

Diversification of Population and Capital to ‘Peri-urban Magnet’, Invasion of Farmlands and Threat to Rural Livelihoods in Kenya

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Abstract

In Kenya, there is an emerging phenomenon where population and capital are migrating from the core city and from the rural zone to the rural urban interface. Therefore, besides the rural and urban magnets, a third magnet is evolving; viewed as the ‘peri-urban magnet’. Using evidence from recent research findings by the author and augmented by data from desk-based literature review, this paper identifies the steps involved in the formation of the ‘peri-urban magnet’ and demonstrates why and how the magnet threatens rural livelihoods. Due to urban and rural zones occurring as separate enclaves in some societies, developers tend to avoid the often-regulated urban core in favor of the less regulated rural-urban interface in order to maximize profits. Also, the middle class detest congestion and crime in the core areas of the city, yet, they cannot afford alternative homes in the less congested and fairly quiet areas of the city; for example, Karen and Muthaiga in Nairobi. For this reason, areas outside the city become attractive to the middle-class because such areas are fairly quiet and developers have the freedom to build houses of their taste. Home seekers, labor, speculators, real estate investors and infrastructure providers agglomerate in and around the ‘peri-urban magnet’ in a circular, causative and cumulative process. For this reason, this paper establishes that the ‘peri-urban magnet’ is attractive and invasive, making horizontal incursions into the rural zone and, thus, consuming farmlands and threatens food security and rural livelihoods. To avert the catastrophic process, policy must review the urban rural relations.

Keywords: Urban-rural, duality, migration, ‘peri-urban magnet’, threat, rural livelihoods

INTRODUCTION

The fact that urban and rural settlements exist as separate entities worldwide justifies the coining of terms; rural-urban ‘divide’, rural-urban ‘continuum’ and urban-rural ‘linkages’ to denote the relationship between the two zones. In Kenya, urban and rural areas are assumed to occur as distinct landscapes; separated by administrative boundaries, managed by different institutions, promoting different land use objectives and subjected to different regulative instruments. During colonial and earlier periods of post-colonial era, up to 1998, land use planning in Kenya excluded most of the rural areas especially areas formerly occupied by Africans. In 1996 and in 2019, the Physical Planning Act and the Physical and land use planning Acts (Kenya 1996, Cap 286; PLUPA 2019) were enacted to cover planning in all areas of the country in order to, inter-alia, harmonize the ‘divide’ in land use management

(Ayonga, 2021). Despite this effort, land use regulation in rural areas remains ineffective to date because the new land use laws came late when development had already taken place and when land is already held in private hands. Although the constitution provides for compulsory land acquisition to advance town planning, provision for budget to facilitate compensation for those who lose their land was not anticipated in the laws. Variations in development pathways and development control models between the two space enclaves then makes the rural model cheaper; a factor that promotes land speculation in areas out of the city and real estate investment as developers seek to maximize profits (Ayonga, 2013; 2015). This process leads to the formation of a mixed landscape at the rural urban interface that is neither rural nor urban.

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In cities of Europe, Asia, middle East and South America, migration of people from the urban to the rural urban interface has been going on for a long time as urban sprawl (Mubarak, 2004). However, in countries that are still stuck in the traditional rural-urban duality, areas of sprawl occur inadvertently and unnoticed within the urban-rural interface and as a separate landscape of 'mixed' land use (Tacoli, 1998; Ayonga, 2021). For this reason, the emerging 'mixed landscape' qualifies to be seen as a third magnet, adding to the already known rural and urban magnets (Ayonga, 2011;2021). The conceptualization of the 'peri-urban magnet' as a third sector then brings new knowledge hitherto unknown and threatens to change the way we perceive urban and rural relations and their outcomes. For example, theories on migration assume that people and capital always traverse between the urban and rural and vice-versa in what is known as rural urban migration or reverse migration from urban to rural areas (Todaro, 1984; Ouchou, 1996). The inclusion of the 'peri-urban magnet' into the menu of space landscapes then allows researchers and policy makers to begin rethinking and reconceptualizing a new on how the three zones shall relate and the long-term effect of such relations (See for example, Ayonga, 2011;2021).

