

# A New Trend in Urban Housing: Gated Communities in Khartoum, Sudan

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**Abstract** Gated communities have spread extensively in both developed and undeveloped countries. Yet they have become an issue of concern among researchers and decision makers during the last three decades. The appearance of gated communities in Sudan goes back to the year 2003. Since then they have developed more rapidly and immediately they covered almost twenty sites in Khartoum, the capital of Sudan. The purpose of this paper is to trace the development of gated communities in Khartoum and investigate its suitability and sustainability for urban housing. The overall objective of this study is to reveal the major driving force behind the spread of gated communities in a country like Sudan, where independent residential units and flat houses were the dominant character in the past. A case study approach has been adopted and both primary and secondary data were applied to accomplish the aims of this study. The paper has come out with that seeking for better basic services and feeling the sense of prestige have forced wealthy people to prefer living in gated communities. Not denying the role of security in such choice, but the social tie of the Sudanese community and the special nature of gated communities make it just a sense rather than anything else. Moreover, having gated communities in a country where almost half of its population is living under the poverty line have affected negatively on the social fabric of Sudanese community. Hiding behind the wall implies that outside is not safe and lack of better amenities. The paper also showed that the sustainability of gated communities in Sudan is in danger. This due to the facts that gated communities have been developed by the private sector as a matter of investment and business rather than respond to the real need for housing. Therefore, most of the Sudanese, especially the youth do not consider gated communities as suitable housing for their lifestyle, needs and wants. Planners should carefully consider the demand for the real type housing and have to formulate regulations to avoid the negative consequences if people prefer gated housing. The paper has contributed to the ongoing debate on urban housing and open rooms for more research on gated communities, particularly in Sudan, where there is a lack of literature on such subject.

**Keywords** Gated communities, Housing, Segregation, Urbanization, Sustainability, Khartoum, Sudan

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## 1. Introduction

In the last few decades, gated communities (GC) have become an issue of concern among researchers and policy makers worldwide. Two major schools have dominated the debate: those who view them as symptomatic of the imminent breaking down of society at large, and those who consider gated communities as innovative and efficient way of organizing and (re)distributing public goods (Pow, 2009). The notion of gated communities is not new, some traditional city or castles in the ancient history used to be surrounded by walls and a number of secured gates for defensive and security reasons (Al Shawish, 2015). Recently such an ancient urban type have slightly modified and began to re-emerge in modern settlements all over the world

(Landman, 2000; Al Shawish, 2015). Despite its wide spread, gated communities don't receive attention it deserves particularly from social science until recently. According to (Roitman, 2010) only in the 1990s the growth of gated communities have become one of the interested issues for the scholars from economic and social sciences background.

Several definitions have been developed to explain the concept of gated or walled communities. Grant and Mittelsteadt (2004), suggested another definition for gated communities as "a residential development on private enclosed roads from general traffic by gates across primary accesses. Fences, walls, or other natural barriers may surround the development that further limits public access". In *Fortress America*, the first book on gated communities, Blakely and Snyder (1997) explain gated communities are residential areas with restricted access in which normally public spaces are privatized. While Vasselinov and Goix (2012) mentioned that gated housing communities are residential, enclaves walled or fenced and secured with both gates and security personnel. Most of the available

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definitions agreed upon that gated communities are characterized by having the following: security measures (cameras), controlled or restricted entrances for outsiders (walls or fences), pay regular compulsory maintenance fees and inhabitants share some socioeconomic similarities. Moreover, they have a private governing body that enforces internal rules concerning behavior and construction (Roitman, 2008). The above mentioned characteristics of gated communities worldwide are not much differ from the type of gated housing in Sudan.

Not until the latter half of the nineteenth century did the first purely residential gated neighborhoods appear. The first gated communities in the world are said to have been developed in the Victorian age in England (Grant, 2005) and then moved to the United States of America at the beginning of the nineteenth century and have remained popular there

since that time (Rosen and Grant, 2010). Gated developments like New York's Tuxedo Park and the private streets of St. Louis were built in the late 1800s by wealthy citizens to insulate themselves from the troublesome aspects of rapidly industrializing cities (Blakely and Snyder, 1997) but it remains rarities over there until the advent of the master-planned retirement developments of the late 1960s and 1970s. This idea supported recently by El-Ekhteyar and Furlan (2016) who stated that modern walled communities remerged in the 1980s in several world-wide cities as forms of residential accommodation. Currently, gated communities have been found everywhere and covered both developed and undeveloped countries (reputation). It is not surprising to have gated communities in developed countries where security and prestige are targeted, but to have it in a country like Sudan, a phenomenon deserves to be looked at.

