Effect of Governmental Housing Regulations on the Egyptian Housing Market: Focusing on Greater Cairo Metropolitan Region

Osman, Taher
Department of Urban Design, Planning and Disaster Management, Graduate School of Human-Environment Studies, Kyushu University: Doctoral Candidate | Faculty of urban and regional planning, Cairo University: Teaching assistant

Divigalpitiya, Prasanna
Department of Architecture and Urban Design, Faculty of Human-Environment Studies, Kyushu University: Associate Professor

Arima, Takafumi
Department of Civil Engineering and Architecture, Saga University: Professor

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Effect of Governmental Housing Regulations on the Egyptian Housing Market: Focusing on Greater Cairo Metropolitan Region

Taher OSMAN*, Prasanna DIVIGALPITIYA**, Takafumi ARIMA***

The housing issue in Greater Cairo metropolitan region (GCMR)'s has continued despite of the numerous policies that the government has introduced during the last 70 years. This research discusses housing policies changes and their effects on the housing issue in GCMR. Primary data were derived through questionnaire survey and secondary data from national censuses. The results find that the change in the general state policies did success in attracting more investments for public housing of low-income residents but failed to end the phenomenon of vacant housing or attract slums residents to new urban centers (NUC).

Keywords : Housing regulations, Housing demand, Housing supply, NUC, GCMR, Egypt

1. INTRODUCTION

Egyptian Centre for Housing Rights (ECHR) stated that the Expanding income inequalities between the top 20% and the poorest 20% of residents have deteriorated both poverty issues and concerning housing issues. As an outcome of this issue in 1992 about 19.4% of Greater Cairo Metropolitan Region (GCMR) urban residents, or nearly 2.5 million people, were living in informal settlements. These numbers matched with a similar ratio in 1974, when GCMR’s total population were smaller.

The housing issue mainly occurs because of the inability of newly married to pay for suitable housing. They are compelled to live with their families, generating housing crisis on both the exciting and the new families. Whereas rents might be affordable up-front key money usually prevent many new families from entering into the housing market. Zurayk and Shorter (1988) have shown that one-third of GCMR’s newly married live with their families, with proportion dropping to 20% once they have their second child. Ibrahim and Ibrahim (2003) mentioned that the lower middle classes, which represents the larger number of GCMR’s residents, are mostly unable to pay for appropriate houses.

Despite 70 years of attempts by the government to help low income families to find an appropriate houses particularly in GCMR, as it has being the case in most Egyptian cities and villages, unplanned settlements around GCMR sheltered more than 7 million inhabitants in 1998. As of 2006, informal settlements were estimated to house more than 65% of the population of GCMR (10.5 out of 16.2 million inhabitants), and the rate of population growth in these areas is higher than other cities averages, with an increase of 2% between 1996 and 2006.

On the other hand, number of vacant housing units in GCMR was 5.4 million units that located in low, middle, and high class GCMR districts (Fig.2 and Fig.3). Owners of vacant units refrain to rent or buy their housing units for some reasons such as speculations to increase prices, keeping for
sons married in future, and real estate is the best way to keep their savings in Egypt away of inflation and taxes. On the other hand, the housing units prices in existing formal districts of GCMR is not attainable for large percentage of Egyptian people who seeks for new house since the large gap among community incomes and the high rates of increasing prices of formal units. So, people find the proper way to find a housing unit in the unplanned urban expansions in agricultural lands surround GCMR (Fig. 3).

In fact, there are no housing in GCMR today that are affordable to the normal residents to rent. Low-income residents live in congested basements, rooftop dwellings, or in other inappropriate living quarters. Housing shortage pushed by economic restrictions that has set a high price on the capability to form a nuclear household, with a sustained combat to collect resources for purchasing a room or a flat which contribute to put off in marriage preparations among young people. So their families and new families have to live jointly, agreeing to a lesser standard of housing as one way to overcome housing crisis.

This research seeks to find the effect of accumulated changes of governmental housing policies to meet the housing problem in GCMR. We focus on the visible facts of housing dilemma in GCMR which represents in, 65% of the 17 million of Cairo residents' lives in slums while 30.5% of total residential units are vacant in 2006.

