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**The land speculation process and the efficiency of greater Cairo region new towns' real estate markets**

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**A B S T R A C T**

This paper investigated the impacts of the speculation process on hindering the sustainable urban development of Greater Cairo Region' (GCR) new towns. Particularly the impacts of the emerging land speculation process since 2001 on causing many dysfunctions and inefficiencies in the GCR new towns' land and real estate markets, chiefly, its implication on raising the prices of their properties beyond the affordability of the vast majority of their potential settlers. The paper firstly established the theoretical framework used to investigate the mutual interaction between the land speculation process and the development process in the newly developed urban settlements within the mega metropolitan regions, emphasizing the possible implications of the former process for the latter. Then it assessed the strength of the emerging land speculation process in GCR new towns. Thirdly, it identified the main characteristics of the existing real estate markets in the selected case study for the profoundly analysis, El-Obour new town, to gauge the impacts of the speculation process on tackling its development processes. Finally, The paper concluded by suggesting some policy recommendations to overcome the negative implications of speculation, from which the researcher argued for the effectiveness of the leasehold system in the Egyptian context. The paper's findings confirmed the existence of land speculation processes in most GCR new towns, including the El-Obour new town, since 2001, which had been exacerbated and stimulated by many factors. This in turn, has affected the development process pace of El-Obour new town by raising the prices of its different properties, causing a severe shortage in the supplies of affordable land parcels and housing units thereby excluding its potential low and middle income settlers, and scattering its urban growth pattern.

**Introduction**

From 1978 to 2013, the Egyptian government had invested more than 46.43

billion Egyptian pounds in establishing eight new towns around Greater Cairo,

anticipating the movement of the metropolitan overspill populations voluntarily from the metropolis towards its eight new towns. It was anticipated that GCR new towns would accommodate at least 5.8 million and 9.9 million inhabitants by 2006 and 2013 respectively (MoHUUC 2005, 2006). However, they attained fewer than 660,000 inhabitants representing 11.4% of their anticipated population size in 2006 (CAPMAS, 2006) and less than 2.025 million inhabitants representing 20.5% of their anticipated population size in 2013 (UN-Habitat, 2013). Also they achieved low occupancy rates, with only 40% and 44% of their established housing units being occupied in 2006 and 2013 respectively (CAPMAS, 2006 & UN-Habitat, 2013). Moreover, only 38% of their sold out land parcels, from their commence date till 2013, were built (El-Obour NTDC, 2013). This reveals the existence of many rigorous obstacles hampering their development pace and their future sustainability, particularly the emerging land speculation process, as this paper conceived. In this respect, an exhaustive literature addresses and warns of the negative impacts of the land speculation processes on the pace of the development of planned new settlements, particularly in the developing countries.

They emphasize the impacts of both the stakeholders' role (speculator behaviour), and the adoption of improper land management policies, on hampering the new settlements from achieving their planned targets. For example, The United Nations global strategy for Shelter (2000) notes that the greatest failure of the developing countries in achieving the objectives of their newly planned settlements is due to their inability to stimulate an adequate supply of affordable and serviced land in their settlements and to

control the possible land speculation process which could emerge during the development of new settlements (UNDP, 2000). Also, the Habitat global report on human settlements in 1986 warned the developing countries of their ill-preparation and limited capacities to meet the complexities and challenges of managing and efficiently supplying different types of land parcels for a wider spectrum of real users beyond the speculators. It emphasized avoiding the monopoly or oligopoly in allocating most of the land parcels in the form of big parcel areas into the hands of a few investors (HABITAT, 1986). The Habitat report (1996) emphasized the importance of rectifying the current distortion in the developing countries' real estate markets, apparent in the form of the rigorous land speculation processes, and ensuring a sufficient supply of serviced land for the poor and low-income groups in order to combat their potential exclusion (HABITAT, 1996). Similarly, Al-Nowaiser (1995), criticized the weakness of the existing land development control and implementation policies in Saudi Arabia new towns and their impacts on stimulating very vigorous real estate speculation policies (Al-Nowaiser, 1995).

Contrarily, In the Egyptian context, although there is a considerable literature investigating the different causes of the failure of the Egyptian new towns in attaining their population targets and achieving their planned objectives, almost none examine the implications of the real estate speculation on hampering the development of these towns, except Stewart (1996). She implicitly mentioned the evolving land speculation process in three Egyptian new towns and its implications for raising the prices of housing units beyond the affordability of the vast majority of the workers in these towns

(Stewart, 1996). Therefore, this paper will focus on the implications of the emerging land speculation process in the Greater Cairo new towns on hindering their sustainable development processes, particularly its impacts on causing many dysfunction and drawbacks in their real estate markets, which in turn has jeopardized their social stability.

The paper is divided into five sections in addition to its introduction. The following section addresses the adopted methods and materials. Secondly, it contextualizes the land speculation process in terms of its concepts, types, indicators, factors and dynamics as well as it establishes a theoretical framework for the interdependency and the mutual interactions between the land speculation process and the development process of the planned new settlements. Thirdly, it illustrates some evidence for the existence of land speculation processes in GCR new towns and quantifies its strength in the selected case study using some indicators, as the key results of this paper. Fourthly, it underlies its implications on deterring the case study balanced and sustainable development process ensuring proper link with the literatures to highlight and discuss the significance of the results. Finally, the paper outlines some policy recommendations which might be able to curb the speculation process and boost a robust balanced development process in GCR new towns.

### **Materials and Methods**

The paper utilizes the quantitative method (based on many secondary data and statistics as well as many original data from the field survey for one of GCR new towns, the selected case study) and the in-depth single case study approach (Bryman, 2008). The in-depth single case study approach has been chosen to achieve a profound

interpretation for the implications of the land speculation process as an independent factor in hampering its sustainable development process as a dependent factor in the studied case. To assure the generalization of the findings of the studied case, the paper evaluated the current development status of the eight GCR new towns and the existence of speculation processes in their real estate market using many indicators based on many secondary data statistics and publications, which in turn helped the researcher to select a representative case study, as shown in Table (1). The utilized indicators encompass: the achieved population sizes at 2006 and 2013 in relation to the anticipated ones at 2006 and 2013, respectively and in relation to the ultimate targeted ones at 2032 to assess their development rates; the achieved occupancy rates in their housing units at 2006 and 2013 to validate the existence of the first type of speculation; and the percentages of the already allocated and sold areas at 2001, 2007 and 2013, respectively to their ultimate built up areas in order to assess the fever of purchasing land parcels in GCR new towns.

Based on these figures, Al-Obour new town was chosen because it fits with the recorded average of the GCR new towns. It successfully represents the eight GCR new towns, with subtle differences from the oldest, more populated ones such as Tenth of Ramadan and 15 of May. Moreover, it is an ideal case to display the influences of its rapid population growth 34.2% annually from 1996 to 2006, and 31.7% annually during the period 2006/2013 on boosting its emerging land speculation process, similar to the other seven new towns around GCR. Moreover, the paper relies on a lot of secondary data, particularly those related to the Al-Obour new town's population growth and real estate market, such as the

latest available land parcel enumeration at 2001, 2007 and 2013, to provide the researcher with the data of the already sold or allocated land parcels as well as the population census at 1996 and 2006 to obtain the population and houses data. In addition, the available data in the different departments of the El-Obour new town council' such as the departments of Project Management and Design, Community Development and Real Estate and the Property Registry were accessed. The data for the built land parcels was gathered from the latest high-resolution (IKOMS 1\*1 meter) satellite image for Al-Obour new town at April 2013 by using Google Earth software.

