also attracted residents from other urbanised neighbourhoods of Musanze, especially those who sold their properties to rich people interested in property development under Musanze master plan. Most of the people in *Nduruma* who sell their properties to new comers migrate to the Eastern province, where they can acquire wide land parcel for farming activities.

Currently, according to the residents of the two villages, the area has undergone tremendous good changes. First of all, thatched houses have been eradicated, houses covered with corrugated iron sheets and walls made of roughcasted mud bricks are the most dominant. Secondly, both villages have been provided with basic infrastructure such as electricity, piped water some access earth streets. Thirdly, there is also densification of construction in *Mugara* while *Nduruma* is fully constructed. Fourthly, the two villages are not longer settled only by farmers, but also trade people, construction workers, load carrier, etc are found there. Lastly because of the increase of population density, cases of theft has declined except in *Mugara* where some cases of robbery are reported.

The densification of population and constructions has contributed to the local climate and environmental change. According to the residents, the local climate is getting warmer than in the past. For them, the indoor temperature has increased to the point that in dry season they have to keep windows and doors open for cooling the house inside. The increase of the population has also led to the decrease of wooded area and considerable augmentation of built-in space.

4.1.2. Land, Housing and Services

Like in many other urban places, legal land ownership is a prerequisite to construct one's home in *Mugara* and *Nduruma* villages. Most of the current residents bought their building plots from the previous landowners. As for land, the price of building plots is always bargained between the land seeker and the landowner sometimes in the presence of two or three witnesses from each side. Once the settlement and the payment are done, the land right is recorded at the district land bureau. Indigenous continue to acquire building plots through the inheritance process but

this has considerably declined as many of indigenous do not have land to subdivide anymore especially in *Nduruma* village that is very densely constructed.

In *Mugara*, the first indigenous settlers who joined the village site acquired the building plot through land exchange but later this practice was abandoned for land purchase to avoid that previous landowners ended with many small fragmented landholding. Currently, purchasing bare building plots is still possible in *Mugara* while in *Nduruma* any land seeker has to buy property because there is no unbuilt land anymore. At the time of the study, a building plot (25/30 m) was cost around RFW 2,000,000.

In *Mugara*, most of houses are of low quality, but generally considered as acceptable. On average, most of the main houses have a surface area of around 60 m² while annexes are smaller. The main houses are rectangle-shaped and have gable or shed roofs. As more rich people move in the village, houses with cross-pitched roof are being constructed. Walls are made of mud bricks roughcasted and roofs are covered with simple light corrugated iron sheets, doors and windows frames are metallic. The floor is frequently cemented.

Most of the finished dwelling have also a separate annexe that is used mostly for cooking and sometimes have a bathroom. Annexes are also constructed mostly in mud bricks and are covered with iron sheets. To minimize cases of burglary in urban areas, metallic door- and window-frame are preferred to the wooded that easy to break. As the village is still under development, most of houses are unfinished and the area is served fresh earth narrow roads. Houses are frequently occupied before the complete finishing (See

Photo



14).

Photo 14: Finished house and unfinished house already occupied

In *Nduruma*, most of houses are of medium quality but building materials are quite similar to the those used in *Mugara*. It is however important to note that more compound are found in *Nduruma* since the area is well established. Houses in the compound are mostly occupied by tenants. Both villages are not planned, accessing one's home, people have to meander between houses especially in *Nduruma* because of high density of construction.

In both villages the self-built construction is the only mode of housing production as in all other urban unplanned settlements. The construction cost of houses are said to be cheap in Musanze compare to Kigali. Indeed, building materials such as stones for foundation, cooked and mud bricks, building plots and block cements on one hand and the construction workers' wages are lower in Musanze. It would be very reckless to give average price of a house in both villages, since the price is function of the amount paid for the building materials, construction works and equipment found in the house. The cost construction is also by the price of the plot which depends on the size and the distance to public infrastructure and the willingness or the pressure of the house-/ land-owner to sell his/her property. Furthermore, very few Rwandans keep record of heir expenditure even for expensive investment such a dwelling especially when it is self-built. House price rental is also lower in the peripheral neighbourhood, especially *Mugara* and *Nduruma*.

Water

Mugara village is characterised by a very loose piped water network, this is the case for other peri-urban areas. Some households are connected to the only WASAC water pipe that crosses the village. Households connected are those which are closer to the pipe. No illegal connection was reported. Residents said to have funded themselves the installation of the pipe. Thereafter, WASAC has generously installed one public water tap where households not collected to the pipe buy clean water. A tap caretaker, approved by WASAC, operates the public tap. A jerrycan is sold RWF 20. Unfortunately most of *Mugara's* residents find the price very high and would appreciate if it could be lowered to 10 RWF, but RWF 20 per jerrycan is the reference price fixed by WASAC all over the country. This is quite understandable as most of them, especially those who came from rural areas even first settlers who have free access to water from springs.

Mugara dwellers complain about irregular water provision. The caretaker in turn pays WASAC monthly bill.

Water supply in the village is erratic. At the time of the study, *Mugara's* residents said that they have not had water for more than a month. The alternative is to collect water from *Mugara* stream which is approximately 20 minutes away, but its water is polluted. Consequently, *Mugara* dwellers would like WASAC to regularly supply the area with water.

Water supply in *Nduruma* village does not differ much which the situation above described. The village has been provided with piped water before *Mugara* because it was densely populated and is closer to the urbanised core. *Nduruma* also faces frequent water shortage mostly in the long dry season. The difference with *Mugara* is that *Nduruma's* dwellers can collect water fetch to the very nearby police station which is more regular supplied. Otherwise, when there is no water at the police station, *Nduruma's* dwellers have also to fetch it from *Mugara* stream, or then look for it in the city centre.

It is important to note that in both villages, there are no private water vendors. The little willingness or affordability to pay such service may be the causes of such situation. Low number of population and therefore low demand can also be one factor, since water vending implies big investment and a permanent person at the vending point. Residents of the two villages have not also installed water tanks.