**2. STUDY AREA**

GCMR is comprised of the whole of Cairo Governorate and the urban areas of Giza Governorate (west of the Nile) and Qaliubia Governorate (north of Cairo Governorate). Governorates are the major municipal institutions in Egypt. And there is no macro-administrative structure that constitutes a GCMR as a single administrative structure. But, there are service institutions for wastewater, water, and public transport whose service area covers the whole GCMR. The “GCMR” has been founded with urban planning objectives under General Organization for Physical Planning (GOPP). Cairo is not only the Political capital of Egypt, but also its service, social, economic, and administrative hub.

In the research works of metropolitan areas in developing countries, GCMR is usually mentioned as symbol of congestion, slum dwellings and housing issues among the urban poor. Specially, shanty houses, and informal vertical expansions of dwelling house blocks are unusual in Egypt’s capital metropolitan region. As the biggest city in Africa and the Middle East, Cairo, has long history of severe and a concerning housing issue. According to 2006 census (CAPMAS), it was found that GCMR core, outskirts and exurbs have 17,600,000 residents. Since the 1996 census, GCMR has added around 3,000,000 people. The city itself has 7,800,000 residents. Whilst Giza contributes nearly 5,800,000 residents to GCMR’s population, nearly 3,900,000 live in Qualubya governorate. Over the last century up to 1996 the city’s residents have grown four times but the area of urban units has expanded only twofold.

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Fig. 1 Location of GCMR within Egypt
Source: JICA, 2008

Fig. 2 NUC within Main Urban Areas at GCMR

Fig. 3 Sample of the Housing Units Classes in GCMR
Source: JICA, 2008
3. METHODS AND DATA

The main goal of this study was to investigate the insufficiencies and deficiencies of official government regulations and laws to meet the housing issue in Egypt between 2001-2013 focusing on GCMR as case study.

To achieve this goal we followed following integrated method:

A. A questionnaire survey conducted with professional housing experts in the Egyptian housing market.
B. Classify the respondents' answers under main topics to facilitate comparing survey results with the previous researches.
C. Compared results of questionnaire survey with the previous researches conducted to study housing issue for the last 70.
D. Analyzed the information given by the professional experts who are working housing and planning field using the survey, and previous research don by various researchers. These analyses provided an integrated image of the nature of housing issue in GCMR.

The questionnaire survey was conducted from April 2013 - September 2013 with samples included professional experts of Housing market included: official dwelling houses authorities, planners, real property agents, land building contractors, and major property association's presidents. A non-probabilistic purposive sampling method was used to select respondents for the questionnaire. Creswell and Clark (2007) mentioned that purposive sampling is useful in urban planning to select respondents who have background knowledge of central phenomenon or key concept being discussed. In this case, people with professional experience in the supplying dwelling houses were considered as experts. The samples were chosen from the corporations that play related functions in dwelling houses supplying. From the Ministry of Housing and Urban Development in GCMR, the director in the regional planning department has participated.

Two samples from each of the following Official housing Authorities in Egypt were asked: The Ministry of Planning, National Investment Bank, Ministry of Housing and New Urban Communities, the Central Authority for International Development, and the New Urban Communities Authority, General Organization for Physical Planning (GOPP), the Egyptian Cooperative, General Building and Housing Cooperative Authority, and housing cooperative societies.

We prepared a questionnaire with one question with open answer "although 70 years of housing policies and regulations mainly to help low class income peoples, why 65% of GCMR population are living in slums?". The questionnaire has attached a summary of the housing laws during last 70 years (table 1). The respondents asked to submit their responses in any number of words, adding forms or tables, and documents. Respondents submitted their responses in different forms with sketches, table, and references for related important projects in their point of view.

Questionnaires were sent out to employees through their employee's head offices and also retrieved from them. In all, a total of 857 questionnaires was distributed and 642 were returned with answers. Five out of 215 questionnaires returned were void because of deficient answers. The survey concluded with 642 valid questionnaires, which represent a proportion of return 74.9%. This sample size is regarded to be appropriate and for this study. Taylor (2012) mentioned that, for an uncertainty target residents, 300 - 500 samples could work as long as the survey is representative.

The contents of the respondents answers were quiet similar, we summarized it under main titles and then added some related information from related literatures to be more explained for the readers. At the time of the field-work, there were 4 Governorates institutions' authorities, and 529 Local administrative units in the research area. The samples of public sector employees in the study area were not collected since the failure to access employee groups. Some of the regional authorities in GCMR are divisions of national institutions and they needed an official approval from head office to participate questioner survey.