**Table 1.** Gated Communities in Khartoum

Name	Type	Size	Activities	Location -Khartoum	Developer	Finished
Yasmine	Horizontal	650	Housing -services	Soba	Bule Nile	25%
Arak city	Horizontal	690	Housing services	Soba	Arak for investment and development	40%
Saria 1	Horizontal	525	Housing services	Azhari	D.C company Azman consultancy	76%
Awtad	Horizontal	23	Housing recreational	Manshia	Elnifaiddi – Elnawras	87%
Tara	Horizontal	-	Housing services	Soba	Tara	15%
Saba	Horizontal	41	Housing recreational	Soba	Zawaia, mosbah and hydar	100%
Presidential villas	Horizontal	40	Housing	Buri		100%
Elnifaiddi villas	Horizontal	11	Housing	Soba	Nefaiddi and Norath	100%
Elmanshia	Horizontal	7	Housing	Manshia	D.C company Azman consultancy	100
Golf	Horizontal		Housing &commercial	Soba	Soba –Dal	Underconstruction
Saria 2	Horizontal	1000	Housing services	Azhari	D.C company Azman consultancy	proposed
Andi	Horizontal	-	Housing services	Soba	Elrowad	proposed
Elnasr	Vertical	1100	Housing services	Sahafa	Elnasr	50%
Elakhdar	Vertical	140	Housing services	Sahafa	Shahd	98%
Elrowad	Vertical	1750	Housing services	Allamab	Elrowad	30%
Elneelain Tower	Vertical	228	Housing	Wasat	National fund for housing and reconstruction	75%
Moshairb	Vertical	483	Multiple	Bahri CBD	Qatar Dyar	25%
Elnoor	Vertical	-	Multiple	Oumdurman CBD	KawitJraed	proposed
Elsunt	Vertical	-	Multiple	Khartoum CBD	Sunt for development	proposed
Tuti	Vertical	-	Multiple	Tuti	Tuti investment	proposed

Source: Ali, Shereen 2016

Several drivers have been quoted in the literature behind the wide spread of gated housing and it varies from country to others. Major among these are the security and prestige (Jeffrey et al., 2012; Obeng-Odoom et al, 2014). In multi culture countries like South Africa gated communities are a wise choice to escape crimes and risky urban environment (Touman, 2002). In some parts of the USA, Gated communities are designed mainly for the urban elite (Blakely & Snyder, 1997). While in Europe, the primary reason for gated communities is the seasonal use of houses in coastal zones. In some cities like London and Amsterdam, they have become a fashionable trend (Ajibola, Oloke, & Ogungbemi, 2011). Practicing the same lifestyle found in the home countries is another driver found in some Arab countries. In a country like Saudi Arabia foreign expatriates whose residence is part of their work contract prefer gated communities so they can freely practice their daily activities, which are prohibited outside the gates as it contradict the local traditions and against the Islamic laws (Touman, 2002). Moreover, Blakely and Snyder (1999) differentiate between three categories of gated communities: lifestyle communities, prestige communities and security zone communities. In a state like Sudan, security matter seems not to be the major reason behind the popularity of gated communities in Khartoum. So, why gated communities are there and why some people, mainly Sudanese prefer living in such compound?

In a country like Sudan, where almost half of its population is living in poverty (Elhadary and Samat, 2011; 2012) having gated communities is questionable. A country like Sudan must concentrate on providing affordable houses to middle and less income instead of encouraging gated housing. Therefore, it is valuable to look deeply at the drivers behind having gated communities in Sudan, where this current phenomenon is relatively understudied. The appearance of gated communities in Khartoum goes back to the year 2003. The Alyasmine (2003) and Elnasr (2004) were the first gated communities in Sudan. Then the idea started to flourish in the inner city and now covered almost twenty sites in Khartoum (Table 1).

Much has been said about providing affordable houses to the poor and less income people in developing countries, while less attention is paid on how wealthy people accessed houses. It has been taken for granted that rich people can easily accessed house compared to the poor. Thus, most of the governments in developing countries concentrate on providing housing for the poor and led the private companies to satisfy the need for rich people. This explains why the private developers manage most of gated communities and public – private partnership as the case of Sudan. Looking only for maximum profit, the developers do not put much attention to the implication of gated communities on both entire inhabitants and to the surrounding physical and human aspects. In this regard (Roitman, 2010) stated that gated communities represent a marketing opportunity for developers and private investors who tend to focus on their positive impacts and avoid doing something to minimize the

negative. Drawing on (Ghonimi, et al., 2011), the physical and social features of gated communities do not only affect their inner structure, but they also influence their adjacent areas, and collectively they affect the overall urban fabric of the city. Therefore, this paper looks into some crucial issues related to the impacts of gated communities in Khartoum, where there is scarcity of empirical studies. It might be one of the very few papers written on gated communities in Sudan. This article tries not to support or stand against the spread of gated communities, but simply reflects what have been on the ground and then evaluates its sustainability. It tries to answer the following questions: what are the major characteristics of GC in Khartoum? What are the major driving forces behind the existence and growth of GC in Khartoum? What are the socioeconomic costs of GCs for those living in and outside the gate? How the future of gated communities in Sudan looks like? To answer these questions the paper collected the relevant data from both major and minor sources. The paper based mainly on fieldwork through the adoption of case study approach. The paper is structured into five sections organized as follows. The next section describes the methodology of the paper. Following that, the paper investigates the major driving forces. Then comes analysis of socioeconomic implication. This followed by the section on sustainability and suitability of gated communities. Finally, the conclusion and lessons learned from the paper.