Power used for lighting and charging mobile phones

In *Mugara* village, few houses are connected to the electricity grid. This is quite normal as the village is under development. However it is worthy to note that it is not necessarily to have the construction finished to get connected to the electricity grid. Anyone who is capable to pay the connection can be connected provided that the house under construction is built with semi-durable or long-lasting building materials. In *Nduruma*, most of the poor households who settle the upper zone are not connected to the electricity grid. No illegal connection has been reported. People fear to connect illegally their houses because REG has put in place a prohibitive fining system. It was also noted that none of the connected household has contracted fire insurance. The two villages face electricity outages frequently in long dry season. Power outage also happens every time it is raining. Electricity is considered expensive since the tariff was increased from RWF 134/Kwh to 158.

People without electricity use kerosene lamps, torches, paraffin, and dry cell system for lighting. In the last case, 2 or 3 dry cells are fixed in a wood box that is connected to a network of extreme thin wires (found on local markets) with a variable number of appropriate very small bulbs (found in electrical torches). Switching on lights requires simply to connect positive and negative terminals. This system provides enough light to move easily inside the house the

house but does not allow reading. It is also very simple and secure as it cannot cause electrocution and fire. An initial amount of around RWF 3,000 is needed to have the system installed.

Electricity is the only source used to charge mobile phones. People living in houses without electricity charge their mobile phones to their neighbours or in the town. When phone charging is offered by young people in town, the client has to pay RWF 100. Mobile phone is now considered as basic need, especially for young people.

Mobile signal coverage is very good and residents have access to services offered by all the three mobile phone operators. The most common use of mobile telephone is calling and text messaging via various application. Young and educated people use the phone for sending and receiving money, listening to music, watching videos and taking photos, lighting, browsing internet, paying water and electricity bills, etc.

Fuel used for cooking

As expected, *Mugara* and *Nduruma* being peri-urban and settled mostly by low-income groups, firewood is the most used fuel for cooking. However there are some households which use charcoal mostly in *Nduruma* village. The two villages are supplied with firewood by people from neighbouring surroundings. Residents of the two villages said the price of firewood has considerably increased because of considerable deforestation. People use them because they still have rural lifestyle but the number of households which use charcoal goes decreases over time for charcoal.

Charcoal is used by well established households, rich migrants and some indigenous who have decided to shift to charcoal. On average, a household uses two or three sacks of charcoal per month. Charcoal is used cautiously because it has become very expensive. The price of a sack of charcoal has than doubled from 2005 to 2015, shifting from RWF 3,000 to 7,500. Charcoal used in the two villages is transported by load-carriers from the town centre. The fare of the transport varies according the distance travelled, but according to the residents, remote households can pay up to RWF 1,000. People whose houses are located near the access road pay motorbike tax since it is rapid and there is no need to run after as it is when one has to hire a load-carrier. Poor households have problems to easily have charcoal since there no charcoal retailers especially in *Mugara*.

Toilet/Sanitation

In the two villages, most of households have private latrines others share latrines. Most of the latrines found in the area are pit latrines, but there are some well-established households in *Nduruma* that own flushing toilets in *Nduruma*. Most of pit latrines are unfinished and

constructed apart from the main house. Walls of latrines are usually made of mud bricks and most of them have slab made of timber, but are not cemented. Roofs of pit latrines of unfinished houses do not have a covered roof. Therefore, people face problem to use them in rainy seasons.



Photo 15: Pit latrine under construction but already in use

In *Mugara* that is under development and even in *Nduruma*, there is no special structural works done to collect waste water. Waste water is thrown in gardens or then is channelled along the slope. Solid wastes are also thrown in gardens or deposited in dumping composts and later used as fertilisers. Banana, *Irish* and *sweet potatoes* and fruit peelings are used to feed animals. There is no company in charge of removing solid waste.

Asked to rank the public services that need the most improvement, interviewees and FGDs discussants ranked them in the following order: (1) regular water supply, (2) regular electricity supply, (3) road network improvement and sanitation. Mobile phone was not reported since the mobile network signal coverage is excellent. Schools and market were not also considered as priority because the residents of the two villages can access them easily.

Regular water supply is ranked the first because of its multipurpose uses: cooking, drinking, body and domestic hygiene, etc. The group of aged females made the following statement:

" ... This town is supplied with piped water comes from Mutobo stream. Its head is located far at the foot of the volcanoes near Gataraga. When the dry season is too long,

there is shortage of water shortage in the town, and many neighbourhoods are not served. Yet water is needed in everyday home's activities".

Electricity was ranked the second it impacts on the people's well-being. Moreover, with electricity, there is possibility to start some income-generating activities. Improvement of the road network was ranked third. It eases access to and within the neighbourhood. Finally improvement of sanitation was mentioned especially by interviewees from *Nduruma*. Indeed *Nduruma* is congested and faces more problems of sanitation especially the evacuation of waste water and the removal of solid wastes.

For *Mugara* and *Nduruma*'s residents climate change has affected the provision of public services. Climate change has contributed the decrease of water in hydropower dams and has led to frequent power outages especially in dry season. It has also impacted negatively piped water supply.

4.1.3. Livelihood and mobility

Income generating activities

The range of income-generating activities found in the village is not wide. Farming activities, construction works and small selling activities are the main sources of income. Farming activities are no longer the most prevailing because people can make their money doing other activities. Some indigenous women have shifted from farming activities to small retail trade. They head to the city centre every morning and sell fresh foodstuffs such as tomatoes, fresh or cooked maize, banana, sweet potatoes, fruits and other fruits. Men now search for jobs in construction works, and load-carrying or small trade. The change was consecutive to the conversion of agricultural land into residential land. Previous landowners cannot stand the prices that are being paid by new comers, and who frequently are rich. Some well-established landlords collect money from house rental either in the two villages themselves or in other villages. The few public servants and workers of the private sector (trade, hotel, restaurants and bar, etc) rely on their monthly salary.