A multi-stage sampling logic was chosen to select samples from residents. Firstly, lists of institutions that come under the GCMR government were gathered in to three clusters. The second stage those institutions were stratified in to classes of professions and relevant functions. From each stratum, institutions were indiscriminately chosen and letters were sent to them asking permission to perform the survey. From the local municipality cluster, 8 institutions , and 10 from the GCMR sub-Governments cluster accepted the invitation.

We have summarized the respondents' answers under a number of main topics (table 2). We had to eliminate number of responses from the list since the small amount of samples. The number of eliminated answers were 28 answers concentrated in mainly three topics: the failure to connect informal housing with infrastructure and amenities, Failure to decrease areas of informal housing zones, and failure to decrease the corruption in GCMR housing authorities in allocating housing budgets for urban areas.
4. EGYPTIAN HOUSING REGULATIONS 1940-2001

Before 1940s, Egyptian dwelling market was largely owned by foreign owners, until the first rent control legislation in 1947; freezing rents at their 1941 level and preventing owners from deporting their leaseholders. The most intemperate alterations to the law took place from 1952 to 1965. In line with the 1952 revolution’s populist spirit, formerly fixed rents were decreased further and controls were expanded to cover newer units. Since 1952 the state has interfered in the establishing of social dwelling houses, such as workers dwelling house projects around industrial centers in GCMR7,11). In 1960s, the government participated in the building of low-cost public housing for the middle classes on GCMR16,19).

A. The Rent Control Legislation, 1962

The 1962 rent control legislation permitted the continuation of ownership from the renter to their inheritors. From 1965 to 1975, the construction of public dwelling houses decreased to less than one-third of the former decade. With high rates of population growth and sustained urbanization, the gap between demand and supply for both private and public dwelling houses has increased. Starting from 1965 a governmental 5 years plan has strengthened the rent control by lowering 20% of the rental price of dwelling house units established after 1944. This created the environment for decline of the rental dwelling house supplies as servicing expenses override the rents17,18,25).

B. Open Door Economic policy, 1975

After 1975 as an outcome of the open door economic policy (lnfitah) and privatization schemes, the government declared that it would only be in charge of building of low-cost dwelling houses and that the private sector will be responsible for the supplying of other house units. So, the government declared the law 43/1974 which targeted at Arab and foreign capitals, private sector corporations worked in the building of upper and middle-class houses, benefiting from different tax exemptions. For the next 5 – 8 years, tax exceptions of 10 – 15 years for house construction has established new urban communities8,9). Based on that, There was a considerable growth in public housing, and nearly 30,900 units per year were built15,19).

C. Dwelling Houses Law, 1981

In 1981 the government introduced the dwelling houses law of 1981 whereby one-third of all dwelling house units