The objectives of this paper are threefold; first, to briefly provide a theoretical justification for the migration of people and capital to areas of the rural-urban interface within the context of the rural-urban dichotomy (Ayonga, 2013;2015). Secondly, the paper revisits the persuasion that in situations of 'rural-urban divide', the peri-urban landscape tends to occur as a separate and distinct zone marooned between the urban and rural magnets; thus, capable of being viewed as a magnet on its own (Ayonga,2011; 2021). Thirdly, the paper seeks to explain that if the 'peri-urban magnet' is left unaddressed, it shall continue to attract to itself more population, industrial investment, real estate investment such as the construction of houses for sale and rent, shops; flower farms, institutions such as schools, universities, hospitals, workers, and for this reason, the demand for land shall be on the rise. Due to high returns from alternative land uses, farmers shall convert their land from agriculture to urban related land uses. For this reason, the peri-urban magnet can be seen as horizontally invasive, a process which threatens to consume farmlands and affect the livelihoods of

rural communities.

THEORY

Existence and Justification for Rural-urban 'Divide' in Kenya and other Countries

In post-colonial era, most countries in transition retained the colonial policy of urban-rural 'divide' albeit for different reasons from those of the colonial governments. In Kenya, for example, policy makers favored the urban rural duality in order to facilitate a 'virtuous and symbiotic' relationship between the two space exclaves (Kenya, 1978; Ayonga and Obiero, 2009). The duality also served the purpose of favoring rural development where majority of the residents resided (Obudho, 1981; Ayonga, 2012; Ayonga and Obiero, 2009). The rural-urban divide is reflected in policies, institutions and territorial planning approach (Lynch, 2018, Tacoli, 1998; UN-Habitat, 2019; Ayonga, 2021). It is also reflected in the division of policies along spatial and sectoral lines and along the urban and rural realms (Tacoli, 1998; Ayonga, 2021). Despite most countries favoring it, the existence of urban-rural 'divide' has been found to create frictions that have thwarted efforts to promote beneficial and virtuous linkages between the two space realms (Tacoli et al, 2013; IINAS, 2015; Douglas, 2018; OECD, 2021).

Duality-led policies borrow heavily from Perroux's growth pole theory; which posits that development does not occur the same way everywhere but in nodes and niches before it spreads elsewhere. In line with perroux's (1955) polarized development theory, a group of urban centers were, for example, identified in Kenya in hierarchical form to facilitate investment of various infrastructure facilities and services. The aim was that provision of infrastructure within urban areas such as health centers, schools, water reticulation, and markets would benefit residents of the towns and those of the rural areas (Kenya, 1978; Obudho, 1981).

Rural-urban 'Divide' and Inadvertent Formation of the 'Peri-urban Magnet'

Lynch (2018), cites Mcgee (1991) who documents the inadvertent emergence of very high-density development in areas outside the cities of Asia, known as the DESAKOTA; where DESA refers to cities while KOTA refers to regions that have developed around the cities of Jarkata, Manila

and Bangkok. Desakotas occur in societies where urban and rural areas are treated as separate enclaves (Adell, 1999). In a similar vein, Tacoli (1998) points to the fallacy of defining cities using population size and city boundaries. To amplify this point, Tacoli (1998) provides the same example of the extended metropolitan regions (EMR) of Asia where agriculture, cottage industries and suburban development coexist with urban development in a radius of 100km and where the high mobility of population include circular migration and commuting (see Lynch, 1998). For this reason, most scholars argue that we swim against the current if we continue to think in terms of distinct rural and urban localities and if our development policies and strategies continue being compartmentalized in our well known rural versus urban categories (Tacoli, 1998; Lynch, 2018; Douglas, 2018; UN-Habitat, 2019).

A second fallacy noted in the rural-urban relations is the postulation that movements of goods, people, and capital shall always take a linear pathway between the urban and rural and vice-versa (Lynch, 2018). If linkages are always conceived to flow from city to rural and vice-versa, then the desakota model of development are likely to be treated as outliers and shall escape the scrutiny of both scholars and policy makers. This thinking shall begin to change when scholars take cognizance of the 'peri-urban' zone, existing on its own and outside the traditional rural and urban realms. Lynch for example disagrees with the linear pathway of development model and instead comments that rural-urban relations is a neglected area in research (Lynch, 2018). Tacoli (1998) observes also that preoccupation of the urban-rural divide makes planners to concentrate on the urban node while rural development authorities concentrate on the rural region. Yet, in Manila for example, large swathes of rice-land have been converted to industrial, residential and commercial use; yet such new land uses are occurring in the rural areas. Between 1990 and 2000, the population in the core areas of Mexico City declined by 2.1% while that of the suburban area increased by 2.8%. In the last two decades, Buenos Aires, Santiago and Mexico City have experienced poly-centric urban expansion of first and second order urban localities sprawling along the major highways and functionary linked to the main city.