Services availability and income-generating activities

For *Mugara* and *Nduruma*'s residents, water and electricity are not regularly provided to the both villages. Road network is also considered to be deficient. However, they believe that the quality of public services affects decision to live in this neighbourhood. For instance, *Mugara* did not attract migrants until it was provided with electricity. For most of residents, electricity and water provision in both villages have the most influential impacts. Unfortunately, provision of public services has not contributed to the creation of income-generating activities in the

neighbourhood. This is maybe because the area is still under development and closer to the city therefore people rely mostly on services offered in the town. Indeed Musanze is a small town and connecting to any neighbourhood from the city centre is very easy even by walking.

Urban transport, mobility and income generating activities

As stated earlier, *Mugara* and *Nduruma* has a loose earth road network. Entering *Nduruma* with car is not easy because the few existing streets are narrow and steep. As in the rest of the town, the two villages are not served by a line of public transport. When in hurry, people hire motorbike taxi to move to or from the neighbourhood, otherwise they walk. They cannot also use bicycle taxi but because of the steep. When *Mugara* and *Nduruma's* residents have to travel long distance, they use public transport. As stated before, Musanze taxi park is not far from the two villages.

Both villages have connections with other urban areas and rural areas as well. Residents of the two villages go to the town nearly on a daily basis for various reasons: buying or selling various products, searching for job, health care services, attending schools for children, sharing drinks with friends, etc. They also use to move to other urban areas inside the country especially Kigali and *Rubavu*. They mostly use travel agency buses. Connections with rural areas are dominated by family and friend visits. Friends and relatives based in rural areas use bring gifts made of fresh agricultural products such as *Irish* and sweet potatoes, banana wine, fresh maize, etc. In return, those living in the two villages give them some money that is considered usually as "ticket money" even when it is far higher. Some people also come from to the town searching for job and to sell some products such as fresh foodstuffs, firewood, etc.

4.1.4. Future challenges

Mugara and *Nduruma's* residents would like to see living conditions improved. The area is expected to modernise and be more provided with regular water and electricity supply, and the road/street network improved. Most of the respondents fear that they will no longer be living in the two villages in 5-10 years time as more rich people would be interested in developing the area following the town master plan. The area will be less wooded because tree cutting will be exacerbated by the rapid urbanisation. This will contribute to more local weather warming.

Most of the interviewees and the discussants would be happy if they could live in *Kizungu* and *Yaoundé* neighbourhoods. These are planned areas where adequate houses are found. They are equipped with road network, good schools, electricity, regular water supply. Most of wealthy people and civil servants in high positions live there. This statement shows that people living in informal settlements aspire better living conditions and when possible, to move to upscale neighbourhoods.

4.2. Nyarubande village

4.2.1. Background

Nyarubande village is located in Rwebeya cellule, Cyuve Sector, Musanze district, on the periphery north-east of Musanze Town and is crossed by the paved road joining Musanze town to *Gisoro* in Uganda. The site of *Nyarubande* is a flat and lava terrain. No stream crosses the village.

Before the urbanisation of *Nyarubande* village in 2000s, the area was rural, dominated by farming activities and settled by indigenous, most of them were living in houses of low quality, even traditional thatched houses were found there. *Nyarubande* was characterised by sparse settlement scattered in dense banana plantations. Electricity and piped water were found along the paved road where a row of small shops and bars were constructed. There were no entering street the village, households were connected each other by narrow and rocky paths. Some parts of the village were wooded with *Eucalyptus*. The area was not safe: it was infested by teams of thieves called "*Abanyarirenga*" who used to commit burglary or spoil travellers even residents. The town, however very nearby, exerted little influence on the village.

A radical change happened in early 2000s. Migrants from rural areas headed to the village, bought land, and started to erect modern houses. The first in-migrants were fleeing insecurity that was prevailing in their native area caused by infiltrated rebels from the Democratic Republic of Congo. Migrants headed to the village because land price was not high. In the initial phase, people were interested in land close to the main road because the area was more secure and more likely to be provided with piped water and electricity at low cost.

After the restoration of the security in 2003, *Nyarubande* village attracted more in-migrants. Even people from Kigali came to settle in the village. Gradually, more modern houses replaced old low quality constructions. The number of indigenous people then considerably reduced along the paved road. Most of them have sold their lands, migrated to remote areas or other neighbourhoods in the town. Currently, constructions are progressing rapidly northwards where land is still held by indigenous and is still affordable compare to the zone closer to the paved road that it is fully constructed, and *per se*, expensive. As more people settled in the village, wooded area has considerably been reduced, banana plantations have been cleared, and the band of robbers "*Abanyarirenga*" was dismantled. Gradually the village has been provided with piped water, electricity, roads, schools, etc. The village is now attractive and it is being settled by rich people.

Currently, *Nyarubande* is a modern, attractive and rapidly urbanising neighbourhood, settled mostly by civil servants (medical doctors, military, police) and trade people, secondly by car, motorbike and electrical appliances repairers (who call themselves "technicians"), construction

workers, and very few low-income earners. The neighbourhood is close to city centre and accessible by paved road. The village is equipped with piped water, electricity, roads, schools, and street lighting.

4.2.2. Land, Housing and Services

By 1990s, *Nyarubande* village was settled by native who had plenty of non-built land. Because the town was not expanding in that direction, people could negotiate land at very low price. Even some people who had relatively large plots could give pieces of land to their relatives or friends. Following the urbanisation of the area and the continuous huge influx of people interested in land acquisition, the land has become a commodity that is negotiated at high price. While it was possible to buy a bare building plot (20/30m) for less than 1 million RWF in early 2000s, a plot with the same size, is paid currently between 3 and 4 million RWF. Bare building plots are found on the fringe of the village. People interested in building plots in already urbanised area have to buy properties. The price of building plots depends on the size of the land and the property over it.

New comers generally buy old properties because they are less costly, demolish them and erect modern residential or commercial houses especially near the paved road. The previous landowner or property owners move in other peri-urban areas like *Kabaya* (in the south towards *Nyakinama* which is modernising because of the presence of a public high learning institution and a military academy), or *Karwasa* that is located about 3 km east but where it is still possible to acquire large land parcel. The price of building plots and properties is influenced by closeness to electricity low voltage line, piped water and roads.