### Table 1 Egyptian Dwelling Houses Laws and Regulations 1941-2001

<table>
<thead>
<tr>
<th>Date</th>
<th>Legislation</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001-</td>
<td>Law No 148/2001</td>
<td>Mortgage Law is prepared to supply incommodious long-term funds for purchasing, constructing and renewing real property at up to 90% of the estimation of the dwelling houses unit.</td>
</tr>
<tr>
<td>Now</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1996</td>
<td>Law No. 4/1996</td>
<td>Article 14 of the bill states instantaneous rent grows on the fundamentals of the year of the building was done (rents grows by 10% for units done before 1 January 1944, by 3% for condominiums in buildings accomplished between 9 September 1977 and December 1996). Rents on all units are then to grows yearly by 10% for five sequential years, after which the market is presumed to take over</td>
</tr>
<tr>
<td>1986</td>
<td>Law No. 2/1986</td>
<td>Leaseholders right to get a new, dissociate tenancy agreement from the proprietor, with the permit of the former leaseholders</td>
</tr>
<tr>
<td>1981</td>
<td>Law No. 136/1981</td>
<td>Deluxe condominiums are excluded from rent control</td>
</tr>
<tr>
<td></td>
<td>Article 15</td>
<td>Investors are able to obtain low avail loans supplied by State Agencies, and banks</td>
</tr>
<tr>
<td>1980</td>
<td>Law 52/1980</td>
<td>Restricted plot coverage to 60% of the total area, with land division laws assigning 33% of the land for public uses.</td>
</tr>
<tr>
<td>1977</td>
<td>Law No. 49/1977</td>
<td>Specified rent as 7% of total cost; permitted foreigners to purchase units, and permit units to be purchased as residential units</td>
</tr>
<tr>
<td></td>
<td>Article 48</td>
<td>Renters right to barter, release, or re-rent their condominiums without proprietor’s permit</td>
</tr>
<tr>
<td>1976</td>
<td>Law 106/1976</td>
<td>Enjoined building codes for high building standards that grown constructing expenses</td>
</tr>
<tr>
<td>1969</td>
<td>Dwelling houses law No. 52/1969</td>
<td>Renters can inherit rental condominiums. Prohibitions of side payments, key money, or advance rent</td>
</tr>
<tr>
<td>1964</td>
<td>Dwelling houses Sector Socialization Act</td>
<td>Total transformation from private proprietorship to public proprietorship for the biggest 119 building corporations. united them in 35 public agencies, which also administer the residential real estates socialized in 1981</td>
</tr>
<tr>
<td>1962</td>
<td>Law No. 46/1962</td>
<td>Specified rent price as 3% of land price and 5% of building cost</td>
</tr>
<tr>
<td>1961</td>
<td>Law No. 168/1961</td>
<td>All rents to be decreased by 20%, for all condominiums, without exception, without appeal</td>
</tr>
<tr>
<td></td>
<td>Nationalization laws</td>
<td>Conversion of the 61 biggest privately possessed real estates, including residential multiplexes, into public property</td>
</tr>
<tr>
<td>1954</td>
<td>Dwelling houses Law of 1954</td>
<td>New lowering for all rental condominiums by 20% without exception</td>
</tr>
<tr>
<td></td>
<td>Article 50/1954</td>
<td>Renters right to repine about servicing, which may output in a rent reduction</td>
</tr>
<tr>
<td>1952</td>
<td>Military order 129/1952</td>
<td>Rent lowering by 15% for all condominiums established between 1944 and 1952, with no proprietor’s right to defy it</td>
</tr>
<tr>
<td></td>
<td>Military order 169/1952</td>
<td>A new tax of 13.7% of all rents, even on condominiums established before 1944</td>
</tr>
<tr>
<td>1947</td>
<td>Law No. 121/1947</td>
<td>blocking rent rates, and concerning rent them to total cost</td>
</tr>
</tbody>
</table>
within each residential building would be available for sale. This law stated that all dwelling house investors can obtain low interest loans 16). Later dwelling houses laws decree No. 2/1986 gave leaseholders the right to get a new, dissociate tenancy agreement from the proprietor16),17).

D. Macro Economic Policies of 1990s

During 1990s fundamental modification of policies and economic reformation at macro level have worsened the dwelling houses problem for lower and middle class residents of the community, as most public dwelling house investment was directed at supplying of dwelling house units that become unaffordable to the larger proportion of the residents. Consequently, high rates of vacancies were observed within low-cost condominiums in The New urban community (NUC). Cooperative loans and building permits were mainly helped middle and high-class clusters, as the private capital has triggered substantial growth in land prices. The sustained growth in land speculation within and around urban centers caused increasing land prices, leaving low and middle income urban dwellers with no affordable alternative other than joining the informal dwelling house market17),25).

E. Rental Law No. 4, 1996

In 1996, Rental Law No. 4 created two major transformations in the Egyptian real estate market. Firstly, it ended the risky inherit of assets from the renter to their inheritors. Secondly, it specified that the rent contracts must be restricted to a specific time period, without any bonds on price, other than that has formerly agreed upon. Article 14 of the 1996 law created instantaneous rent growth with a 10% yearly growth of housing units for five consecutive years7),8),9).

F. The Real Property Investments Law 2001

In 2001, new trend of housing regulations, The Real property Investments Law (148/2001) – better known as the Mortgage law. This law is introduced to provide long-term loans for purchasing, building and renewing real property at up to 90% of the price of the housing unit. The new mortgage law defined the widespread pro-renter culture, permitting banks to reclaim real estates and deport proprietors who default. Mortgage loans provide up to 90% of the price of the asset, with a monthly pay at nearly 40% of the debtor’s net monthly income, and with repayment duration of 25 to 30 years9),14),25).

5.RESULTS OF QUESTIONNAIRE SURVEY

Based on the results of the questionnaire survey, we have classified the responses into three main topics that reflect their opinions on the failures and success of governmental regulations to meet the demand for housing in GCMR from 2001 – 2013 (Table 2).