The process and evidence of peri-urban formation in South East Asia is similar to what is happening in the cities of Kenya. However, whereas policy makers in Asia have identified this phenomenon and integrated the landscape into the larger city in a process referred to as extended metropolitan regions (EMR) (Adell, 1999), in Kenya such zones are occurring outside the city boundaries within the rural realm (Ayonga, 2011; 2012; 2021). Yet, land uses in this zone are mixed, and the peri-urban is easily discernable as a separate landscape from that of the urban core and of the rural zone. How does 'peri-urbanization' occur as a separate landscape in Kenyan cities? This is explained in the sections below.

Factors and Processes in the Formation of the Peri-urban Magnet

During the 70s and 80s, rural-to-urban migrations were rampant in Kenya and the popular explanation was that there were better opportunities in urban areas compared to the rural areas (Oucho, 1996). However, in the year 2000 and beyond, a new phenomenon of migration consisting of urban to peri-urban and rural-to peri-urban has been observed and this can be explained within the context of opportunities created by the urban-rural 'duality' (Ayonga, 2013; 2015; 2021).

Developers in the Core-City are not Running away from Congestion and Crime

In their study, Mwathane (2012) and Kago and Sietchiping (2017), explain that the formation of the 'peri-urban space' is due to activities of the real estate developers who are putting up villas and flats for sale outside the city of Nairobi and who are targeting the middle class who are running away from crime and congestion in the city. Although the above argument opposes the position taken in this paper, it can easily be rebutted as follows: if Eastlands of Nairobi where the middle class hitherto resided are suffering from congestion, insecurity and crime, why wouldn't such residents relocate to the low-density leafy suburbs of westlands and Karen where such vices are low? On the basis of such discrepancy in logic, the Mwathane (2012) and Kago and Sietchiping (2017) thesis is discounted and cannot stand hence the need for an alternative explanation as provided below.

Rural-Urban 'Duality' creates 'Island of Low-Cost' outside City that Attracts Capital

In the periods between 1960 and 1990, the

Kenyan government not only retained but also deliberately encouraged the urban rural duality in order to raise the livelihoods of majority of the Kenyan population who resided in rural areas (Obudho, 1981; Ayonga and Obiero, 2009). In order to reduce the cost of doing business in the rural areas, the government exempted rural residents from the using the expensive 'Deed plan' survey system and instead, hedges and general boundaries were permitted to suffice for land registration and acquisition of land titles (Ayonga and Obiero, 2009). Rural areas were also exempted from planning and development control; implying that the construction of homesteads proceeded without permits and land subdivision processes were undertaken using simple mutation plans prepared by land surveyors (Kenya, LPA, CAP 303). This was in contrast with the elaborate development controls applied in most of the urban areas in Kenya; requiring developers to obtain permits and also requiring them to adhere to the zoning plans (Kenya, CAP 134; CAP 280; CAP 265; CAP 286). For this reason, the rural development pathway and development control model became cheaper than the urban development pathway and development control model. Variations in urban and rural development pathways and development control models had implications as seen result section.

RESEARCH METHODS

The thrust of this paper is to demonstrate that in situations of rural urban 'divide', the 'peri-urban magnet' is emerging as a separate and distinct third sector, adding to the two-sector, rural and urban paradigms. In order to contextualize the above argument, the paper revisits and makes use of data generated during a study on the dynamics of rural urban interface; based on the city of Nairobi and its bordering areas (Ayonga, 2012). To begin with, the paper revisits the already established evidence that in situations of urban-rural 'divide', people and capital always migrate to the rural-urban interface resulting in new landscapes such as the Desakotas of Southeast Asia and the 'Sporadic Appended Urban' Sprawl ('SPoAurban') of Kenya (Ayonga, 2011; 2012; 2013; 2015; 2021; Tacoli, 1998; 2013; Lynch, 2018). But what prompts the process of peri-urbanization? The existence of two separate 'enclaves'; urban and rural then results into two development processes and two development control models (Ayonga, 2012; 2013;

2015) and in this case, the urban models become more expensive than those of the rural zone (see detailed discussions in Ayonga, 2013; 2015; 2021).

In a previous study, it was established that over time, property values between the core city and those in the areas immediately outside the city do not vary significantly, yet there exist significant variations in development costs between the core city and areas of the rural zone (see a detailed analysis in Ayonga, 2013; 2015; 2021). For this reason, profit motivated developers opt to invest at the rural urban interface because the zone is lucrative and home-seekers also relocate to this zone because it is quiet and development is flexible and cheaper and this explains the emergence of the 'peri-urban magnet'. The above line of argument was earlier validated and documented (see Ayonga, 2012; 2013; 2015; 2021).