In terms of housing, *Nyarubande* can be divided into two parts: the new and the old *Nyarubande*. In the new *Nyarubande*, the type of houses dominating is large or medium modern villa built in fenced plots with large metallic gates. Fences of properties are made of cooked bricks or cement blocks. Walls of houses are made of cooked bricks or cement blocks, and most of them are roughcasted and painted. Most of the house have cross-pitched roof covered with modern whitish or reddish galvanised corrugated iron sheets. Floor is cemented or covered with modern tiles. Such houses have wide metallic doors and windows frames with one-way window glasses of different colour. Most of the new houses have at least four bedrooms and two bathrooms, and have separate annexe for the servants (Photo 16 and Photo 17).

Construction is not expensive as in other parts of Musanze town since stones for foundation can be found in the plot, and sand and cooked bricks are found nearby. Lucky people even can find the sand in the plot. Construction workers are also paid less than in Kigali, for example, a mason

is paid RWF 3,000 per day while he is paid 5,000 in Kigali. Assistants are also paid lower wages compare to the ones paid in Kigali.

Most of the houses are predominantly owner-occupier, but some house are rented to middle- and high-income earners, usually public servants or traders have not yet built their own houses in Musanze town or in its surroundings. Though the village has developed spontaneously, near all house-owners have managed to have their plots served by narrow vehicle street. Access by car is always possible because streets are naturally paved with lava stone, and there is no risk of slipping in rainy season. Street lighting has been installed along the main access roads. All houses are connected to electricity grid and water piped network. The new *Nyarubande* is residential, commercial houses are found only along the paved road.



Photo 18: General view of recently developed zone of Nyarubande village



Photo 19: Example of typical houses being constructed in Nyarubande

Old houses of low quality, occupied mostly by indigenous or the first comers in the village, have

been push on the periphery north. This is the old Nyarubande. Houses are small, built with cheap building materials (light corrugated iron sheets, mud bricks, doors and windows wood frames), and fenced with piled lava stones without any mortar (*Photo 20*). Because of little maintenance some of such fences are near falling down. Some of the house are connected to the electricity grid.



Photo 21: Old houses occupied by indigenous or first comers

The rapid urbanisation of *Nyarubande* has contributed to the local environmental and climate change. The conversion of agricultural land in-built area, clearing banana and *Euclayptus* plantations, and waterproofing of huge space has increased the heat absorption by the bare ground. Heat absorption is exacerbated by the black lava that behaves as a blackbody which absorbs near all heat. Consequently, residents said that local weather is get warmer and indoor temperature has changed upwards.

Water

Residents of *Nyarubande* use water from WASAC piped water network, public taps, springs and *Mpenge* stream.

All households in the new *Nyarubande* are connected to WASAC piped water network while very few are connected in old *Nyarubande*. Piped water supply is irregular: residents said that they can spend more than three days without any drop of water in the pipe mostly in the long dry season (June-October). They said that collecting water from WASAC network is very difficult

since water is supplied mostly in late night hours. Servants used to keep the tap open in night so they can hear water drop when water is supplied, then get up and collect the precious liquid. As water supply in the village is erratic, house-owner should install polytanks, to overcome the irregular water supply. Unfortunately this is not the case in New *Nyarubande* where very few houses have plastic tanks. Households not connected to WASAC piped water network collect drinking water to public taps located near the paved road. A jerrycan of water is sold RWF 20.

When there is water shortage, all residents of *Nyarubande* fetch water from springs or *Mpenge* stream. Water from springs is free of charge. As expected, people have to queue for many hours to get water. When there is no water in springs, but this occurs very rarely, people use water collected from *Mpenge* stream that is located around 20-30 minutes far from the village.

According to the residents, water from *Mpenge* is not appreciated because non clean. Once such water is used for cooking or washing clothes, food or clothes get a strange colour. It is not clean water but people are in the obligation of using it, especially the poor people living in the old *Nyarubande*. Rich residents hire cyclists to supply them with drinking water. The cyclist is paid 100 RWF per jerrycan.

Considering the pace at which the village is developing WASAC should assure a regular water supply to the village. But individuals can also invest in piped water collection and vending. Authorities should impose to equip all new constructions with at least 5,000 l or more water polytanks that can be used also for rain water harvesting. This can be put in the requirements to be granted construction permit.

Power used for lighting and charging mobile phones

As earlier stated, *Nyarubande* is connected to electricity grid. Near all the residents have electricity in their houses and use it for lighting and charging mobile phones. As in other parts of the town, the area faces frequent and unannounced electricity outage especially between 6:00 pm and 10:00 pm. Residents wonder if electricity shortage stems from rationing available power or if there are other some technical problems. They wonder why REG doesnot provide any explanation. To our knowledge Rwanda faces a electricity shortage at national level, therefore REG has to ratio electricity to ensure an equitable distribution all over the country. When there is power outage, *Nyarubande's* residents use kerosene lamps and torches. Rich people have generators while the poorest families use candles.

Electricity is used for charging mobile phones. In new *Nyarubande*, all households have more than 2 mobiles phones: one for the husband, another for his spouse and others for the children. In old *Nyarubande*, most of households have at least one mobile phone. Residents of *Nyarubande* are satisfied with mobile signal coverage since they can use Airtel, MTN and Tigo anytime. Mobile phone is used for calling and text messaging, money transfer, banking, paying electricity

etc. Business people use the mobile for fiscal declaration to Rwandan Revenue Authority (RRA) and paying due taxes. Many of the interviewees said that it would be very stressing if they has to spend one day without phone signal.

Fuel used for cooking

The most common fuel used for cooking is charcoal, however some households still use firewood. Rich people use to buy sacks of charcoal while poor people buy small quantity to retailers. Charcoal stores are found along the main paved road and frequently transported inside the village by load-carriers. Amount paid to the load-carrier depends on the distance between the store and the buyer's home but generally is around RWF 300. Charcoal is becoming the most fuel used for cooking because firewood has decreased drastically and has become very expensive. Even most of residents of the old Nyarubande have shifted to charcoal. Firewood is also considered as a unclean source of energy: it incommodes houses occupiers and neighbours and can be a source of respiratory diseases when used in poorly ventilated kitchen. Though rich people are settling in *Nyarubande*, few of them use modern sources of energy such as electricity and gas.