Table 2 Questionnaire Responses with Number of Answers for the Main Responses Topics

<table>
<thead>
<tr>
<th>Results</th>
<th>Main responses topics</th>
<th>No. answers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Failures</td>
<td>Failure of governmental policies to decrease the numbers</td>
<td>299</td>
</tr>
<tr>
<td></td>
<td>of Vacant housing units in main core of GCMR</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Failure of governmental policies of NUC around GCMR</td>
<td>213</td>
</tr>
<tr>
<td></td>
<td>to attract residents instead of slums</td>
<td></td>
</tr>
<tr>
<td>Successes</td>
<td>Success to increase in the housing investments for public</td>
<td>102</td>
</tr>
<tr>
<td></td>
<td>housing</td>
<td></td>
</tr>
</tbody>
</table>

5.1 Failure of Governmental Policies to Reduce the Numbers of Vacant Housing Units in GCMR

Based on 299 of responses to the questioner, the governmental policies have failed to decrease the number of vacant housing units in GCMR. This opinion was observed in highest number of responses as the most negative aspect of the governmental housing policy between 2001 -2013. Based on figure 4, number of vacant housing units have increased from 2.37 million in 1986 to 5.37 in 2006 that reflects the failure of the governmental reformulation of housing rents laws in 1981, and 1996 (table 1). The number of vacant housing units in Cairo governorate jumped from 2.2 million to 3.2 by 43.85 % in 10 years between 1996-2006. In Giza governorate in the western part of GCMR the vacant units increased by 108.9% increasing from 0.67 million to 1.4 million. In Qaliobeya governorate the percentage of increasing was 95.5%.

5.2 Failure of NUC around GCMR to attract residents

Based on our questionnaire survey, 213 of respondents mentioned that the governmental housing regulations failed
to attract residents from existing GCMR urban core to the NUC (Fig.2). Based on figure 5, the gap between affordable housing stock and the real housing units in use is 3.9 folds. In all NUC, there are 0.6 million existing housing units. But only 0.14 million units are in use.

The highest ratio of gap between the number of housing stock and the units already in use was in Sherouq City with only 10% of total housing stock is in use. While the city of "15th of May" 59.06% of the housing stock was in use with less gap ratio that can be considered as the most successful NUC to attract residents. The rest of NUC had similar their ratio of occupation: city of 6th October, 18.2% of units are in use, Alsheikh Zayed City had 23.52% in use, Badr City had 20% in use, 10th of Ramadan City had 37.2%, New Cairo city had 30.6%, and Al obour city had 20.7%.

5.3 Success of Housing Policies to Increase the Public Housing Investments

Table 3 Official Government Investments in Housing Sector 1982-2001 Source: JOPP, 2010

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dwelling Houses Sector</td>
<td>LE million</td>
<td>% of Total</td>
</tr>
<tr>
<td>1306</td>
<td>9.6</td>
<td>2220</td>
</tr>
<tr>
<td>Total Sectors Investments</td>
<td>1306</td>
<td>9.6</td>
</tr>
</tbody>
</table>

Table 4 Housing Units Established by the Governmental Authorities Budgets 1982-2005 Source: CAPMAS, 2006

<table>
<thead>
<tr>
<th>Governmental Authorities</th>
<th>Housing Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ministry of housing construction companies</td>
<td>553,776</td>
</tr>
<tr>
<td>New Urban Community Authority</td>
<td>251,061</td>
</tr>
<tr>
<td>Dwelling houses and Development corporations</td>
<td>43,118</td>
</tr>
<tr>
<td>Joint Projects Agency</td>
<td>17,652</td>
</tr>
<tr>
<td>Dwelling houses and building cooperatives</td>
<td>278,277</td>
</tr>
<tr>
<td>Dwelling houses Finance Fund</td>
<td>22,168</td>
</tr>
<tr>
<td>Dwelling houses and Development Bank</td>
<td>63,674</td>
</tr>
<tr>
<td>Development Agency</td>
<td>28,347</td>
</tr>
<tr>
<td>Total</td>
<td>1,258,073</td>
</tr>
</tbody>
</table>

Based on Table 2, 102 of respondents in GCMR mentioned that the only success of the governmental policies after the 2001 was, increasing the governmental budget allocating for constructing public housing, which is mainly for low and middle class income peoples. Table 5 shows the increase of 5.1% -12.0% in total housing budget allocated by the ministry of housing and utilities between 1986-2001. The allocation of 2,220 million Egyptian pounds which is equal to 450 million US$ was used to build public housing in the existing urban core of GCMR. Based on table 4, the governmental has add 1.25 million housing units between 1982-2005, in which 20% of them in NUC.