### **Contextualising the Land Speculation Process**

#### **Land Speculation Concepts and Definitions**

Many definitions for the land speculation process have emerged in recent years, some of these emphasized the defining of the term, others have linked the term with its main indicators or symptoms, whilst others have focused on its dynamic nature as a continuous process in any free market economy. An example of the first group is Kim and Suh (1993) who defined land speculation as the process of purchasing real estate property for the purpose of collecting capital gains rather than enjoying the benefits from its use. Also, Meesung (1990) identified land speculation as the tendency of the investors to gain abnormal capital gains through transferring real estate property to other beneficiaries without utilizing it in any kind of productive value-generating activities, seeking only the profits generated from the difference between the purchase and selling prices in a short time period (the price fluctuation or

volatility). In the property market, the term "speculation" is commonly used as follows: firstly, almost as a synonym of "investment", and thus concerning arbitrage in the equities markets, where investors' expectations are sometimes shaped in an inaccurate way (Malpezzi and Wachter, 2005). Secondly, the term designates the act of investors who purchase land, but keep it vacant without making any improvements to it, thus realising 'unearned increment', or in anticipation of future development opportunities, or they delay development until the uncertainty about the most profitable use is clear, this option being mostly related to planning regulations (Evans, 1983, 2004; Gaffney, 1956, 1994). From the second group, Wachter and Malpezzi (2005) identified the sequence order of land speculation process' actions as it involves the buying, holding or selling of real estate property to profit from its price fluctuation, rather than buying to use or to yield regular income via rent fees, dividends or interest. Therefore, the four main symptoms of the speculation process are: the high percentage of vacant undeveloped parcels, continuous increases in parcels' prices, high demand for land parcels and sometimes fake shortages in the parcels available for construction (Wachter and Malpezzi, 2005).

From the last group, Evans (2006) recognized the dynamic nature of the land speculation process and its dynamic consequences as the process of acquisition and holding the vacant, idle or underutilized land parcels as an asset in the hope of attaining value increments. This process caused the continuous increases in the prices of land parcels accompanied by high demand for different usable parcels and false shortages in the supply of land parcels. Noticeably, some like HABITAT

(1986) considered land speculation as a normal and natural process. In this vein, Foldvary (1998) considered land speculation as a gambling activity like other gambling activities such as lotteries and wagering money on a roulette wheel, which often does not pay and most of its anticipated revenues remain unrealized. However, this does not prevent thousands of speculators from participating in such ventures (Foldvary, 1998). Although markets may be inefficient, the speculative actions of the actors may be considered as rational and efficient, when they are considered within their geographical and institutional context (Triantafyllopoulos, 2010).

The impact of land speculation on lowering the economic progress was explained by many researchers such as Henry George (1879/1997) and other “heterodox” economists, using real estate property not for production use, but in order to earn profit from future anticipated price increases may be a fundamental cause of both micro-economic and macro-economic disturbances. They identify land speculation as a destructive and destabilising force in progressive economies. They maintain that land speculation, supported by an “elastic” or accommodating banking system, is a major underlying cause of economic depression (Triantafyllopoulos, 2010). Thus, as speculative prices turn savings away from physical capital, they lower growth and welfare (Olivier, 2000).

### **Dynamics of the Land Speculation Process**

Land speculation is a process, which is a unique and country-specific process. Although, there is no universal model for the land speculation process, generally, two

actions are considered the corner stones of its dynamics: the beneficiary’s decision to develop his allocated parcels and his expectations about the parcels’ prices in the future. The opportunity to acquire and develop real estate property is called “real options”. Noticeably, every agent considers the two options of either building housing units (using their parcels), or holding idle land (Foldvary, 1998). In this regard, there are three real estate concepts which have direct implications on taking either the investment or the speculative decision, namely: irreversibility, uncertainty, volatility and optimal timing (Sing, 1999). These three concepts, especially the real estate irreversibility, are quite useful in explaining why many urban parcels can be found vacant in the fully developed districts and why many investors decide to leave their parcels vacant and undeveloped even though rents and sales prices in the surroundings are positive (Evans, 2006).

Moreover, Lin (1999) criticizes the existing approaches dealing with the timing of land development, because they fully depended on demand – determined by ignoring the supply side and assuming all landowners will comply with the same rule of decision-making. Lin argues that there is no ideal timing for developing a land parcel in the case of a stabilized perfect market, which is characteristic of the absence of a land speculation process, the availability of real estate information and the recognition of the market rent values and conversion costs (Lin, 1999). Moreover the decision to wait-to develop is always underpinned with the fourth real estate option, the market uncertainty that results from the lack of accurate real estate data for landowners regarding the current and expected economic value of their parcels based on their location advantages. So the decision not to develop or sell their parcels

apparently relies on their expectations of future land price rises, which could or could not happen due to market uncertainty (Wachter and Malpezzi, 2005). Consequently the main factor which most real estate agents consider when taking their investment decisions either to hold or to sell are: the current equilibrium level of the land price, the expected parcels' prices in the future, interest rates, costs of holding idle parcels, currently allowable and anticipated housing densities and housing rents. There are mutual relationships between these factors (Eckart, 1983).

The speculation process initiates when the speculators realize the possible profitability of holding idle or vacant land parcels based on the expected land price increments (making assumptions about the likely changes in the price of land parcels) (Meesung, 1990). Therefore, the speculators buy, and then hold the land parcel for a long passive ownership period. The game then shifts from investment to gambling with plots of parcels which leads many speculators to appreciate the risky nature of the unsecured future revenues from holding the parcels and selling them at high prices in the future, rather than the security of having the cash in their hands (Feagin, 1998). The speculator calculates his expectations, in the case of choosing not to build or sell his parcel in favour of holding it for later sale at a higher price, to be equivalent to the current price plus his holding costs (the opportunity cost of putting his funds to alternative use to secure a return on his money) plus a profit for his risk taking (market uncertainty) (Wachter and Malpezzi, 2005). The most crucial question here is how the speculators finance their speculative deals. Lindeman (1976) confirms that, most of speculators do that by using leverage (getting loans from different banks) rather than by locking

their liquid and cash money into their speculative deals (Lindeman, 1976). Renaud (2003) estimated that the speculators pay less than 20% of the total speculative deal from their own money and borrow the rest. The speculator considers the contradictions between the speculation which needs a long period to come to fruition and the leverage requirements to pay the interest on the borrowed money periodically. The speculator can plan his volatility and optimal timing strategy to gain the highest possible profits by asking for a lowering of the interest rates to a minimal level, making the lowest possible down payment, making the smallest possible periodic payments, holding the parcels for the shortest possible period and deciding how many profitable parcels he can hold together whilst remaining within his limited cash money resources (Renaud, 2003).

The second stage of the speculation process initiates when the speculator is able to sell his parcel at a high enough price to make the return over the holding period of his investment worthwhile. Noticeably, in many speculative markets, any given property may pass through the hands of several speculators until it reaches its final beneficiary or developer. As long as the land has not been developed yet by a final user, the buyer could be tempted to be another speculator by holding the parcel for a while and selling it at higher price in the hope of a high profit (Meesung, 1990). In an advanced stage, the syndication becomes large when the speculators, brokers and sellers arrange groups of buyers to constitute partnerships to purchase land (Shang, 1997).