Toilet/Sanitation

Sanitation is not a problem since all households have latrines. All modern houses are equipped with flushing toilets especially in the new *Nyarubande*. People living in modern houses claim strongly year for a permanent piped water supply to maintain the toilet clean and safe. Poor people still use private pit latrines, and the extreme case, pit latrine is shared. As in other lava zones, pit latrines are not deep because the rock is hardly breakable. The depth of pit latrine hardly reaches 5 m. Moreover such toilets have slab made of wood not cemented in most of the cases. These latrines are not appreciated as they exhale bad smells which incommode the residents. Some pit latrines are of poor quality.

In the new *Nyarubande*, waste water from is channelled into sumps which also collect rain water from the roof. Though the rock is solid, house-owners accept to pay much money to dig sump to avoid disputes with their neighbours. Moreover having a sump for waste water and rain water collection is one the requirements to be granted building permit. It is important to note that people who erect houses in *Nyarubande* have to apply for building permit issued by the district. In old *Nyarubande*, as the residents still have not fully developed plots, waste water is thrown either in the courtyard or in garden.

Removal and disposal of domestic solid and commercial wastes are done by a private company. Wastes are filled in used sacks, grouped in one site and a truck collects them every Friday. To benefit from the private company's services, every household pays RWF 1,000 per month. Some households find this amounts high but others are satisfied with the monthly fare.

"Some people can argue that all RWF 1,000 is not a big amount. However we do not have the same financial capacity. Some individuals can feel simple to pay that amount, others can take it as a burden for them. But on my side there is no problem. It is good to have those people to remove the wastes. They have also to be paid for. Nothing is free of charge in present days, particularly in urban areas " (Aged females, 38 years old).

Some households throw biodegradable wastes in their gardens.

4.2.3. Livelihood and mobility

Income generating activities

The main source of income of *Nyarubande*'s residents is first monthly salary. All public servants and residents working in the private sector rely on their salary though they can have other side lucrative activities but these are not known to the interviewees and discussants of different FGDs. Trade people who owns shops in the city or commercial activities rely of benefits. Business people have much opportunities as they can exchange products with Uganda, the city of Kigali and supply the rural hinterland.

Residents of old *Nyarubande* gain money from casual works mostly in the construction. Some work as masons or assistant masons. In Rwanda, assistant masons are unskilled workers who can do any basic work in construction such as terracing building plot, mixing sand and cement, transporting building materials on the building site, carrying water to the construction site, etc. As the village is under development, there is opportunity to get casual works. The mason is paid RWF 3,000 per day and the assistant 1,500 per day. Technicians make their money by offering services, however their income varies according the services offered.

There was a professional shift: some former farmers are now working in construction activities either as masons or assistant masons or other related activities. Some young people have are working as load-carriers in the town, while others migrate to Kigali searching for job opportunities.

Services availability and income generating activities

Nyarubande is equipped with electricity, piped water, mobile phone, schools, roads, etc. Other services that are not available in the village or in the surroundings are found in the city centre. Those are health care centre, banks, wholesale and some other specialised services. The only public service that is not available in the village is the public transport.

According to the *Nyarubande's* interviewed residents, the services that need the most improvement are regular piped water and electricity supply. The availability of such public services affect people's decision to settle in the village. In the early 2000s, when a large part of *Nyarubande* was not provided with electricity and piped water, the number of migrants joining the village was very small. With the provision of the electricity and piped water, migrants people rushed in the area. Nowadays, *Nyarubande* is among the most attractive neighbourhoods of Musanze town because of water and electricity supply, street lighting, schools, etc.

Provision of public services has contributed to the creation of income-generating activities. For instance, following the provision of electricity, beauty salon, small welding units, carpentry units, grain mills, bars, electric and electronic repair works, mobile services etc have emerged in *Nyarubande*. They have attracted people to work in these activities.

Urban transport, mobility and income generating activities

As other parts of Musanze town, *Nyarubande* is not served with a public bus transport line. However as stated earlier, public transport is not a big problem since people can easily catch a minibus coming from *Cyanika* (near the border with Uganda) and pay 100 RWF to reach the city centre and vice-versa. Alternatively, residents of *Nyarubande* can also use motorbike or bicycle taxi to travel in the surroundings or to connect with other parts of Musanze town. The normal fare of a one-way from *Nyarubande* to the city centre by motorcycle taxi is RWF 300, and 100 by bicycle. When needed, one can also hire a taxi cab. The fare for one-way travel *Nyarubande* to the city centre by taxi cab is RWF 2,000. People not in hurry use to walk to city centre, and walking is not exhausting since the terrain is flat.

When *Nyarubande's* residents have to travel outside Musanze town, they normally use public transport. It is easy to connect with any part of the country since there is regular shuttle connecting Musanze town to the city of Kigali, *Rubavu*, *Cyanika* at the border with Uganda, *Vunga* in the south (Nyabihu district). For areas not served with public transport, *Nyarubande's* residents can use taxi cab, motorbike taxi, or bicycle taxi when it is nearby. Of course the mode of the transport depends on one's financial capacity and the urgency. As any elsewhere, public transport is the cheapest. For instance one-way fare to travel to Kigali is RWF 1,800 by public transport while it is around RWF 50,000 by taxi cab.

Rural-urban connections are dominated by foodstuffs supply from rural areas. However, some farmers from the village move to rural areas for ploughing their lands or searching for agricultural jobs. Some public servants also commute daily because their working places are in neighbouring rural areas. Since the village is populated by migrants from many parts of the country friendly visits are frequent in both directions.

Nyarubande's residents stated that climate change has impacted on the availability of foodstuffs. They said that, following the June-October dry season, yield of *Irish potatoes* has drastically decreased. Consequently, the price of *Irish potatoes* and vegetables has increased. Wood clearing has also prevented people to sell firewood and wood for construction, in other words, indigenous people have lost one source of income.

4.2.4. Future challenges

For future plans, residents of *Nyarubande* have said that improvement is needed first of all for water supply, secondly electricity, thirdly sanitation, and lastly road improvement. People are satisfied with services offered by the three mobile phone operators since their networks are always available.