## 2. Methodology and Data Collection

As stated in the above section, the lack of specific literature written on gated communities in Khartoum required the paper to rely heavily on fieldwork. This limitation coupled with the complexity of the nature of gated issue led the authors to adopt a case study approach. The approach is widely used in social sciences especially when deep analysis is needed for specific current issue. According to Yin (1984; 2014), a case study is an empirical inquiry that investigates a contemporary phenomenon (the case) to generate an in-depth, multi-faceted understanding of a complex issue in its real-life. The approach is very useful when research questions start with what, how why. This approach selects a small geographical area with a very limited number of individuals as the subjects of study; here in this paper is Elnasr gated communities (Zainal, 2007). The paper selected Elnasr housing as a case study and applied all methods related to such techniques like questionnaire, interview with the key format (planners, engineers, investors, and funders), walk through, observations and taking some photos. Not only that, the paper used secondary sources such as books, references and papers published to enrich the literature on gated communities. These further have been enhanced by the experiences of the authors. Elnasr has been selected as a case study because it is an older type of gated communities in Khartoum. Half of its 1100 units have been finished and occupied by both domestic and foreign residents.

In addition to that, the entire inhabitants expressed their willingness to participate in the Study. These justifications are enough to reject other gated houses and make Elnasr as a model to be used for further research.

Technically, the fieldwork divided into two stages: the first stage is to get general information about the main characteristics of all gated houses located in Khartoum and then select the suitable one for the case study. In the second stage, all methods related to case study have been adopted and implemented in Elnasr gated communities. Twenty-five respondents have deeply interviewed, including the consultant, permanent engineer, three persons responsible for management, and security matter. The rest covered owners and renters, youth and old, male and female, people from various economic activities: private or government employees.

It is important to note that the case study approach is useful in evaluating specific private or government programs. According to Yin (2003) the common use of the case study research methodology is the “evaluation” of businesses and government programs with the goal of identifying potential explanations for their successes or failures. In this regard, the study formulates a frame to evaluate the satisfaction among the people living in Elnasr gated community. The outcome of such frame gives a clear idea about its sustainability and predicts the future of a gated housing in Khartoum. The frame consists of seven measures, including location and general planning, infrastructure, social services, facilities, environment, social relation, economic aspect. Each measure breaks into several questions and assigns points for each answer, which is eighty-five in total. This figure has been

classified into 5 point Likert Scale organized as follows: median, less fair, fair, good and excellent. If it ranges between 40 -50 is “medium”; between 50-60 “less fair”; between 60-70 is “fair” between 70 -80 is “good” and above 80 is an excellent.

#### Geographical set-up of Elnasr Gated communities

Based on the characteristics mentioned earlier, Elnasr is a typical example of gated communities located in Khartoum. It has been surrounded by a wall with main entrances controlled by guards and surveillance cameras; the access is limited to residents and to some extents to their visitors only. Elnasr Housing and Reconstruction Company have established it in 2004 in Almamrat party facing African Street and not far from Afra: the big Mall over there (Figure 1 – Figure 2). It covered around 7200 square meters with at least five-kilo meters away from the Khartoum center. It has 34 towers with almost five floors in addition to the ground floor. The compound has six gates only two are functioning the rest are completely closed. The building is surrounded by iron siege that cannot fully protect the outsiders’ eyes. It has been divided in apartment with its different size ranges between 100 – 200 square meters. Elnasr is composed of 1100 united, half of it is completely finished and occupied by the inhabitants. It also includes a number of amenities that are better off than what is usually available in the outside compounds. The provided amenities are namely: Swimming pool, two gyms, recreational club, playground, female and male hairdresser salons, supermarkets, a mosque, and at least one parking for each apartment.