In this paper, the inquiry aims to advance the postulate that the 'peri-urban' should be viewed as a 'third magnet'; adding to the 'urban and rural' magnets. The paper explains further that as more people and capital agglomerate in and around the peri-urban magnet, farmers tend to sell land to investors who then replace farmlands with urban-related land use investment, while some farmers abandon agriculture and embrace urban related investments. Using evidence from desk-based literature review, the paper demonstrates that the 'peri-urban magnet' contains new investment and job opportunities that continue to attract home-seekers, industries, real estate investment, job-seekers and capital both from the urban core and from the rural areas. Evidence from literature review was also augmented by observations and ground truthing carried out by the researcher. For this reason, the new magnet is enduring, and invasive as it makes incursions towards the rural zone.

RESULTS AND DISCUSSION

A study was carried out by the author to find out why developers preferred to invest outside the city and not within the core areas of the city. The aim was to find out whether variations in opportunities and costs brought about by the duality could suffice to explain the process of peri-urbanization. A sample of investment returns both in the city and outside the city were tabulated and compared using a t-test. The specific area of focus was the

comparison of investment on land speculation, building a house for rent and a house for sale both in the city and outside the city. A similar process was followed when tabulating variations in cost incurred by developers either in the city or in areas outside the city. Development costs that were included in the tabulation included payments for obtaining development permits, paying for consultants such as lawyers and architects and the cost of land delivery and acquisition. The results of the t-test showed that while variations in development cost between the core city and the peri-urban were very high and significant, there were no significant variations between investment returns in the city and those of the peri-urban (for more details of the analysis, see Ayonga, 2012; 2013; 2015). Total profit is usually calculated by subtracting total cost (TC) from total revenue (TR) (TR-TC) and in this case the higher the cost, which was found in the core city, the lower the profit and the lower the cost at the peri-urban, the higher the profit.

Due to the foregoing, the study concluded that a prudent investor shall avoid the core areas of the city and opt for areas outside the city where investment returns were higher (Ayonga, 2013; Ayonga, 2015). As a result, developers preferred areas outside the city when investing in homes for sale, houses for rent and even when speculating on land. Such developers were bolstered by the freedom to invest in any venture due to lack of zoning outside the city. For this reason, developers were putting up flats, informal 'mabati' houses, timber and even tin houses in the peri-urban zone, most of which were not allowed in the core areas of the city (Ayonga, 2012; 2013; 2015). This then explains why developers and home-seekers relocate capital from the core urban and from the rural realm to areas immediately outside the towns (Ayonga, 2013; 2015, 2021).

The 'Middle Income' Population Migrate from the Core City to the 'Peri-Urban Magnet'

The middle class reside in certain locations of the urban areas, specifically, in areas where they can afford in Nairobi such locations include Buruburu, Umoja, Dandora, Satellite, Zimaman, Kayole, Ruai among others. However, the middles class are often alarmed by the choking noise, crime, pollution and congestion in their neighborhoods. Yet, due to low salaries, such population cannot afford to settle in the less noisy suburbs of the same

urban areas such as Karen, Runda, Lavington and Westland and for this reason, they opt to settle in the peri-urban areas of the towns.

In order to acquire land outside the urban areas, like in the bordering areas of Nairobi for example, most of the urban residents form cooperative societies or they pull resources in groups to purchase land in the rural urban interface. The land buying societies then subdivide the land and share the portions among the members of the group (Ayonga, 2012; 2013; 2015). Some of the land buyers enter into land purchase arrangements with land owners who allow them to pay money in installments until the purchase price is finalized. This option of land acquisition is cheaper and convenient to the purchaser, yet such arrangements and opportunities are not available in the city due to high land cost and deterrent zoning restrictions that specify the use and size of the land (Ayonga, 2012; 2013;2015).

Due to lack of/ineffective controls in the rural zone, home developers can design a house of their dream and construct it in phases since there is no time frame in finalizing the construction of the building as is often the case in the city. These developers have the option to construct a temporary structure in the corner of the plot to house the family while waiting for the completion of the dream house at the time when finances allow (Ayonga, 2012;2015). Yet, in the city, such options are limited because of the regulations which require developers to be issued with development permits, completion and occupation certificates before they can move into the house. Building requirement in the city are a hindrance to most civil servants who depend on monthly salaries to finance the purchase of land and the construction of the house.