Regular and electricity supply were ranked as the public services that need the most improvement because *Nyarubande* experiences frequent water shortage and electricity outages. This impacts on the people's comfort. Water shortage increases money paid for getting water for domestic use and some activities cannot be done. Electricity outage is detrimental to business: welders and barbers for instance cannot work without electricity. The use of generator impacts negatively on the benefits since petrol is more expensive than electricity.

Climate change has affected public services provision. For instance weather warming has contributed to irregular piped water and electricity supply in last past years. Consequently, regular water supply was ranked as the public service that needs the most improvement.

According to Musanze master plan and views of *Nyarubande* interviewees and FGD discussants, in 10 years time, *Nyarubande* is expected to be a very upscale neighbourhood. It will be settled by affluent people. Indigenous and low-income people will no longer be settling there. Many of the members of the FGD firmly stated that they will move out and will settle on the edge of the town, likely in *Karwasa*.

Most of the respondents would be happy if they could live in *Kizungu* and *Yaoundé* neighbourhoods. These are planned areas where adequate houses are found. They are equipped with road network, good schools, electricity, regular water supply. Most of wealthy people and civil servants in top positions live there.

4.3. Rukoro village

4.3.1. Background

Rukoro village is located in Mpenge Cell, Muhoza Sector, in Musanze town. Its total surface area is around 30 Ha. The village develops over a flat terrain with and has agrid plan with right

angles at street junction. The area was given the name Rukoro because it is totally covered with lava stones known as "*amakoro*" in Kinyarwanda. Indeed the half east of the village was too rocky that it was not developed until late 1990s when first migrants started to settle the area. The village is popularly known as *Ibereshi*, which is adaptation in *Kinyarwanda* of "*Camp Belge*" (Belgian camp), term used in the colonial period to design urban zone settled by Rwandan clerks who were working for the colonial administration. The first Asians who came to Musanze town in the early 1900s for trade were instructed to settle in that village. As most of them were Muslims, the area came to be referred as Islamic neighbourhood. The first Rwandan who converted to Islam joined also the village. The integration of Rwandans newly converted was eased by the Asians who use to employ them in their business or as servants.

After the German were defeated and fled the country, the new colonisers, the Belgians established the "*Camp Belge*" for Rwandan clerks. Among the first group of people who settled the village included also indigenous relocated from a place called "*Groupement*" which hosts now a police station. The place is where Rwandans selected to be sent to work in mining in the Democratic Republic of Congo were grouped and prepared for the new life.

Till mid-1980s, *Rukoro* was separated from the commercial zone by a non built public land. From 1985 the department of town planning of the former Ruhengeri Prefecture allotted the hinterland to beneficiaries. The area was then serviced and building plots were then allocated to beneficiaries.

The built environment has changed over time. For instance, grass houses that could be seen in 1990s have been eradicated. The old houses built in the colonial era that were occupied by Rwandan clerks have been sold at auction by the government have been replaced by more adequate new houses. Now rich people are erected multi-storeyed buildings in the village (*Photo 22*). Cement blocks and cooked bricks are becoming the most common construction materials of walls. Even a new mosque is in the final stage of completion. Some roads have been paved. *Rukoro* is now well integrated in the core urban area of Musanze town. It is a planned area with a perfect gridiron layout pattern, with many businesses. The village is experiencing a rapid development in housing and service provision. The area is also said to accommodate female sex workers.

4.3.2. Land, Housing and Services

Rukoro is a well established settlement that can be divided into two distinctive parts: the old *Rukoro* and new *Rukoro*. The first settlers who established in the area in the colonial period were allocated building plots free of charge by the colonial administration because the site was a vacant land. This is the case in the old *Rukoro* which was in place since the colonial time and sometimes is referred as *Muslim neighbourhood*. People were given large plot, indeed there was population pressure.

In the new *Rukoro* that was allotted by *Ruhengeri Préfecture's* department of town planning in 1985, the first beneficiaries were also given building plots free of charge since the plots were demarcated on bare land. However they had to pay small amount of money for plot registration and servicing. Some people who had acquired such plots but who could not able to develop them according the urban standards sold the plots acquired. The price varied according the location and need for the seller, but in late 1980s a building plot (20/20m) was sold around RWF 120,000 be the equivalent of \$150 (\$ was exchanged at around RWF 80). Currently due to the continuous high influx of migrants, the village is nearly fully constructed. It is not easy to find a bare building plot in both part of *Rukoro*. According to *Rukoro's* residents interviewed, if a bare building plot was found in the village, it would cost between 4 and 5 million of RWF, the estimation was based on price paid in neighbouring villages.

The only solution to acquire building plot in *Rukoro* is to purchase property. Property price is agreed upon through bargaining. As modern buildings are mushrooming, property price is also increasing. People who sell their properties mostly head to *Karwasa* that is a neighbourhood located on the north-eastern edge of the town. According to Musanze town master plan, only multi-storeyed buildings are authorised in *Rukoro*, the ground floor will serve for commercial purposes while the upper floors will be dedicated to lodging.

In old *Rukoro*, most of the houses were built before 1980s. Some date back before the independence, especially in the zone commonly referred as *Ibereshi*. All such houses are small old single-storeyed houses, with walls made wood/mud or lava stones. Very few have walls built with mud and burned bricks. Most of them have a gable roof covered with old iron sheets. Many of them are compound houses. The number of sleeping rooms varies from two to three, but some may have four. When the plot has not been developed as compound, there is always a main house and an annexe. The annexe is used for cooking and hosting the servant. Houses with walls made of cooked bricks were occupied by public servants until 1995. They have now been sold at auction by the Government. The zone is very congested but some houses and compounds are in decay since the owner are not authorised to upgrade or repair them because the area is under redevelopment. Though such houses have become decrepit, there are still occupied, either by the house-owners or the tenants.