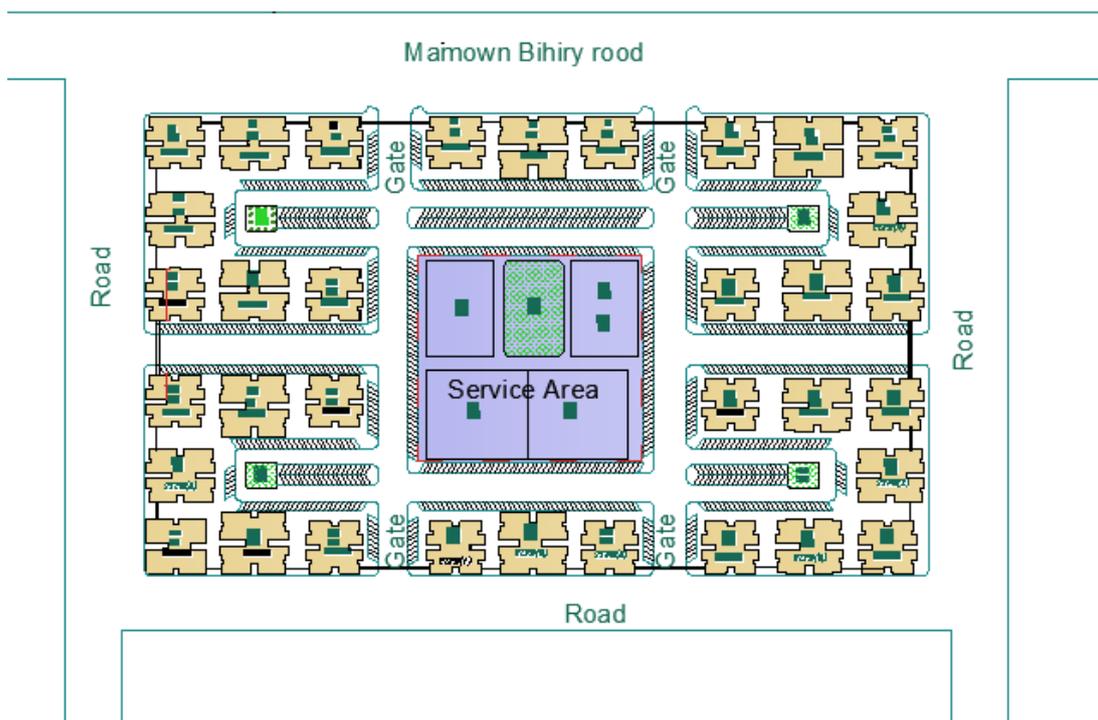


Figure 1. Elnasr Gated Communities

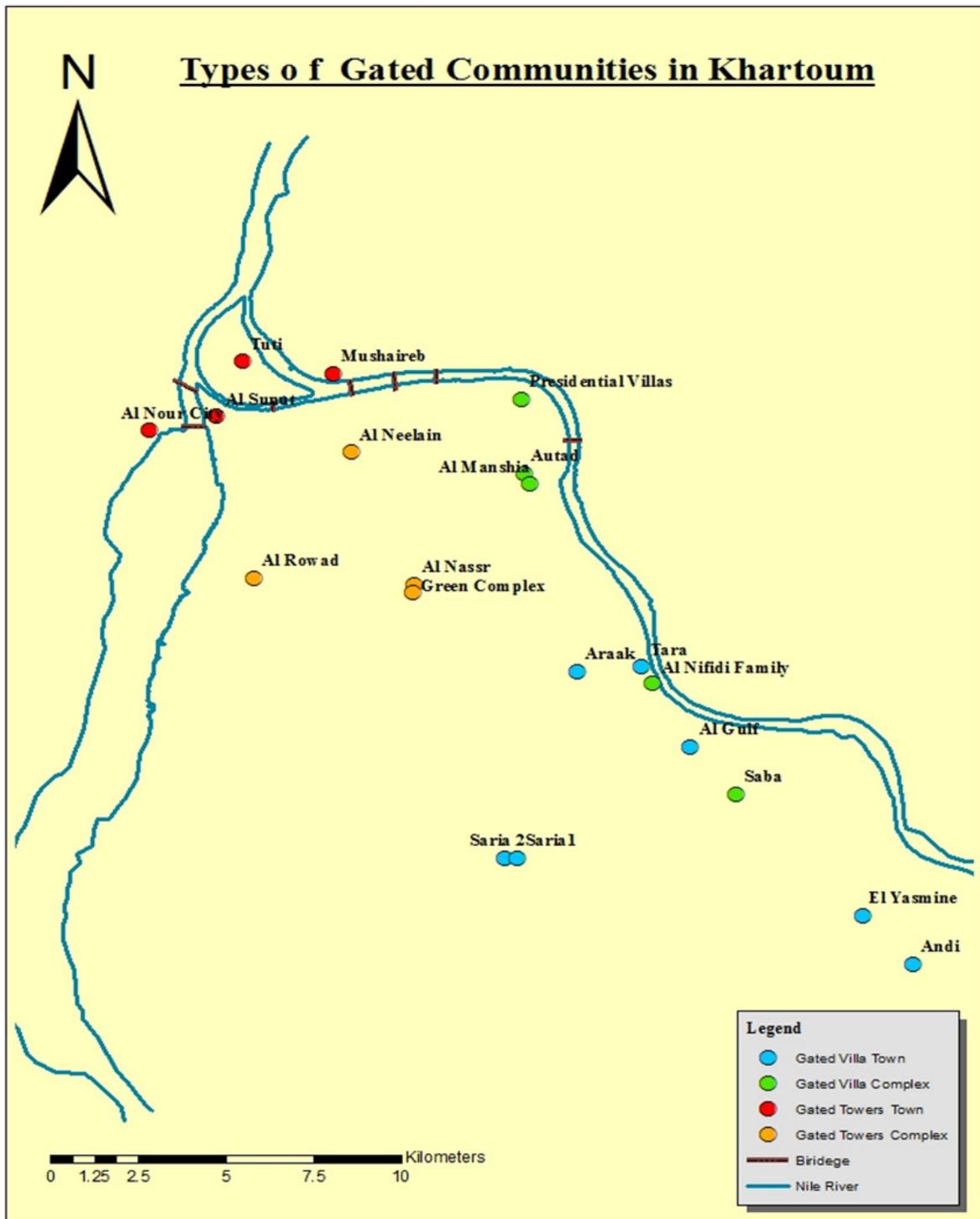


Figure 2. Location and types of gated communities in Khartoum

The residents are coming from different cultures and backgrounds, including some Arab and foreign families. Our data has shown that 80% of the people really living in Elnasr are Sudanese and 20% are foreigners. 10% out of the total foreigners are from Arab countries, mainly from Saudi Arabia and Egypt and the rest are from Asia mainly Indian and Chinese. Regarding compounds, 40% of the people living in the compounds are tenants, whereas 60% are owners. Moreover, 70% of the people owned unit are

expatriates and the rest 30% are living in Sudan most of whom are from military institutions. This is due to the fact that Elnasr was established to provide housing for the military resigned people. Regarding the income only few people respond to such question and indicated that their income ranges from 6 000 – 9 000 dollars yearly with total consumption between 6500 – 8500 dollar annually meaning around 750 dollars per month. Concerning education level, 80% of the inhabitants are graduated from university, 10%

are holding Master and PhDs and only 10% are secondary school. Regarding family size, 50% are having 3-6 persons; 30%, is from 6-9 person and 10% have 1-3 persons.