Some of the homes in peri-urban areas are developed for 'gated-communities' and sold to the middle-class population in installments while some developers provide concessionary prices to their customers, having also benefited from the low-cost development model outside the city (Ayonga,2012;2013; 2015; 2021). Although this is a flexible and convenient way of acquiring homes, developers, however, put-up houses of their own choices without minding the taste and comfort of their neighbors and soon this leads to disharmony of land uses and houses of unaesthetic value

emerge in the neighborhoods.

As time passes by, more and more people move to the 'peri-urban magnet'; providing further impetus for capital investment outside the city in the form of homes, rental houses, land speculation and construction of houses for sale (Mwathane, 2012; Kago and Sietchiping, 2017). Hotels, lodgings and meat roasting joints are constructed and several restaurants and cybercafes are opened to respond and serve the growing population in the peri-urban areas. With time, more and more investors come in to fulfill a further felt need in the form of primary and secondary schools, hospitals, universities, solid waste collection services, churches and borehole water supply. This observation, although relevant in all towns in Kenya, is however more prevalent in areas outside the city of Nairobi.

But why do both investors and home-seekers agglomerate in the immediate vicinities of the urban fringe? Home-seekers hang around the fringe areas of the core city where infrastructure is better than in the deeper rural zones and where they can still access the opportunities provided by the core city (Ayonga, 2012). Capital investment also favors areas that are accessible and for this reason, most of the investment agglomerate immediately after the urban boundaries, along the roads and around the small towns located along the rural-urban continuum. With time, the old peri-urban zone changes from mixed to pure urban consisting of shops, petrol stations, restaurants, hardware shops, cybercafes, lodgings, open air markets, bus parks, churches, workshops and vehicle repairs. During this period, most of the original landowners; mainly farmers have completely ceded ground to the new community of middle income and real estate investors.

In Kajiado county located to the south of Nairobi, areas that have suffered invasion and subsequent succession by other communities include Ngong town, Kiserian, Ongata Rongai, Isenya, Kitengela and lower and upper Matasia areas. In Machakos, these areas include Ruai, Syokimau, mulolongo, Mombasa Road, Katani, Tala-kangundo, Joska among others. Although Kiambu county located in the north of Nairobi has equally suffered invasion and succession of land uses, the original community continues to be the majority for reasons that may require further inquiry.

The second cycle of invasion consists of the now mature urban zone (formerly mixed zone) eating deeper into the rural zone. In the beginning, this consists of home constructions by buyers who purchased land when prices were lower due to the remoteness of the zone. A casual observer would notice unfinished houses, churches, flower farms, schools, colleges, juxtaposed with native communities; struggling with farming or livestock but finding it difficult to coexist with the new inhabitants whose culture and lifestyles are different from the new comers (Ayonga, 2012). In the figure below, zone 1 and 2 were the rural and urban zones; the two former magnets, now separated by the third magnet; the peri-urban. The peri-urban magnet eats into the rural magnet and not the urban core as indicated by the continuous line and broken lines respectively. The push and pull factors on both sides of the rural-urban divide, which lead to the creation of the 'peri-urban magnet' are shown as well (**Figure 1**).

In the absence of government guided development in such areas, most of the physical infrastructure and social services are provided by either the developers themselves or by the private sector who charge very exorbitant fees. For example, a group of residents in a neighborhood would form an association, contribute some money per month and construct their road, hire night and day security (requiring ksh 6000 or 600 USD from every person) and lay pipes to facilitate the connection of water to their houses (paying an average of ksh 3000 or 300 USD per month). Most of the available borehole water is unsuitable for drinking and, therefore, private water vendors who have dug boreholes or who fetch the water from elsewhere usually sell the precious commodity to households in lorries christened 'clean water'. Usually, the source and safety of the 'clean water' cannot be ascertained and for this reason, residents in the peri-urban are often in real danger of contracting water related diseases.