Houses built between 1985 and 2000 are found in the hinterland between the old *Ibereshi* and the commercial zone. As stated earlier, before 1985, this area was not built. It was covered with lava stones scattered with prickly plants called "*igisura*" in *Kinyarwanda*. The area was not developed because there was still plenty public land that were allocated to people who wanted to construct formal houses, but also the growth of the town was slow. The zone was allotted in early 1985 because many people had applied for building plots and the area was empty. Parcel demarcation and street road design were done by the staff of the *Ruhengeri Préfecture's* department of town planning. The layout was approved by the Ministry of Public Works and

Energy (MINITRAPE) which had town planning and development in its prerogatives. Applications for building plots and building permits were then channelled to MINITRAPE via the same department of town planning.

People who were attributed building plots had to built houses meeting the standards stipulated in the construction permits. Most of plots are fenced with cooked bricks and simple but large gates to let the car enter the premises. Some houses are self-contained while in others, property owner separated the main house from the annexe. In both cases, the main houses are rectangle-shaped, with walls made of cooked bricks or lava stones and exceptionally mud bricks, and gable roof covered with iron sheet. They have metallic window and door frames with transparent white glasses. The number of sleeping rooms varies between three and four. Such houses were considered modem at the time of their construction. Even now they are adequate. Monthly price rental is usually above RWF 100,000.

Following the adoption of Musanze master plan in 2010-2011, *Rukoro* will be redeveloped. The redevelopment is planned to start in the old Ibereshi where old houses have to be replaced by multi-storeyed buildings. Houses to be demolished in the old *Rukoro* have already been remarked "*Towa*", meaning simply that such houses have to be demolished. Already some old properties has been sold to property developers who have constructed three- or four-storeyed buildings. In the future there will be anymore single-storeyed house in *Rukoro*.



Photo 23: Old houses that have to be replaced by multi-storeyed buildings like the one on the right side

Though *Rukoro* village is planned, with a regular gridiron layout, commercial and residential houses are mixed. The commercial constructions most found in the area are bars and small shops especially in old *Rukoro*. Many residential houses have also small frontage shops where residents can buy basic products such fresh foodstuff, rice, sugar, cosmetics, etc (*Photo 24*).

Water

Rukoro, being one of the oldest neighbourhood of Musanze town, is among the first village to have been connected to WASAC piped water network. Water comes from *Mutobo* water treatment plant built in *Gataraga* sector, approximately 15 Km far in the north-west of Musanze town. Most of households in *Ibereshi* have water in their premises. All houses in new *Rukoro* are connected to WASAC piped water network. People without water in their premises, collect it from public water taps. A jerrycan of water is normally paid RWF 20. Poor residents would like to see it lowered to RWF 10. No water tanks were found in the village. When there is no piped water in the neighbourhood, people use water from *Mpenge* stream or *Kigombe* which are not far. However water from both stream is not clean.

In past years, water was permanently supplied, but in present days the village faces frequent unannounced water shortage. *Rukoro's* dwellers as other residents of Musanze town who face that problem wonder this is due to the population increase or other technical problems of the water plant. The population of Musanze town has more than tripled from 1990 and, to our knowledge, *Mutobo* water treatment plant has not been upgraded consequently.



Photo 25: WASAC water kiosk and a frontage foodstuffs vending

Power used for lighting and charging mobile phones

The area is connected to the electricity grid since late 1970s, and as expected most of households use electricity for lighting and charging mobile phones. Nevertheless, poor households still use candles and kerosene lamps for lighting. These are households headed by very poor people or old people with very little financial capacity.

The group of elder females reported that there is frequent power outage from 7:30 pm to around 10 pm. *Rukoro's* residents do not understand why there are unannounced electricity outage

while there electricity post in the village. Because of the prepaid system that is used, households could not tell the approximate amount they monthly pay for electricity as they pop-up every time needed. Pop-uping electricity is not a problem since people pay electricity with their mobile phones, or just move to next shop where they can have electricity pop-up services. Many shops in the village offer that service.

The residents are satisfied with mobile service as the network signal coverage is very good for all the three operators. Most of residents have mobile phone. The most common uses are calling, text messaging, lighting, listening to radio and music, money transfer, mobile banking, paying electricity, etc. It goes without saying that mobile phone is considered as a basic need in the village. Near all young people manage to have at least one mobile phone. Mobile phones are more affordable that in the past because the import of cheap mobile phone made mostly in China. Nowadays, it is possible to get a new mobile phone at RWF 10,000 what was not possible 10 years ago.

Fuel used for cooking

The most used fuel for cooking is charcoal, but there are very few households which still use firewood. As in other parts of Musanze, a sack of charcoal costs around RWF 7,000. The large use of charcoal in *Rukoro* is understandable since the village is among the first urban neighbourhood which adopted urban lifestyle. Charcoal stores are found in the village. Poor people can buy small quantity near retailers for immediate use. Here retailers sell charcoal per kg, 1kg of charcoal is sold around RWF 300.

In the past most of the households were using firewood, but following the deforestation in the nearby villages which resulted in increase of firewood price, people have gradually shifted for charcoal. Cooking is done in annexes, and in houses without annexes, cooking is done outside. When it rains stoves are moved inside the kitchen or the main house.

Toilet/Sanitation

Sanitation is said not to be a major challenge thanks to the administrative leadership which sensitises the population to seriously take care of all aspects of sanitation. All households have latrines. Most of them are pit latrines. New houses are all equipped with flushing toilets. People living in compounds frequently share latrines. This is common in Rwandan urban areas. As lava rock is very solid, residents cannot dig deep pit latrines. Public latrines are also found in the neighbourhood. They are said to be not clean. However, for the group of elder males, more public latrines are needed as there are many people from outside the neighbourhood who have problems to find a latrine.

Very few households have sumps for collection of waste water. Most of them throw waste water outside and it quickly infiltrates because of high lava porosity. Domestic and commercial solid wastes is removed with a public truck. Sacks of solid wastes are grouped on known sites from where they are collected from and put in the truck. The monthly subscription to benefit from such service varies between RWF 1,500 and 5,000. People who run businesses are the ones to pay RWF 5,000. There are some households which still throw domestic solid wastes in gardens.