The end of the speculation process is initiated by two methods. Firstly, the intention of the speculator to build on his

parcel; this could be undertaken only in case of the huge demand which is able to escalate the prices to levels that persuade the speculator that holding the vacant parcel is no longer worthwhile (Kim and Suh, 1993). The second is when the seller (the most recent speculator) encounters some difficulties in selling his parcel due to the market saturation, government interventions, or unavailability of buyers with sufficient funds to purchase expensive parcels (Shang, 1997).

Consequently, the latest rounds of speculators are more appreciative of the secured values of their cash money rather than the risky promises of cash in the future, because they may find themselves unable to sell their parcels. Eventually, the inability to sell may lead to their inability to acquire sufficient cash and funds to purchase further parcels, stimulating the termination of the land speculation process (Luangaram, 2003). Therefore, the symptoms of the diminishing speculation process are the presence of many unsalable parcels, many of them unattractive to buyers or developers; the existence of many speculators helpless to extricate themselves from speculative deals they no longer like, and the selling of some of these speculative parcels at prices lower than the market price (selling at a loss). These are the main signs of the bursting of a price bubble (Feagin, 1998).

Recently, many researchers like Tideman (2004) have produced a new conceptual framework to interpret the dynamics of the land speculation process based on the theory of the 'winner's curse', so emphasizing the fact that most of the economic actors do not have a perfect knowledge of the market conditions. Based on the main assumption of this theory regarding the uncertainty of the future

value of land, the highest bid for purchasing the land will be introduced by the person who has made the greatest upward error in his estimates of the future land value. Therefore, the people who made the extreme upward errors will no longer invest in their land parcels, preferring to hold them idle or vacant to profit from any future increase in land values. The process of speculation continues until a macro-economic depression is caused by the crash of land prices, which occurs when the expectations of speculators are not realized (Tideman, 2004). In this regard, Cartier (2001) warns the developing countries against reaching the real estate speculation boom stage, in which a lot of non-professional speculators (camp followers) blindly follow the professional and well-informed speculators to gain some profits from the robust speculative market. Although they mainly lose their money, they impact massively by fuelling and distorting the already overheated speculative real estate market and exacerbating the emerging speculation process. They cannot anticipate the sharpening non-speculative peak and the turning-point where prices suddenly drop and crash in such a way that the whole national economy can be devastated (Cartier, 2001).

### **Land Speculation Causes and Factors**

The land speculation process in the developing countries is the product of many causes and factors. The first cause for stimulating the speculation process has stemmed from one of the inherited characteristics of these countries real estate markets. That is that land is considered the safest form of investments and as a hedge against actual or anticipated inflation. It is purchased and acquired by investors not for use or development but rather as a form of

security against economic uncertainty and instability. As such, the consideration of the land parcels as an investment avenue stimulates the land speculation processes which in turn have resulted in the distortion of these countries' real estate markets (Meesung, 1990).

The second factor is the existing dysfunction in the land parcel delivery system in developing countries where the public authorities usually lack any coordinated programme or designated phasing programme for extending infrastructure to the already allocated parcels or to control the allocation or selling of different land parcels to their final beneficiaries. This has resulted in an oversupply of available parcels combined with a spatial scattering of urban development (HABITAT, 1996). The oversupply of land parcels has boosted the expectations of the proactive speculators about the possible increases in the land prices and tempted many of the indolent and the naïve poor speculators to acquire the parcels to hold them for future gains (Renaud, 2003).

Thirdly, the failure of the taxation system on land value increases will exaggerate the capital gains that can be made from holding land parcels thus stimulating a massive influx of speculative investments in land purchasing and hoarding, as has happened in the Chinese real estate market (Shang, 1997). This is attributed to the lack of efficient devices to levy taxes on the increases in land value, which is crucial to increase the land holding and retention costs to curb speculative behaviour. Therefore, the absence of tax-levying devices leads to most of the capital gains from direct and indirect public investments benefiting the parcels' owners (AL-Mudhaffar, 1984).

Finally, the effects of rapid urbanization processes and population growth rates always exaggerate a robust speculation process due to their impacts on exacerbating the speculators' expectations about future demands. Therefore, speculators acquire and hold-up as many land parcels as possible (Meesung, 1990). This occurred in Fox Do Iquacu, one of the Fiasco Da Gama metropolitan area new towns in Brazil, after the construction of its huge hydroelectric plant during the early 1970s (Fragomeni, 1979). This also happened in the city of Valencia, Venezuela, after the establishment of its global industrial area to accommodate large-scale industrial firms (Gilbert, 1984). Both of these situations were accompanied by rapid urbanization rates. The implications of this being the major factor on fuelling the speculation process in the developing countries' markets derives from the real absence of any proper real estate information.

Therefore, most of the transaction price estimations, and their future trends based on the future demand and supply, are undertaken haphazardly and are conducted by spontaneous and unprofessional sellers and buyers, such as the speculators and brokers (Dali and Huange, 1996).

### **The Theoretical Framework for Identifying the Mutual Interdependency between Speculation and New Town Development Processes**

Land speculation processes will not only distort a settlement's real estate market by fuelling artificially high demand combined with a shortage in the supply of land parcels (Renaud, 2003), but it will also hamper a town's development process, which, as this paper assumes, is based on the continuous impact of increases in the



price of the land parcels to levels that are unaffordable by many classes, especially the poor (Dali and Huange, 1996). Additionally, the existence of some speculators who develop their parcels beside those who hold them for future gains has contributed significantly to the resultant scattered urban growth pattern (Dali and Huange, 1996).

### **Distorting the Demand and Supply in the Real Estate Market, Raising the Land Prices and Excluding the Poor**

The land speculation process distorts both the demand and supply sides of the real estate development process. The obvious impact of land speculation on demand is its ability to stimulate high levels of speculative demand, which is often misinterpreted by developing countries as a good indicator of the success and attraction of their developmental projects (Dali and Huange, 1996). Its implications for the demand side begin when any economic agent or speculator interprets an increase in the current price as a signal for further future price increases. This boosts the current demand thereby starting a new surge of increasing prices (Kim and Suh 1993).

This is attributed to the desire of the successful speculators who have sold their parcels to make new deals, often using their cash, which in turn fuels the demand further and overheats the real estate market (Dali and Huange, 1996). At the same time, the price increases could generate greater expectations among the non-speculators, which in turn increase their demand and hence prices. This is called the inter-speculation effects cycle, which can be quite lengthy because land markets often adjust slowly (Carr and Smith, 1975). This will stimulate further speculative demands

in the hope of gaining massive speculative revenues (Cartier, 2001). Consequently, the extent to which the speculation process will stabilize or destabilize the future prices and the accompanying highly speculative demand depends on the magnitude of the capital gains from the speculation process (Kim and Suh, 1993). This elusive rise in the speculative demand is combined with reductions in the effective supply of parcels, which in turn causes further increases in land parcel prices. This is because most investors acknowledge the huge revenues of holding their parcels vacant rather than building on them.

At the same time, they find difficulties in securing sufficient funds or loans to build their premises from the borrowing agencies like banks and different mortgage agents (Luangaram, 2003). To sum up, the rise in speculative demands combined with reductions in the effective supply of parcels, which in turn causes further increases in land parcel prices, work as a filter excluding the poor and low income classes from settling in areas where such a speculative market exists (DiPasquale and Wheaton, 1996).