Waste disposal sites are not provided and, therefore, residents who might afford usually hire private waste collection companies, yet those who cannot afford to do so have to dump such waste on the road reserves and in the open fields and this creates untidiness and foul smell in the neighborhood. It is a common phenomenon to notice several vehicles carrying raw sewer emptied from underground septic tanks and

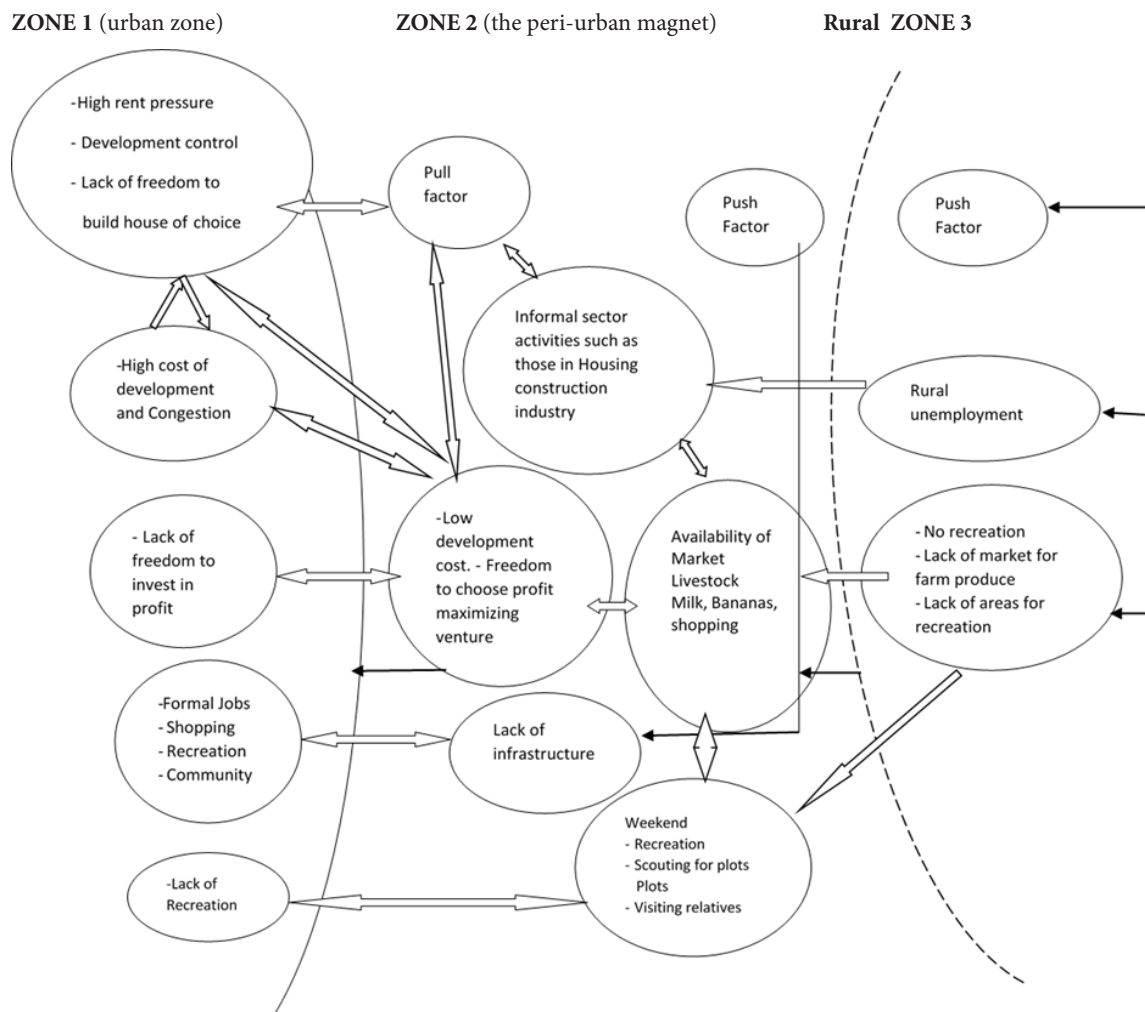


FIGURE 1
The Pull & Push Factors in urban (sector-1) and the Rural zone(sector 2) and Formation of Sector-3 (per-urban magnet) City Residents
Source: Author's conceptualization

whose destination is not specified and for this reason, most of the raw sewer is poured into the rivers, putting aquatic species in danger.

Due to Perceived Benefits, Labor from the Core Urban and Rural Areas Prefer the ‘Peri-Urban Magnet’

The third wave to the ‘peri-urban magnet’ involves labor migrating from the farming sector and from the urban. The jobs available at the peri-urban areas although paying less, are attractive for various reasons including the perceived notion that they are higher compared with returns from farming and livestock production. For this reason, school leavers migrate from the rural areas to the peri-urban to secure jobs as shop attendant, baby-seating, watchman/women, drivers, petrol attendants, quarry operators, flower farming

attendants or working in the export processing zone such as the one located in Kitengela town.