It is worth mentioning that unlike other gated communities worldwide where usually exist on the outskirts of the city; Elnasr is located almost in the middle of the city occupying an area that is suitable for other land uses rather than gated communities. Another issue need to be highlighted is that around 50% in Elnasr is reserved for housing, 30% office and 20% for commercial purposes.

### **Causes of the Arrival of Gated Communities in Khartoum**

#### **Economic aspect**

Several factors have been accused behind the spread of gated communities in Sudan. Major among these is the growth of the Sudanese economy, especially after the discovery of oil. According to the IMF Sudan has witnessed rapid economic growth since the discovery of oil (IMF, 2013). Accordingly, Sudan is considered as one of the highest growth rates of gross domestic production (GDP) in Sub-Saharan Africa, which is estimated at 5.0% in 2015s, and a rapidly rising, per capita income, with an estimated per capita GDP of US\$ 3027 in 2015s (Hillo *et al.*, 2016). The exploration and exploitation of oil in Sudan led to a significant shift in the Sudanese economy, and Sudan became one of the important countries in oil production in Sub-Saharan Africa after Nigeria and Angola (Sati, 2011). According to the Central Bank of Sudan reports, the share of oil in total revenues reached 64.7% in 2008 (Sati, 2011), and more than that in 2010, but it decreased sharply after the separation of the South in 2011. During such growth Sudan has also witnessed a degree of political stability, especially after signing the Comprehensive Peace Agreement (CPA) with Sudanese People Liberation Army (SPLA) in 2005 (Elhadary and Samat, 2012).

It seems that there is a positive correlation between the growth of the economy and appearance of gated communities. In 1999, oil has become a major source of the economy of Sudan and thus attracts companies and individual from Arab (Qatar, Kuwaiti or Saudi) and foreign (China) countries to invest in Sudan (Choplin & Franck, 2010). Moreover, the government used the revenue coming from oil to enhance the infrastructure aiming to speed up the process of investment. Accordingly, the number of bridges in Sudan has increased from only five in 1990 to more than twenty in 2016 half of it located in Khartoum. In addition, many old tarmac roads are enhanced and new one are constructed reaching even the outskirts of Khartoum. Accordingly, Khartoum has become one of the attractive cities for both domestic and foreign investors. Most of the investors prefer to invest in construction and real estate sector, which is the safest and most solid form of investment in a country like Sudan. The government is not only encouraging, but it also involved directly or indirectly in such business as public-private partnership. For example, several official institutions like the Ministry of Physical

Planning and the National Social Insurance Fund have signed a partnership agreement with Dal Property Development, one of the most powerful Sudanese private companies (Choplin & Franck, 2010). The aim of the agreement was to establish several developmental areas in Khartoum.

Another issue related to the economic aspect and in need to be highlighted is the adoption of the Structural Adjustment Programme (SAP). This policy which was introduced by the World Bank and IMF has contributed by the way or another to the development of gated communities. Price liberalization, privatization, the removal of government subsidies; cuts in public expenditure, the introduction of user fees and tight control of credit are some of the major characteristics of this program (Musa, 2000). The implementation of neo-liberal policies have led to cut back on government functions and reduced subsidies (Elhadary and Samat, 2011). Reductions in the supply of basic services such as health, education, housing, employment and security has left a number of people without accessing public provisions. The (SAP) coupled with process of globalization have impacted negatively of the social fabric and led to the growing urban inequality everywhere including Sudan (Elhadary and Samat, 2012). In this regard Borsdorf & Hidalgo, 2016 stated that the globalization transforms space into fragments of richness, linked to the global economy, within an ocean of poorness. According to Sassen (1994), the impact of global processes radically transforms the social structure of cities themselves – altering the organization of labor, the distribution of earnings, the structure of consumption, all of which in turn create new patterns of urban social inequality. The winners of such policies have to distinguish them self by living in isolated houses where high quality of services is secured and sustained. This led real estate developers in response to such demand and gated communities have become a choice for the wealthy people. Another issue related to the speedup of gated communities beside the economic aspect is the massive arrival of United Nation organization particularly after Darfur crises in 2003.