### **The Implications of Land Speculation on Scattering the Urban Growth of New Settlements**

The scattered or discontinuous urban growth is the product of both land speculation and urban sprawl processes which is apparent in the form of leapfrog urbanization mainly found on the peripheries or fringes of big metropolitan areas (Evans, 2004). Consequently, it is not expected to occur in the planned new settlements in which their developments and real estate markets are controlled by their phased development schemes. Nevertheless, the land speculation process

has resulted in spatially dispersed urban growth pattern in several new settlements around the world, especially in the developing countries (Dali and Huange, 1996). Many researchers, such as Archer (1973), Eckart (1983), Foldvary (1998) and Cartier (2001), criticize the implications of the land speculation process on scattering the urban growth pattern and leaving a high percentage of the available land parcel stock idle and undeveloped. This is attributed to two reasons. Firstly land speculation is against building, even in the case of rapid population and urbanization growth, particularly for the big parcels having perfect location advantages, which could be held for a long time (Cartier, 2001). Secondly, many of the much closer parcels for the existing metropolitan areas have been purchased by or have been allocated for, speculators who purchase these parcels for the sake of future resale at a later date at a higher price (Archer, 1973).

Conversely, with the prominence of land parcels priced for future rather than current uses, the real urban development projects often shift to be located in the lower-priced areas where the speculation activities are absent. As a result, the real developers have been forced to develop the more remote parcels instead of those that are more accessible but whose owners are holding out in the hope of speculative gains (Foldvary, 1998).

Noticeably, many of the developing countries' real estate market agencies are continuously allocating further parcels in the remote areas before developing the already allocated parcels that remain vacant (Cartier, 2001).

Therefore, the developing countries have experienced high vacancy rates by leaving most of their developmental projects' land

parcels vacant and undeveloped. As a result, the achieved vacancy rate has varied from one third of the existing parcels (such as in Brazil) to one half, as in Greater Buenos Aires (HABITAT, 1986). In the developed countries a maximum of 15% is found (Kim and Suh, 1993). This in turn has caused the continuous raising of land prices, housing rents and a shortage in the supply of affordable housing for the low- and middle-income classes (Eckart, 1983).

### **Evidence for the Land Speculation Process in GCR New Towns and in Al-Obour New Town**

#### **Land Speculation Evidence in GCR New Towns**

GCR new towns as well as El-Obour new town (the case study) have witnessed two types of speculation, namely; land speculation and flat speculation, especially for the public housing units. The latter speculation strand is apparent in the existing high vacancy rate, which reached 60% of the existing housing stock in 2006 (CAPMAS, 2006).

This study will focus on validating and proving the extent of land speculation in both GCR new towns (see Table 1), by utilizing three pieces of evidence. These encompass; the percentage of the number of constructed land parcels from the already sold and allocated ones to-date to verify the existence of any holding behaviour on the beneficiaries' part, the increases in land parcels prices and the number of occasions on which the same land parcel has been sold in the last six years (number of transactions for each parcel) from 2007 to 2013. Additionally, the paper presents some relevant evidence to validate the existence of land speculation in El-Obour commercial and industrial parcels.

**Table.1** The GCR of new towns resettlement status and their real estate markets development as the main criteria to select the case study.

Indicator		Tenth of Ramadan	15 of May	Six of October	Bader	Al-Obour	AL-Shekin Zayed	New Cairo city	Al-Shorouk	Total
Population attraction and growth	Achieved population 1996 thousand inhabitant (1)	48	66	36	0.5	1	0.5	0.25	35	187.25
	Achieved population 2006 thousand inhabitant (2)	178.4	90.3	157.1	17.2	43.8	29.6	121	39	676.4
	Achieved population 2013 thousand inhabitant (3)	430	200	817	85	300	233	898	170	3133
	Ultimate population size thousand inhabitant (4)	2300	500	6000	840	600	675	6000	500	17415
	Anticipated population size 2006 (4)	500	350	1200	300	400	250	1000	315	4315
	Anticipated population size 2013	985	390	2492	445	454	364	2346	365	7842
	% Achieved population 2006 to ultimate	8%	18%	3%	2%	7%	4%	2%	8%	4%
	% achieved population size 2006 to anticipated	36%	26%	13%	6%	11%	12%	12%	12%	16%
	% achieved population size 2013 to anticipated	18.7%	40.0%	13.6%	10.1%	50.0%	34.5%	15.0%	34.0%	18.0%
	% achieved	44%	51%	33%	19%	66%	64%	38%	47%	40%

	population size 2013 to anticipated									
	% annual growth rate (1996-2006)	14	3.2	15.9	42.4	45.9	50.4	55.7	13	13.4
	% annual growth rate (2006-2013)	14.1	12.7	28.1	27.1	33.5	36.3	35.1	24.7	25.9
Urban Development growth rate	Ultimate built up area hectare (4)	33333	5125	25625	7708	13500	4333	29167	3833	122625
	Developed and served areas with infrastructure 2007 hectare (4)]	6008.4	1302.5	14368	1428.6	2941.2	1215.2	1984.2	16235	45483
	Developed and served areas with infrastructure 2013 hectare (4)	11691.7	4933.3	4391.7	2458.3	7650.0	5250.0	15583.3	4666.7	56625.0
	% developed areas 2007 to ultimate built up area	18%	25%	56%	19%	22%	28%	7%	424%	37%
	% developed areas 2013 to ultimate built up area	35.1%	96.3%	17.1%	31.9%	56.7%	121.2%	53.4%	121.7%	46.2%
Housing occupancy rate – housing speculation	Total constructed housing units 2006 [(4)	92356	36434	142244	21381	40026	32876	27764	108220	501301
	Total occupied housing units 2006 (2)	50796	23658	52958	6184	14243	10311	5763	38842	202755
	% occupancy rate 2006	55%	65%	37%	29%	36%	31%	21%	36%	40%
	% occupancy rate 2013	41%	53%	34%	21%	41%	37%	33%	32	38%

Land speculation	Sold areas 2001 hectare (4)	5407.6	1172.3	6466.4	1285.7	1647.1	378.2	453.8	1892	23353
	% sold areas 2001 to ultimate built up area	16%	23%	25%	17%	12%	9%	2%	49%	19%
	Sold areas 2007 hectares (4)	10395	2253	24857	2471	5088	2102	3433	2458	53057
	% sold areas 2007 to ultimate built up areas	31%	44%	97%	32%	38%	49%	12%	64%	43%
	Sold areas 2013 hectares (4)	22448.0	4472.0	8432.0	4720.0	10554	3235.0	19254.0	3458.0	76573
	% sold areas 2013 to ultimate built up areas	67%	87%	33%	61%	78%	75%	66%	90%	62%

(1): CAPMAS 1996, Different cities and governorates

(1): CAPMAS 2006, Different cities and governorates

(1): NUCA 2013, Different new towns statistics

(1): NUCA 2013, Different new towns real estate and land parcels enumeration

It is apparent from Table (1) that, GCR new towns are still in their earlier stage of land speculation, which called the real estate bubble booming stage. Three evidences can support this fact as follows;

Firstly, they are in first intensive early urbanization stage growing by population annual growth rates exceeds 15% annually, in spite of their inabilities to attain population targets, whereas as they hardly accommodate less than 20% of their anticipated population targets. This in turn reveals the existence of very rigorous land speculation process given the lack of the most of urban growth control mechanisms in these new towns.

Secondly, the existing vacancy rate in their housing stocks is escalating, has increased from being around 58% average in 2006 to reach as high as 69% in 2013. This in turn affirmed the existence of strong speculation process in the housing markets particularly in the public housing projects.