In the peri-urban, developers are able to construct shanty residential houses due to lack of/ineffective development control and these houses provide affordable accommodation (an average of Ksh 1,000 or 100 USD per month) to the low-income workers. Affordable housing then becomes very attractive to the often lowly-paid workers both from the urban core and those coming from the proper rural zone where farming is the major occupation. For example, a single room in the peri-urban costs Ksh 1,000 (100 USD) while such room would cost Ksh 6000 (600 USD) in the areas of the core city.

In the absence of public police posts, most

residents seek for private security arrangements often provided by security companies and this has created demand for security workers drawn from the rural and from the core city. Due to high demand for construction materials occasioned by heightened construction activity, a lot of quarrying activities are rife in the rural urban interface and this requires labor. Some of the employment activities associated with construction industry include mansion builders, caretakers, watchmen, those who dig septic tanks, roofing and tile experts. Many shop owners who open hardware shops selling construction materials such as timber poles, cement, nails, paint, timber doors and steel doors, wiring and other lighting materials often employ at least one laborer or helper often referred to as 'mtu ya mkono'.

Conversions of Agricultural Land to Mixed-Use and Implications on Livelihoods and Food Security

Ordinarily, farmers often produce milk, meat and crops which they either consume within the households or they sell to individuals or to the urban residents. However, the 'peri-urban magnet' offers new opportunities to the farmer. For this reason, urban-related land uses begin to compete with the purely rural land use activities for space. In this way, the farmer is faced with two options; either to directly invest in urban related land use or to sell land to the investor who wants to construct urban land uses such as residential flats, industries, petrol stations among others. Those fronting urban related land uses are usually willing to pay high prices per unit acre of land than what farmers fetch from crops and livestock. In most cases, production of agricultural goods per unit area is low and the income realized from the sale of livestock and crop products cannot cover household expenses on food, clothing, health care and school fees. Due to availability of opportunities in the 'peri-urban magnet', some of the farmers begin to invest in land use activities hitherto considered urban-specific such as industries, residential flats and rental houses while some of them sell land to investors (Ayonga, 2015).

Farmers at the rural urban interface find themselves at crossroads; either to continue engaging in the traditional activity of livestock and crop farming or to embrace urban-related investment. If such farmer is driven by the rationality instinct, then he/she shall avoid farming and livestock and invest

in urban related land use such as petrol stations, hotels, rental houses or flower farms. In case the farmers lack capital required to invest, they have the option to sell part of their land in order to raise such capital. In the formative years of Nairobi, Kikuyus who lived in Kawangware, Kinoo, Satellite and other areas that were then bordering Nairobi avoided farming and constructed informal mabati and tin houses to accommodate those who worked as laborers in the urban European homes. This change of development tactic by the farmers outside the city then led to the siring of towns such as Kawangware, Uthuru, Kangemi, Kinoo and Kikuyu towns. These peri-urban towns were later integrated to the city of Nairobi boundary in 1963. However, the lack of planning and the unclear articulation of land use in these towns remains noticeable to date. A similar process in post-colonial era has sired the towns of Kitengela, Ongata Rongai, Syokimau, Kiserian, Katani and several others located within the rural urban interface of Nairobi, yet these towns remain locked outside the city due to boundaries although functionally linked to the latter.

The systematic conversion of land from agriculture to urban related land use within the urban rural interface continues at an alarming rate (Mwathane, 2012; Kago and Sietchiping, 2017). Most farmers are even selling part of their livestock and crops in order to invest in urban related land uses such as rental houses, shops, petrol stations, hotels and schools. It is projected that if this remains unabated, the whole of the rural space surrounding major cities like Nairobi shall be urbanized and due to the urban-rural 'divide', the urbanization shall occur as a separate landscape outside the city boundaries. Viewed from the bid rent theoretical perspective, urban related land uses located at the rural urban interface shall obviously outbid agricultural land uses for central locations. This implies that locations close to the core city and those close to the highways and those around the small towns along the urban-rural continuum shall be occupied by urban-related land uses and agriculture shall take the peripheral locations. The illustration provided above then offers the explanation for the observed land use arrangements in peri-urban where shops are located along the roads, followed by residential flats, bungalows, industrial development and finally agriculture occupying the outlying locations. However, as you travel deeper into the

rural areas, home-steads dominate followed by poultry farming, flower farming, hospitals and then finally livestock and farming.