#### **Lack of provision of basic services by the state**

As indicated in the above section the growing of gated communities reflected clearly the withdrawal of the state from the provision of basic services. In Sudan, particularly in a place like Khartoum where accessing better services like water, electricity or even security has become a far dreaming demand. Khartoum is now considered as one of the crowded cities in Africa. According to 5<sup>th</sup> Sudan Population and Housing Census of 2008, the total number of population in Khartoum is around 5,274,321 with 2,800,024 male and 2,474,297 female (The Sudan Central Bureau of Statistics (CBS, 2016). It represents around 13% of the total population of Sudan, which is 39 million in 2008. It is not impossible, but it is difficult for the local government to supply such big number with good facilities and services. This limitation open chances for the private companies to take the intuitive and shoulder the responsibility of the

government. When asked about the major reason behind moving to Elnasr gated community the fast and foremost answer is the suitable location and better service provision. Most of the respondents mentioned that the location of Elnasr near the centre of Khartoum and its surroundings by accessed services and better infrastructure are some the major factors behind such choice.

Our discussion has shown that the security matter as always, comes after the provision of better services. People in the compound mentioned that the availability of guards twenty-four hours, let them feel that they are in a secured place. The withdrawal of the state from providing security to entire people led wealthy people to have it privately. Here gated communities become a solution especially for wealthy people. If citizens feel insecure and consider the state is not able to provide security, wealthy people can solve this problem by moving to safer places like as gated communities (Blakely and Snyder, 1997). This explains that not only rich people even middle-income salaries prefer to live in Elnasr communities. In this line Elhadary (2014) explains that gated community residents are usually 'successful groups': highly skilled workers who have been able to adapt to the new conditions of the economy and can afford to pay for the services provided in gated communities. The sense of security is highly sensitive when it comes to the issue of kids. The daily newspaper indicated that the crimes against kids in Sudan are in increasing. Therefore, some people prefer to choice Elnasr community due to its safest place for their kids. In this regard, one of the respondents indicated that having peace environment for their kids is a major motivation in selecting gated communities. In the discussion, people mentioned that they are happy to let their kids play inside and left them alone while going to work. This does not imply that there is no crime in the Elnasr gated communities. When asked about the crime and safety inside the compound, the answer is that there is a crime and some violation of the privacy. It appears that there is steeling and used of drugs, particularly among few teenage but in low scale compared to outside the compound. Only few people indicated that the compound is fully secured through the guards. One of the respondents mentioned that the availability of guard twenty-four hours gives us a sense that we are secured and protected. Such security measures give an impression for outsiders that the place is fully protected while the reality is something else. Our observation has shown that none residents can enter the compound through several activities. They can access it freely during praying times, buying things from the supermarket and doing business with some offices located inside the compound. These activities coupled with iron fenced completely erode the freedom of the entire communities especially women as the iron does not protect the eyes of a stranger. Another important thing related to services need to be highlighted is the availability of an entertainment, particularly that related to kids. In Khartoum, most of the public areas reserved for entertainment have been sold out or occupied by activities completely different from the purpose reserved for. Therefore, the availability of

secured playground encourages several families, especially those who have kids to choose gated communities. One of the residents mentioned that I feel happy to let my kids play in front of our eyes with their friends instead of let them go out where there is no enough spaces and if so we worried about the road and social crime. Also the availability of parking spaces has motivated people to select gated communities. As one of the residents explained that we chose to live here because it is easier to find parking areas for our cars and for our visitors. In Khartoum is hard to get safe parking as there are a group of people specialized in steeling the stationeries of cars such as mirror, recorder and other things easy to get and carry. Living in an apartment instead of the flat is another positive point that attracted people to prefer Elnasr compound. For them such apartment is controllable, less consumption in basic services like water and electricity and it is easy to be cleaned.

### **Social homogeneity**

Social cohesion among inhabitant of Elnasr compound particularly youth and women is clearly obvious. They are gathering in different sport and social activities and generate friendship. One of the expatriate stated that we prefer gated housing as I need to compensate the isolated life when I was working in Gulf countries. Here we have friends and at least we can meet once a day beside praying together in the mosque. In this line one of the respondents mentioned that we used to gather in several social occasions mainly during the IFTAR of Ramadan. This implies that people are happy with the internal relation. Unlike the other gated communities, in Khartoum the idea of refusing new member based on ethnicity, religion or social class is rare to be found. In Argentina, some prestigious gated communities ban Jewish residents and, consequently, gated communities for only Jewish people have been built (Rojas, 2007; Svampa, 2001). In South Africa and the USA, social homogeneity is also achieved through race segregation.

### **Searching for a better lifestyle and prestige**

Feeling prestige and having better living condition has also contributed to the spread of gated communities in Khartoum. Walls and security devices are not only physical elements but also provide distinction and privilege. Svampa (2004) considers living in gated communities within a group of distinction strategies such as practicing exclusive sports, having a membership of selected clubs and attending exclusive schools. The privatization of public space reflected a sense that the inhabitants of gated communities are distinguished people having better quality of life completely differ from poor people living outside. Poor people are excluded from such houses due to the unaffordability of high land and housing prices, as well as maintenance fees that act as filters (Elhadary, 2014; Franklin et al., 2013). This led gated communities to be advertised in the real estate market as places different from other areas in the city. Living with elite, quite life, having closer contact with nature, Golden Square, green lifestyle, doors to paradise, living a comfortable life and using English words (residence) are