4.3.3. Livelihood and mobility

Income generating activities

There is a wide range of income generating activities in *Rukoro*. These include trading, lodging, rental housing, and informal works (laundry cleaning, construction works, retailing, repairing, tailoring, farming activities, etc).

Trading activities are concerned more with operating small shops, bars and small restaurants, frontage shops and street vending. Shops and frontage shops are usually run by owners. As they are small, no aids are required. The range of products sold is wide. It includes processed foodstuffs (rice, white sugar, pastas, cooking oil, ingredients, etc.), cosmetics, electricity services, mobile phone top-up cards, etc. Bars and restaurants employ around five persons mostly young people less than 30 years old. Local soft drinks and beers, and meat goat kebabs are products mostly served in bars. Restaurants serve local meals made of rice, beans, *Irish* potatoes, bananas, beef meat, eggs, etc. The price of a food plate varies between RWF 200 and 800. Street vending is done by few women. Foodstuff and products are exposed on a simple wood table. Though local authorities would like to ban such retail commerce, but still some cases can be observed.

Lodging is another activity found in the village. There are some cheap lodges where people can stay for some days. The fare per night varies from a place to another. Some of the bars offer cheap accommodation especially for young people.

Rental housing is a well represented income-generating activity in the village, especially in the old *Rukoro*. As stated earlier, many house-owner have built compounds on their plots. Rental housing is seen as a way of making easy money in informal settlement. Because of loose inspection, owners of building plots have erected small annexes to be rented to low-income earners or to the poor fresh in-migrants. Some house-owners have 2 or 3 rented small annexes on the same plot they live also live. Rental price of such annexes is very low. Some of them are occupied by female sex workers. Interviewees said in this case, the monthly rental price varies between RFW 15,000 and 40,000. As elsewhere, the larger and the more comfortable the house the higher the price. In the new *Rukoro*, as houses are bigger, new and better equipped, the monthly rental price can go beyond RWF 100,000. There are also some house-owners who rent frontage shops. Rental price of shop is higher than rental housing price.

Because the area is under redevelopment, construction works are also sources of income for masons, assistant-masons, carpenters, welders, etc. Casual workers are recruited on a daily-basis and do not have to reside necessarily in the village..

Informal works such laundry cleaning, construction works, retailing, repairing, tailoring, are also visible in the area. Most of them are home-offered. Repairing place (for radio, watch, radio, etc.) is frequently showed by a small signboard posted on the front wall. Farming activities has totally disappeared from the village because all land nearby has been constructed.

Services availability and income generating activities

All public services (electricity, piped water, schools, health clinics, market) are available or very nearby except public transport. But as stated earlier, publictransport is not needed as the area is closed to the main road from Kigali and Musanze taxi park. The availability of public services affect people's decision to settle in *Ibereshi*. The neighbourhood was among the first one to attract more people from rural areas because it was provided with such services.

Public services availability has impacted on income-generating activities in the neighbourhood. For instance with regular electricity supply, selling fresh milk, welding, hair dressing, internet cyber cafe, charging mobile phones, selling electrical services via prepaid system etc. are possible. When there is electricity outage, some services cannot be offered. In addition with permanent electricity supply, people can run their business more hours a day. Interviewees and FGDs discussants consider that regular water and electricity supply are essential for the development of any village.

Urban transport, mobility and income generating activities

There is not public bus line transport in the neighbourhood. This is not particular to *Ibereshi*, it was noted that there is no urban public transport in Musanze town. To move to and from *Rukoro*, people walk, or when in hurry, they use motorbike taxi. One-way motorbike travel from downtown is between RWF 200 and 300, 300 is paid normally in night hours. People can also use bicycle taxi as the village is flat. However drivers have always to pay attention because of right angles that do not permit good visibility. At the time of the study, road network was being improved and some of them tarred. In coming months, moving in the neighbourhood will be smooth.

Retailers from *Rukoro* go regularly to rural markets of neighbouring districts (*Gakenke, Burera, Musanze* and *Nyabihu*) to buy foodstuffs (sweet potatoes, beans, maize, bananas, vegetables, etc.) that they sell in *Rukoro* and *Musanze* market. Sometimes, farmers also come themselves to sell fresh foodstuff in the village. *Rukoro's* residents pay friendly visits to relatives living in

rural areas, but the same movements are observed in the reverse direction. Usually, people coming from rural areas use to bring fresh food to their relatives and friends who are in town and in return, they give them some money considered as return ticket even though sometimes the amount offered can be higher than the real return ticket. Movement of women coming from rural areas to *Rukoro* has been also observed. Such women are mostly employed in clothes washing and housekeeping. They go back to their villages in the afternoon once the job is completed.

4.3.4. Future challenges

Public services that have priority for improvement can be ranked as follow: the first is regular piped water supply, the second is adequate sanitation, the third is electricity and the fourth is local transport. Mobile network is good and therefore does not deserve any priority for improvement.

Regular water supply is ranked first because the neighbourhood experiences water shortage, and this lead people to use water from *Mpenge* or *Kigombe* streams. Access to clean water is a basic need as use of unclean water can harm human health because of water borne diseases. WASAC should also explore the possibility for lowering water price especially for vulnerable households.

All interviewees and FGDs discussants are unanimous: the climate change is perceptible through the lengthening of the long dry season and great climate variability. For them climate change affects public services provision, especially electricity and water. When there is low rainfall and excessive long dry season, piped water and electricity supply become erratic because there is little quantity of water than needed, and therefore water treatment plant and hydropower plant production decreases, leading to rationing the supply.

In 10 years' time, *Rukoro* village will be a very modern neighbourhood with many multi-storeyed buildings and more businesses, and good roads. Only rich people will be living there. Most of the current residents think that they will have sold their plots and moved in rural areas or less gentrified urban neighbourhood like *Karwasa* that is nearby neighbourhood where it is still possible to acquire land at affordable price.

Asked on the neighbourhood they would like to stay if there was no constraint, most of the interviewees and FGDs discussants said they would be happy if they could live in *Kizungu* and *Yaoundé* neighbourhoods. These are planned areas where adequate houses are found. They are equipped with road network, good schools, electricity, regular water supply. Most of wealthy people and civil servants in top positions live there.

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