If you travel along Mombasa Road and along Nairobi Kajiado Road, land use next to the roads are dominated by petrol stations, hotels, shops selling hardware, steel making factories, cement factories, then flower farms follow, the schools, then residential and farming and livestock takes the dorsal position. Tragically, the boundary between the mixed land use zone and the rural proper is porous and this means that the peri-urban landscape shall continue eating into the rural space until the rural space is no more.

Decline in Agricultural Production and Disruption of Indigenous Livelihoods and Harmony

Peri-urban growth has extended outwards to a distance of more than fifty kilometers to include Limuru, Kiambu, Kajiado and Machakos. In Kajiado county, the peri-urban zone of Nairobi has expanded to occupy the whole distance of 100 kilometers stretch between Nairobi and Namanga border that separates Kenya and Tanzania. The implication is that all the Maasais of Kajiado and all the Kikuyu residents of Kiambu county and most Kambas of Machakos county are currently consumed by the peri-urban footprint.

As farmers receive the windfall from land-sales, they mimic the lifestyles of the new comers who drive big cars, roast meat and who drink lots of beer in the bars and who take their children to expensive academies and boarding schools. Soon the money received from land sales is depleted and as they enter the second and third round of land sales, they realize that the space is shrinking and the former economy of farming is becoming more and more unviable. Poverty and landlessness beckon the community and vulnerability swings in. Meanwhile, as long as the duality remains, the 'peri-urban magnet' shall suck the core city and consume the 'rural magnet'. Since the peri-urban is a cosmopolitan zone; consisting of many ethnic communities, policy makers should be wary of the possibility of communities coming from other areas of the country and taking over the once predominantly indigenous community land. Kenya has in the past witnessed ethnic animosity and bloody confrontations in areas such as Molo, Kitale, Eldoret, and Kwale where 'outsiders'

had bought land and settled in areas preciously perceived to belong to a particular ethnic group.

CONCLUSION AND RECOMMENDATIONS

This paper set out to validate the assertion that the 'peri-urban magnet' is emerging at the rural urban interface as a separate and 'third sector', thus, adding to the traditional rural and urban magnets. To illustrate this position, the discussion began by illuminating how the urban rural 'divide' becomes the catalyst that prompts the migration of People and capital to areas outside the city, hence helping to form peri-urbanization. Specifically, due to the long history of zoning and development control in the core city and lack of it/ ineffective in areas outside the city, the rural area development pathways and development control model tend to become cheaper than that of the core urban. Overtime, however, investors realize that property values and investment returns in the area immediately outside the city fringe and those within the core city do not vary significantly. Developers then avoid the expensive areas of the city and invest in areas immediately outside the city fringe in order to maximize on profits and this was found to be the trigger for peri-urbanization (Ayonga, 2012; 2013;2015). The middle-income population from the core city also favor areas outside the city fringe because of its serenity and availability of freedom to construct homes of their taste.

The thrust of the discussion is, however, the effect of the 'peri-urban magnet' on food security and general livelihoods of the rural inhabitants. For example, the paper has illustrated that the 'peri-urban magnet' continues to attract to itself home-seekers, workers, industries, and real estate investment; all of which require land. For this reason, farmers have neglected crop farming and livestock production by embracing urban related investment. Whereas this change of development tactic can be viewed as a rationally derived economic instinct, concerns, however, emerge over the future of agriculture and food security, not just for the rural inhabitants but for the urban dwellers as well. Secondly, as investors coming from all directions of the country and even from outside, through the 'peri-urban magnet', there are policy concerns over the future of the original dwellers who are now displaced through invasion and succession. Thirdly, the peri-urban area is

evolving without social and physical infrastructure and when such infrastructure is provided by the private sector, it turns to be very expensive to the residents. Finally, the 'peri-urban magnet' has the tendency to make horizontal incursions towards the rural zone and currently, it covers more than 50 kilometers of horizontal space from the marked urban-rural boundaries of Nairobi city.

This observation then leads to the conclusion that, if left unchecked, the 'peri-urban magnet' shall replace the whole of the rural zone through 'invasion and succession' and this process of gentrification shall jeopardize the ability of rural spaces to produce food and shall also disorganize the social set-ups of the majority population who reside in the rural areas. The flow of capital and population from the urban and rural to the peri-urban also puts into question migration theories which often assume movements to take a linear trajectory between the rural-to urban and vice versa.

To ameliorate the current 'divide', which currently threatens to decimate the rural space, policies should seek innovative approaches to harmonizing rural-urban relations (for example, Ayonga, 2008).

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