Thirdly, GCR new towns have sold out 70% of their ultimate land parcels to their different developers, which exceed their interim targets to sell a maximum of 37% of their ultimate parcels by 2013. Contrarily, as shown in Table (1), approximately 23% of the sold parcels have, so far, been built, versus 77% that have been preserved for speculation purposes. This is accompanied by huge increase in the prices of all parcels particularly the residential ones, which in turn has affirmed the social exclusion process of the poor and affected the pace of the balanced and sustainable development of these new towns.

### **Al-Obour New Town's Real Estate Market - Facts and Figures:**

El-Obour new town, the first new town of the second generation of the Egyptian new

towns, is a satellite industrial new town was commenced in 1985. It is located within the GCR boundaries, situated 30 km to the northeast of Cairo city. It is well connected with regional and national development corridors. El-Obour has witnessed five master plans in the last 30 years, in 1982, 1990, 1997, 2001 and in 2011. It was anticipated that its original ultimate residential area (2040 hectares) would have been developed by 2022, which represents only 15.2% of its newly ultimate designated built up area (13500 hectares). Its residential area consists of ten districts encompassing 62 neighbourhoods (NUCA, 2001). Its real estate and housing sectors' ultimate targets to be accomplished by year 2032 were to develop 17,036 residential land parcels and to construct 147 thousand different housing unit types for different socio-economic classes. It was proposed that El-Obour's would accommodate by 2032 an ultimate population target of 600 thousand inhabitants (El-Obour NTDC<sup>B</sup>, 2013 & NUCA, 20013).

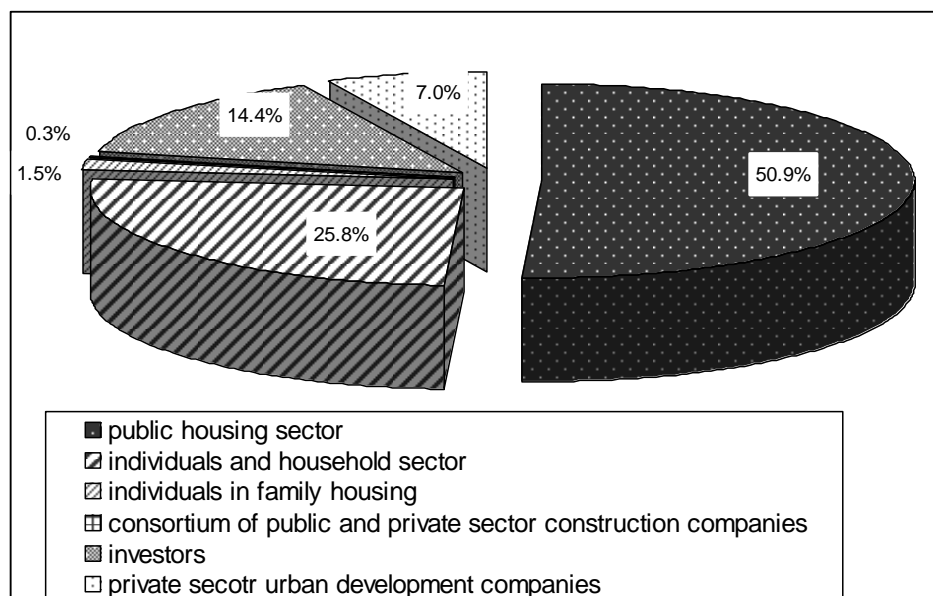
However, none of these ultimate targets have been achieved. By 1996, El-Obour accommodated only 996 inhabitants and less than 44 thousand by 2006 (CAMPAS 1996, 2006). Even though it was a new town in its rapid population intake stage and has witnessed a relatively rapid population growth between 1996 and 2006, achieving a forty-four fold population increase, the achieved population size in 2006 is still far behind its targeted one, representing only (7%) of its anticipated target (CAMPAS 1996, 2006), however, it is achieved 50% of its ultimate population target by 2013 (NUCA, 2013). In terms of El-Obour real estate achievements, it has constructed less than 4.5 thousand residential parcels so far representing 26.3% of its ultimate land parcel stock (El-Obour NTDC<sup>B</sup>, 2007, 2013). Moreover,

only 40.5 thousand housing units have been built representing 55% of those anticipated by 2006 (approximately 73.4 thousand housing units). This highlights the failure of its different housing stakeholders and developers to achieve their interim housing targets (El-Obour NTDC<sup>B</sup>, 2007, 2013). Five different categories of private sector developers, in addition to the public housing sector, were expected to establish El-Obour's ultimate 147 thousand housing units by 2032.

They include: individuals within the household sector, mainly self-help builders for the low income sector; small investors establishing family houses for the upper-middle-income classes; a consortium of private and public sector contractor companies establishing the upper-middle-income flats and houses, the investors building the high-income villas, and the high-standard private sector companies

establishing the high-standard villas and gated communities for the elite (see annex no 1). In spite of the massive state reliance on the private sector to establish 72%, 78%, and 84% of its anticipated housing units by 2007, 2013, and 2032, it has established by itself 51% of its existing housing units at 2006 and in 2013 (El-Obour NTDC<sup>B</sup>, 2007, 2013).

Moreover the government (public housing sector) has found itself the only developer for the middle-income class and in addition, has developed one third of the existing flats for both the low and upper-middle-income classes in cooperation with the private sector. Contrarily, the private sector, which has allocated 82% of its residential areas, has established only 49% of El-Obour's existing housing units, as shown Fig (1) (El-Obour NTDC<sup>B</sup>, 2007, 2013).



**Fig.1** The established housing units in 2013 by different developers

Source: Based on NUCA 2013 and El-Obour City Council 2013.

**Land Speculation Evidence IN El-Obour New Town**

The previous three evidences of the existence of land speculation process will also been utilized in in El-Obour new town residential parcels since the commencement of its last two updated master plan in 2001 and in 2011.

Regarding the first evidence, it appears that El-Obour council has misunderstood the nature of the existing high speculative demands. It has sold 78% of its ultimate land parcels to its different developers, which exceeds its interim targets to sell a maximum of 55% of its ultimate parcels by 2013. Contrarily, as shown in Table (2), approximately 33% of the sold parcels have been built so far, versus 67% that have been preserved for speculation purposes.

The gap between residential parcels’ annual sell rate (18.9%) and their built rate (7.8%) in the last six years varies significantly among different socio-economic classes. It appears that the most serious developers in building their parcels are the individuals of the household sector (self-help developers), and higher income developers, who have built 50% and 32% of their parcels devoted for establishing the low-income and high-income classes’ houses, respectively. Contrarily, the most indolent group are both the private urban development companies and the upper-middle-income groups who have built 20% and 13% of their parcels devoted to the elite in the form of gated communities and upper-middle-income family houses, respectively (El-Obour NTDC<sup>B</sup>, 2013)

**Table.2** Percent of sold and built land parcels, allocated for different classes, to the ultimate ones

Socio-economic class	Ultimate land parcels by 2022	Sold parcels at 2013	Built parcels at 2013	% sold parcels 2013 to ultimate	% built parcels 2013 to ultimate	% built parcels 2013 to sold ones 2013
Low and middle income	3639	3639	1826	100%	50%	50%
Middle income	0	0	0	0	0	0
Upper middle	3145	1823	226	58%	7%	12%
High income	8989	6740	2177	75%	24%	32%
High income (elite)	1263	1102	256	87%	20%	23%
<b>Total</b>	<b>17036</b>	<b>13304</b>	<b>4485</b>	<b>78%</b>	<b>26%</b>	<b>33%</b>