some expressions used by real estate developers to attract people to choose gated communities. These expressions give an impression that either to choose gated communities or to live in a houses lack of everything. Using Elnasr gated communities, these advertisements are just a matter of nice words rather than something found in the reality (see the sustainability section at the end of this paper (Ali, 2016). This led the paper to say that gated communities have become a matter of fashion rather than response to the need for urban housing. Janoschka and Glasze (2003) view gated communities as the diffusion of a successful real estate product and explain that in developing countries gated communities are part of the image of the international and modern elite and are commercialized as part of this ‘global culture’. The expansion of gated communities also shows the great influence that developers and investors can exert on planning and how the media have an important role in disseminating this lifestyle (Caldeira, 2000). These types of advertisement have impacted negatively and led to segregate the entire communities. Having such an ambitious housing in a country where half of its population is below poverty reflected that the priorities of citizens are not taken into account. The spread of such lifestyle vision of luxury and entertainment sends wrong signal that the government of Sudan is not caring about providing public facilities and affordable houses for the majority of its population. In this regard, the state should control such type of advertisement to avoid social and physical fragmentation of the urban environment.

### 3. Result and Discussion

As indicated in the first section that this paper is not with or against gated communities instead is going to reflect the reality. Gated communities in Khartoum have some advantages, especially when it comes to the provision of social services and security. It solved the problem of housing for a number of specific social groups living in urban areas. This benefit will be much higher if the compound located a bit far from the centre or on the fringe of urban space. Unfortunately, this location has impacted negatively on the urban land use and creates several challenges to the planners. People surrounded or living outside the compound have faced some difficulty in accessing some services due to inability to pass by the compound. The location of Elnasr and the rest of other gated communities in Khartoum divided the city into pieces that seem independent from each other. Concerning this (Ajibola, Oloke, & Ogungbemi, 2011) stated that the rise of gated communities can lead to spatial fragmentation and separation in cities. Consequently, fragmentation can cause the city to be not a whole anymore; or a city anymore. With regard to cost benefit analysis, the area occupied by Elnasr gated communities if used by other land use purposes the gained might be higher than constructing gated communities. Economically, no one going to deny the role of gated communities in providing

profit to the investors as well as revenue (tax) to the local authorities and generates more jobs to the local people. Our observation has shown that several people have benefited from the development of the gated community. On the other hand, the high payment of the apartment with the monthly fees for the basic services and maintenances affected the economic condition of the entire inhabitant in gated communities. Such payment may eliminate the role of government and led people not to respond to the state when needed. Moreover, gated communities put much effort on local government to provide better service for those living outside the compound.

Much has been said about the negative impact of gated communities on social cohesion. Several authors mentioned that gated communities usually led to the fragmentation of physical and social aspect of urban areas. The paper is not fully agreed with such conclusion, as social isolation is one of the major characteristics of urban dwellers worldwide. It seems that the social fabric of Elnasr gated communities are better than people living outside. According to some scholars, it is impossible for gated communities to detach from urban society. Amin and Graham (1999) support this position, arguing that no physically bounded community can ever completely withdraw from the city, which surrounds it. In Elnasr gated communities, people have better relationships, especially among the youth people. This group has shared some activities like sports and evening games. Also the relationship among women in the compound is even better. They meet at least once a month, especially those participate in the traditional rotating saving fund. This type of saving known locally as “Khata” fund or “Sandoq” fund. Khata fund is considered as a savers’ self-administered revolving fund in which each woman contributes an equal agreed amount of money from all members and each time one member gets the whole sum of money (Sarfa) at regular intervals (NAGWA BABIKER ABDALLA, 2009). The women, headed by the chairperson, pool the total amount collected from the members and distribute it in an agreed order.

On the other hand, the appearance of gated communities generates social tensions between the entire residents and people from surrounding local areas. These conflicts relate to the closure of streets, the privatization of space and the provision of services in the area (Roitman, 2008). Hiding behind the wall gives a sense that people inside are not willing to interact with outside and the vice versa. Blakely and Snyder (1997) noted that gated communities have created a new housing option for some of us, but they have also created a new societal dilemma for all of us. Low (2003) argues that gated communities separate between ‘good’ people inside, and the ‘bad’ remaining outside. In the line to this Lynch (2007) stated that gated communities act like borders that prevent the connection and interaction between individuals of the same society, will eventually weaken the civic bonds and sense of belonging, enhance social segregation and fragmentation, and consequently produce a highly unequal society and unhealthy neighborhoods.

### The application of Sustainability form in gated community

This section is about testing the sustainability and future suitability of Elnasr gated community. As indicated in the methodology the authors formulate a form to evaluate the satisfaction of the residents and then to evaluate the future of gated communities based on the views of people living in the compound. This form has been filled with data collected directly from the residents in Elnasr during the survey. Seven measures have been used each measure is given some points based on the questions answered by the respondents. The evaluation has come with that the location and general planning acquired high points while services and facilities got the least (see the table 2). Several other measures such as social services, security and environment failed to pass while another measure like infrastructure looks better compared to other measures. This implies that people are happy with suitable location and the provision of good services in Elnasr gated communities, despite that some services like sanitation, water and electricity are linked to the whole system of Khartoum network. The inhabitants of Elnasr have solved the shortage of water and electricity privately. For example, they use private well to solve the scarcity of water and private generators to overcome the shortage in electricity. The fastest response and following up continuously made sanitation system much better compared to the other outside the compound. Our survey has shown that the compound is very clean compared to other places outside. People in Elnasr are happy with the system of cleaning and on time response to the maintenances. Regarding the outer design of Elnasr building, some people feel happy with such design. The consistency in the outer building is one of the good things

different from Khartoum where each has its own design which make eye pollution. Although the specialists mentioned that the design is missing the creation, attractiveness and failed to support social cohesion as the space between the buildings is not well managed for such purpose. This implies that private developers are seeking for only profit rather than considering the needs for green spaces and suitable social environment (Ali, 2016).