Source: Based on El-Obour NTDC annual parcels’ enumeration in 2013

The continuous increases in the prices of different land parcels in El-Obour new town provide more evidence of speculation. Similar to other GCR new towns which have witnessed their real estate markets’ booms since 2001, the average price per square metre of the different land parcels in

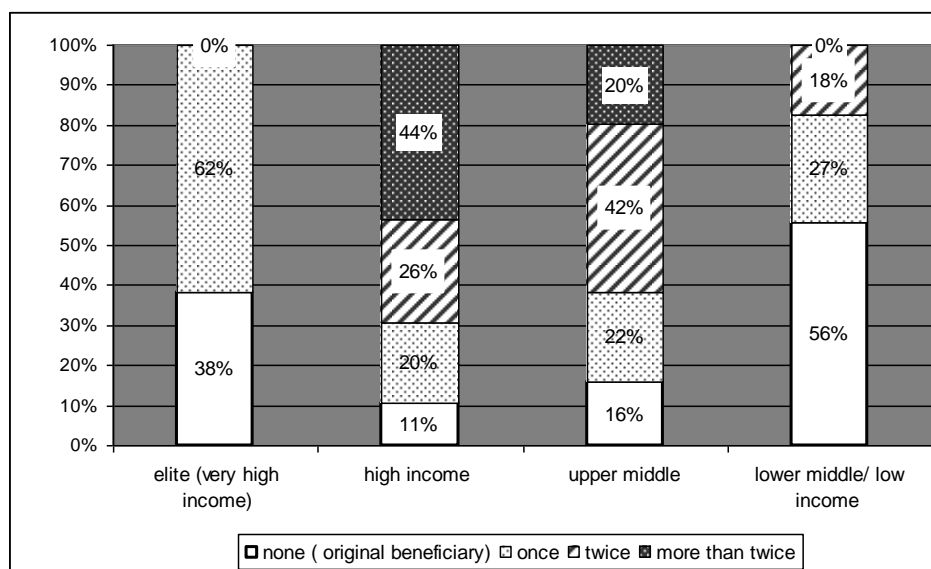
El-Obour new town has increased significantly from 50L.E in 1994 to 250L.E in 2001, then to 3000L.E at 2013 and in excess of 5000L.E for one of the big parcels (4-10 hectares). The annually increasing rate in the prices of land parcels located in this new town during the period



from 1994 to 2013, which reaches 17%, is approximately two-fold higher than the official inflation rate (9.5%) during the same period (El-Obour NTDC, 2013). This indicates that, a speculative race for purchasing different residential parcels has been undertaken, to the extent that El-Obour new town has sold more than 10.4 thousand residential parcels in the six years from 2007 to 2013. This represents an approximately three-fold increase on those that had been sold in the preceding years from its date of commencement in 1985. Strangely, the most active land speculators were the low-income and the upper-middle-income beneficiaries who have sold in the period (2007-2013) more than six-fold and three-fold respectively of what they sold before 2001 (El-Obour NTDC, 2001, 2007, 2013).

Regarding, the third evidence, the number of frequent transactions or selling and exchanging the same parcel by different speculators is also increased. As shown in

Fig (2), based on the findings of tracking the number of sales of the same parcels in the last six years from a designated sample (50 parcels allocated for each socio-economic class beneficiaries), half of the current parcels at 2013 had been sold more than twice during the last six years from 2007 to 2013, accompanied by significant increases in their price. Contrarily, only 20% of the original parcels' beneficiaries still retain their parcels, while the rest have been sold by the original beneficiary to another one. Noticeably, the most speculative submarkets are to be found in both upper-middle and high-income land parcels in the form of houses (build your own house) and villa types respectively. The most non-speculative submarket is the low and middle-income land parcels, where 56% of their original beneficiaries are still maintaining their allocated parcels combined with the fact that many of them have started developing their parcels (El-Obour NTDC, 2007, 2013).



**Fig.2** Number of sales of the same parcel in the last six years from 2007 to 2013

Source: based on El- Obour annual land parcels' enumeration 2007, 2013.

El-Obour new town has also encountered a serious land speculation process in its

industrial land parcels by an industrial speculator, who aimed to benefit from the

existing industrial incentives offered by either the national industrial development agency or NUCA. In 2013, 57% of the existing 1800 industrial plots were still idle and undeveloped, despite the vast majority of their owners having already been issued with their construction licences (El-Obour NTDC, 2013). Also, only one third of the existing 4534 non-residential premises were in operation and in service, versus 53.5% which had either temporarily or permanently been aborted, postponed, or preserved for speculation purposes (El-Obour NTDC<sup>B</sup>, 2013). Moreover, El-Obour new town has witnessed an adverse land speculation process for its service parcels located in the service centres. By 2007, only 8% of the sold service parcels had been built, indicating the speculative intentions of their owners to retain their parcels and keep them out of the market (El-Obour NTDC, 2013).

Looking ahead, the Ministry of Housing intends to sell 70% of the remaining 3,230 hectares land area in El-Obour new town by 2032 by using the random probability toss (draw) system to select the final beneficiaries from the eligible candidates whilst selling 30% of them in auctions for the highest available prices (NUCA, 2013).

### **Implications of Land Speculation for Hindering the Resettlement into El-Obour New Town**

The land speculation process has affected four aspects of the resettlement process in El-Obour new town: its impact on hindering the population growth and completing the development of many districts where the speculative process is very rigorous; excluding the poor and low income from settling accompanied by a limitation of the opportunities to obtain affordable housing units; scattering its

urban growth and distorting the town's real estate market by transforming it into a robust speculative market.

### **Implications of Speculation Process in Hindering the Population Growth of Different Districts**

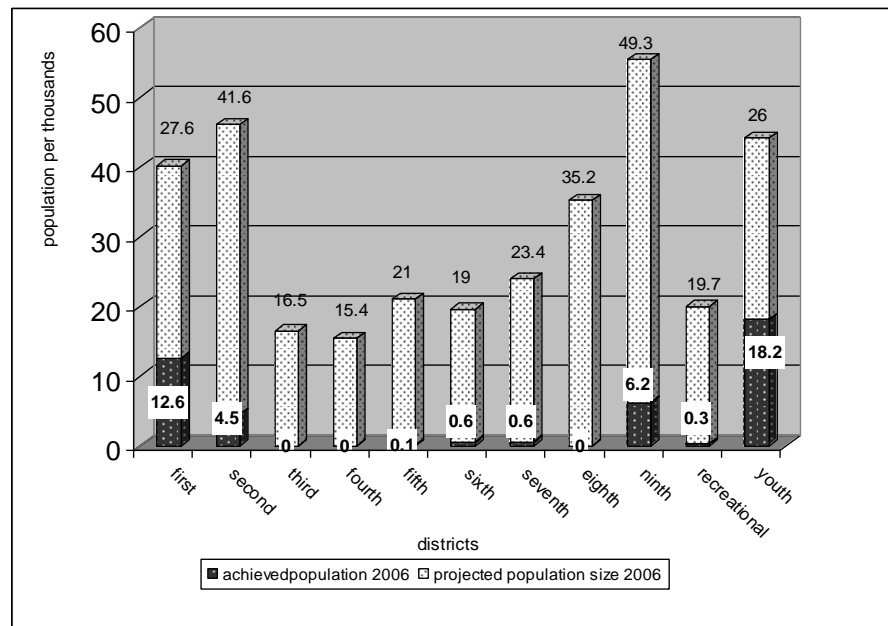
Concerning the impacts of speculation on hindering the population growth in the different districts of El-Obour new town, it is found that most of the current settlers have settled in only four of the ten districts and in only 23 of the 62 neighbourhoods. This leaves two-thirds of the districts vacant and idle. Noticeably, most of these unsettled districts have been served with most of their infrastructure needs, causing the emerging diseconomies of under-utilized infrastructure and services. Moreover, three of the four most populated districts have been developed by the public housing sector for the low- and middle-income classes accommodating more than four fifths of the population size in 2013 (El-Obour NTDC, 2013). Contrarily, as shown in Fig (3), three of the high-income districts, developed by the private sector, have not received any population at all, and the remaining five had received negligible populations of less than one thousand in 2013 (El-Obour NTDC, 2013)

### **Implications of Speculation on the Exclusion of the Low-income Class from Settling in El-Obour**

The evolving exclusion of the poor and low-income classes from El-Obour new town (and other GCR new towns as well) is the product of many factors rather than just the result of land speculation. These factors include the state's withdrawal from building for these classes, expensive and unaffordable housing units provided by the private sector, which emphasizes the

establishment of luxury housing compounds, and the lack of many of the basic services and poor transportation facilities. However, the speculation process has exacerbated their exclusion. The empirical evidence for the impacts of the

speculation process in hindering the resettlement and development processes into El-Obour new town is shown in Table (2). As much as 74% of the respondents agree that there has been



**Fig.3** Achieved and anticipated population size for El-Obour' different districts in 2013  
 Source: based on CAPMAS 2006 and (El-Obour NTDC, 2013).

**Implications of Land Speculation Process on Scattering the Urban Growth of El-Obour New Town and Distorting its Real Estate Market**

Regarding the evolving scattered urban growth, although 76%, 53%, and 72% of its ultimate residential, services and industrial land parcels respectively have been sold. Throughout the city, only 37%, 8%, and 40% of their plots respectively have been built on, and that in a dispersed and scattered manner, due to the absence of a planned phased programme. Such a programme is crucial to the prioritisation and harmonisation of the gradual allocation and development of the parcels in different districts (El-Obour NTDC, 2013).

Consequently, the oversupply of different land parcel types accompanied by the provision and servicing of most of them with their infrastructure and facilities needs has caused the evolving diseconomies of infrastructure and service provision. Most of these facilities are either outright unused or under-utilized. Spatially, only three of the ten districts and only twelve of the sixty-two neighbourhoods have been populated. Four districts are outright vacant and the rest have received negligible populations of less than one thousand. Consequently, the scattershot nature of this city' urban growth has caused many urban and real estate problems. Firstly, is the inability of the development corporation to complete the development of the most

populated districts and to leverage their liveability through satisfying their services, infrastructure and transportation needs, stimulating their social life, and developing their service centres. Secondly, it has achieved only low occupancy rates even in El-Obour's most populated districts. Finally, the emerging urban and socio-economic duality between the well-secured splendour of the gated communities and luxury residential compounds for the rich, compared with the poor, deprived, needy districts of the low- and middle-income classes. The former are not only the least settled districts, but also the seasonally settled ones shaping these compounds as the holiday or weekend resorts containing many second homes for the affluent people whilst the latter are the most populated districts accommodating 85% of the already settled population, as shown in Fig (4) (El-Obour NTDC, 2007, 2013)

### **Some Policy Recommendations to Curb Land Speculation**

Public authorities should develop innovative policies to promote further access to land parcels by all income groups as an integral component of their resettlement policies in their new settlements, and to curb the existing speculation process. The available policies and mechanisms to stop the land being an attractive form of speculative investment encompass: taxation, credit controls, a leasehold system, land banking and the expropriation or seizing of allocated parcels. The researcher will discuss the doctrines and effectiveness of these four policy measures in curbing the land speculation process combined with an emphasis on the appropriateness and effectiveness of the leasehold system to control the land speculation process in El-Obour new town.

Retention taxes will reduce the profitability of holding idle parcels and increase the holding fees. In such a situation, few investors could bear the imposed tax burden, which, if combined with construction incentives, could change the situation to one rendering the production of housing units as the more attractive opportunity (Hanayama, 1986). Therefore the speculative landowners should be levied an annual property tax on their parcels, equals to what is called land valorisation (land betterment levy), by asking the beneficiaries to participate by bearing a specific share of the cost (Tideman, 2004).

Credit control might also be used to prohibit the commercial banks and fund-raising agencies (especially the publicly owned ones) lending their limited funds for the purchase of vacant parcels which are unlikely to be immediately developed (Evans, 2004). It is crucial to prevent financial institutions from generating loans and lending on raw parcels, which will not produce any significant income until the development process has taken place (Feagin, 1998). However, this mechanism is not effective in curbing speculation and it could help only in the case of excessive speculation by hampering only the small speculators from accessing public funds and increasing the risks of their speculative decisions (Renaud, 2003).

Land banking refers to the acquisition and maintenance of stocks of land tracts, large enough to secure the future public and private urban development needs. Then the public authority will release these parcels, on a specific designated date, to the public and private developers based on future land prices (Hanayama, 1986). It could accept some kind of joint-venture to reduce the huge opportunity-costs of preserving these

parcels from the market for a specific period of time, such as the ambitious Malaysia and Singapore land banking scheme to develop their new towns and their future extensions. Land banking is generally proposed to restrain land price increases and achieve a more orderly urban development pattern through elimination of the land speculation process' impacts (Wachter & Malpezzi, 2005). This depends on the creation of additional uncertainty for the speculators about the future timing, location, prices and the scale of disposing and selling the publicly preserved large tracts of land (Foldvary, 1998). However, the paucity of financial resources, the absence of a proper phasing programme to implement the development of new towns, a lack of managerial skills, procedures and legislation have lessened the efficiency of this mechanism as a means of hampering the land speculation process. It has also failed to guarantee the sufficient supply of land parcels for the less privileged classes (Renaud, 2003).

Leasing or the leasehold system is perhaps the most effective mechanism for protecting the publicly held parcels from speculation purposes and encouraging their development. In a leasehold system, public and communal land, especially the serviced parcels like those of GCR new towns, are outright prohibited from selling and they can be made available for use through issuing leasehold contracts for periods running from at least ten years (like Egypt) to 90 years at maximum (Kim & Suh, 1993). Generally, leasehold for residential parcels runs from forty to fifty years (HABITAT, 1986). In China, the longest period of leasehold lasts for 70 years for residential parcels; 50 years for industrial, educational, cultural, health, sport and mixed uses and 40 years for commercial, entertainment and tourism activities (The

World Bank, 1993). The leasehold system separates land-use rights from ownership. However, land-use rights granted by a leasehold system for the occupier can be transferred, sold, rented, exchanged or mortgaged (Shang, 1997). In a lease system what is traded in the market is not land but a bundle of rights and obligations to control different parcel types (The World Bank, 1993). The government could lease the land parcels through auction, negotiation, grant or direct allocation to different urban users, including land development companies, who could also transfer leases on plots of serviced land to smaller private, cooperative or state-sponsored developers or to different individual beneficiaries to build their premises (Cartier, 2001). Institutional nonprofits users such as public hospitals, schools and libraries should only allocate their land parcels on a grant lease basis (Dali & Huange, 1996). For the profit users, using an auction system in leasing different land parcels has many advantages especially its ability to squeeze out the any potential speculation impacts from any transaction (Shang, 1997).