Regarding the economic aspect, the respondents mentioned that the price was suitable when it was sold directly from the company but today the price is shooting up. In 2004, accessing department will cost you 232 Sudanese pounds, now it is approaching almost one and half million in (2016). Despite this price, it seems that still some people prefer such place due to its vicinity to services, having a small apartment instead of flat house as was in the past will reduce the cost of cleaning in addition to the sense of security. Accordingly, several people outside have sold their houses and prefer to settle in Elnasr community. This idea is different from the views of youth as one of them said Elnasr is not my choice for the future. This section concludes that the provision of services and infrastructure in Elnasr compound are not bad compared to the rest of the city but beyond the expectation of the entire inhabitants. This appeared in the overall result of the sustainability frame as the result has shown that the overall weight slightly exceeds the median level.

The above section reflected clearly the satisfaction among the residents living inside the compound, but the major question is that how outsiders and planners see the future of gated communities in Sudan? The answer needs more data and it is a room for further research.

**Table 2.** The Sustainability of Gated Housing

Measure	Description	Maximum points	Gained points
<b>Location and general planning</b>	Without physical and legal conflict, multiple land use, save natural beauty and archaeological sites, suitable population density and good connection	18	
<b>Infrastructure</b>	Good transportation network, good and secure roads, enough parking, good services (electricity, water and sanitation), internet and communication.	22	
<b>Social services</b>	Matching the entire population (health, education and recreation) not less than 200 meters.	26	
<b>Facilities</b>	Additional services for better entertainment	7	
<b>Environment</b>	Clean and better environment without pollution and system involve environmental design	4	
<b>Economic aspect</b>	Housing affordable and good management. Provide jobs and training, make balance between production and consumption	4	
<b>Social aspect</b>	Ensure justice and social cohesion and enhance identity and local culture (participation public).	4	
<b>Evaluation degree</b>	40-50 Medium; 60-70 Fair; 70-80 Good; above 80 is excellent	85	

Source: Ali, Shereen 2016

**Table 3.** The Sustainability of Elnasr Gated Housing in Khartoum

Measure	Description	Maximum points	Gained points
<b>Location and general planning</b>	Good location without conflict, brownfield, has services, surrounding with popular space – planning like a shape of horse show having services and green space in the middle with different uses housing, office and commercial areas And good outer design	18	13
<b>Infrastructure</b>	Better accessibility walking or with private cars, good road with lights and traffic signs, good parking each unit has space for parking, good water network with filter, connected with electricity with generator for each building, sanitation network link to the public, better drainage public, good cleaning facilities, free warranty up to the end of first year then paid, internet and communication link to public	22	13
<b>Social services</b>	It has mosque for in and outside people, internal management offices, kindergarten, commercial shops faces the public street with primary and secondary school, health center under construction. Not far from the area, there are international primary school, secondary school, Afra big mall, big green area, oil station, public library and social clubs and police centre.	26	9
<b>Security</b>	There is a guard, camera, system of fire warning, beauty centre and sport club.	7	2
<b>Environment</b>	High density, no enough green space, lacks swimming pool, good aeration	4	1.5
<b>Economic aspect</b>	High cost not matching the services provided, provide cleaning facilities, the location reduces the transportation cost... provide jobs like cleaners and maintainers	4	2.5
<b>Social aspect</b>	Lack of better social services, most of the inhabitant from one social class, public participation in managing the community, provide social gathering and youth in playing football. Provide privacy but inside the unit	4	2
<b>Total</b>	Median	85	43

Source: Field survey 2016

## 4. Conclusions

This paper is about gated communities in Khartoum, the capital of Sudan. It shows that provision of better basic services and feeling the sense of security are some of the major drivers behind the widespread of gated phenomenon in Sudan. The paper shows that unlike gated communities worldwide, in Sudan the development of GC is more or less related to the degree of political stability and to the growth of the economy, mainly after the discovery of oil. Gated communities have introduced by private developers as a matter of business to attract expatriates and wealthy people. Currently, such business is at risk, especially after the collapse of oil due to the separation of South Sudan in the year 2011 and to the global collapse of oil prices. Further, the paper reveals that hiding behind gates end wrong signal to the outsiders and the local government. It implies that the environment (physical and social) outside the gate is not safe and the government is not shouldering its responsibility in providing better services. Gated communities has become a reality in Sudan and it becomes a choice for a number of domestic and foreign people. Thus, decision makers have to accept that and they should something to avoid its negative consequences and, above all ensure equity and access to services to all urban dwellers. The use of the sustainability model of this paper might help the planners to formulate wise policies for future urban development.

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