## **Conclusion**

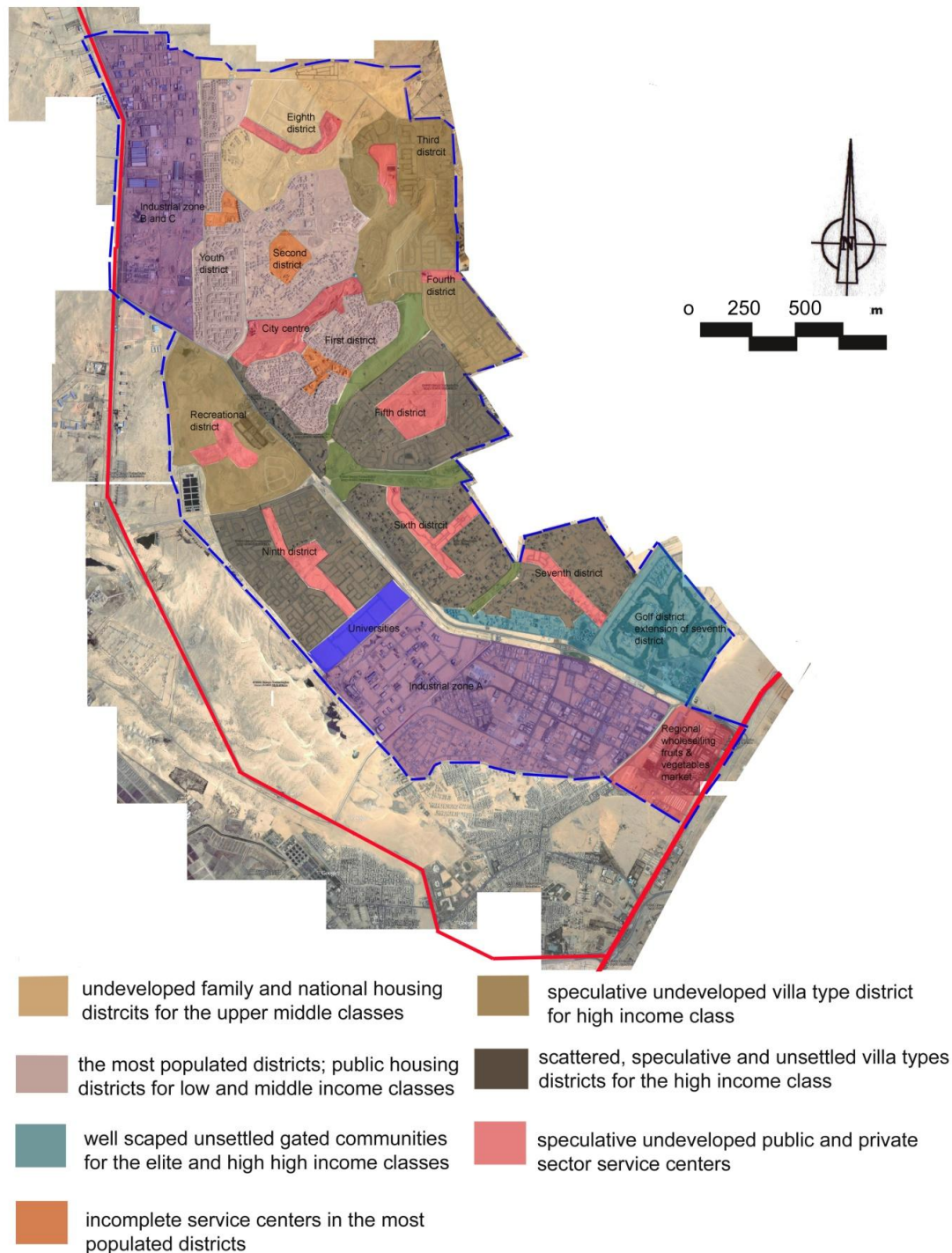
This paper has illustrated that land speculation as the invisible factor which distorts the real estate markets in GCR new towns generally, and in the studied case study of El-Obour new town specifically, by impairing the demand and supply sides through fostering the owners' desires and fever to purchase as many land parcels as possible and then holding them vacant waiting for later development. Noticeably, the paper has proved that El-Obour new town is a representative case for most of the eight GCR new towns. Most of GCR new towns have experienced what Cartier (2001) warned against reaching the real estate speculation boom stage, in which a

lot of non-professional speculators (camp followers) blindly follow the professional and well-informed speculators to gain some profits from the robust speculative market. The incremental increase in prices of land parcels has generated greater expectations among the non-speculators, which in turn increase their demand and hence prices. Although they mainly lose their money, they impact massively by fuelling and distorting the already overheated speculative real estate market and exacerbating the emerging speculation process, causing what is called the inter-speculation effects cycle, which can be quite lengthy because land markets often adjust slowly. Therefore, it is highly expected that the rigorous land speculation process of GCR new towns will last in the forthcoming 10 years. The land speculation process in GCR New Towns is the product of many causes and factors. The first cause is the consideration of the land parcels as an investment avenue, the safest form of investments and as a hedge against actual or anticipated inflation. The second factor is the existing dysfunction in the land parcel delivery system in these new towns, where the public authorities usually lack any coordinated programme or designated phasing programme for extending infrastructure to the already allocated parcels or to control the allocation or selling of different land parcels to their final beneficiaries. This has resulted in an oversupply of available parcels combined with a spatial scattering of urban development. Noticeably, many of GCR new towns' real estate market agencies are continuously allocating further parcels in the remote areas before developing the already allocated parcels that remain vacant. Therefore, they have experienced high vacancy rates by leaving most of their developmental projects' land parcels vacant and undeveloped. The third factor is the

lack of efficient devices to levy taxes on the increases in land value, which is crucial to increase the land holding and retention costs to curb speculative behaviour. The last factor is the real absence of any proper real estate information, which in turn has led to most of the transaction price estimations, and their future trends based on the future demand and supply, are undertaken haphazardly and are conducted by spontaneous and unprofessional sellers and buyers, such as the speculators and brokers. Therefore, the findings of GCR new towns supports Evans's (1995) arguments about the importance of supply side and government policies in relation to the formation of land prices that could be raised to speculative levels. These findings extend the existing interpretation for why many investors opt to leave their parcels idle even in the presence of a strongly growing and overheated real estate market, such as that in El-Obour new town. So it contributes significantly to the theory of ideal timing for developing a land parcel, which is fully dependent on demand-determined factors ignoring the supply side. Moreover, it contributes significantly to the existing Egyptian literature concerned with the constraints and barriers to the development of the Egyptian new towns by highlighting the evolving land speculation process as one of the key factors responsible for the current failure of Greater Cairo Region's new towns to achieve their planned targets which has hitherto been rarely identified. In El-Obour new town, the emergence of a very vigorous, rampant, land speculation process has hindered the resettlement process by distorting its real estate market and converting it into a highly speculative market, raising the prices of all properties beyond the affordability of its prospective settlers, excluding the low- and middle-income families from settling and

scattering its urban growth pattern. Finally, the paper recommends that leasehold system can constitute a good policy and

best practice for the future way ahead to curb any further speculation process in GCR new towns.



**Fig.4** The speculative and distorted real estate market in EL-Obour new town 2006

Source: Based on EL- Obour land enumeration 2007 and IKONOS image 2007 [14& 39]

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Annex.1 Al- Oubour New town Districts and its Main Urban Structure