6. ANALYSIS AND DISCUSSION

The issue of housing access was visible among young families. New home-seekers of low-class incomes are challenged by two dilemmas; firstly, shortage of rent-controlled living quarters within GCMR’s internal condominiums even though some condominiums indeed not occupied; secondly, they cannot pay for the inflated rates of newly established formal dwelling houses in modern condominiums and towns. As they are eliminated from the formal dwelling house market, there are no alternatives for young peoples, other than houses in the informal sector. Consequently, they settle in informal areas in outskirt of the metropolitan areas.

In spite of the urgent necessity for low-cost dwelling house supplies for peoples those have restricted incomes, the general state policy targeted to establish high class dwelling house building. This dilemma has a strong relation with the cumulative governmental regulations during last 70 years but the aspects of this issue become serious starting 2001 which we are focused on our survey questionnaire. We observed three main effective points of these regulations, which become effective on the GCMR housing market between 2001-2013. And we connect them with the housing laws 1941-2001 to discover the real origins of the housing issues in GCMR recently.

6.1 The Failure of governmental policies to decrease the numbers of vacant housing units in GCMR are related to several cumulative historical reasons:

In 1981 the government clarified the housing Law of 1981 whereby one-third of all housing units within each residential building would be contribute for sale. This law stated that all residential building investors could obtain low interest loans 16). Later dwelling houses law No. 2/1986 gave leaseholders the right to get a new, dissociate tenancy agreement from the proprietor. According to Makary (2002)17), the 1980s building boom represented a contributing role in Cairo’s dwelling houses market’s recession. High returns on capitals from upper-revenue units during the 1980s have catalyzed a surplus of top-end buildings, outputting in a shortage of housing in the lower end of the market. An unwillingness of property proprietors to rent, because of rigorous rent control laws and speculative inclinations, left 50,000 units vacant in Cairo alone16). This effectively restricted the lower to middle-income households from the real estate rental market.

Over the 1980s, the demand for dwelling houses far overridden supply, as government’s own building projects couldn’t sustain with population growth. The today’s relaxed market is related to the decisions of in the early 1990s,
when the government permitted private sector corporations to invest tremendously in the real estate business to fulfill housing demand. The private corporations were particularly served rising mobile population whose housing needs would not be satisfied by state housing and development corporations. This condition drove to high vacancy rates of condominiums over Cairo. In comparing with the 2.4million housing units that are being established between 1981 and 1994, the share of the public sector was indeed restricted to 120,000 units.  

1990s fundamental modification policies and economic reformation at macro level have worsened the housing problem for lower and middle class of the community, as most public housing investment was specified for supplying of housing units which were unaffordable to the larger number of the residents. The sustained grows in land speculation within and around urban centers created increasing prices, leaving low and middle income urban dwellers with no affordable alternative to the informal housing market.

With the fixed low rents problem continued to the next generation of leaseholders. So, proprietors preserved condominiums vacant, or desired high 'key money' payments, which most families could not pay. Finally after the removal of this long-established rent fixing and the 2001 Mortgage law more complex multiple driving forces were observed. Many vacant units were identified in private housing projects with prices affordable to youth in NUC. So, the visible housing shortage and vacancy rates are not only featured to the incompatibility of households and housing units. It is occurring due to the unaffordability of new housing, and inappropriate state housing policies.

6.2 The failure of governmental policies to attract residents to NUC instead of slums around GCMR

We, found This failur is related to a problems of housing policies introduced in1970s, 1980s, and 1990s targeted to help poorer people to obtain housing in NUC. NUC dwelling houses projects and other public housing projects have allocated condominiums to low and middle-income people have worsened the housing issue. Some of these new residents returned to their former internal Cairo condominiums while continue hold of their new houses in NUC. Other families cannot pay for rent or mortgage payments or unhappily with the distance to city center or desert surroundings of the New Urban community and left their assigned dwelling, which then become hard to re-let. NUC specially could not attract residents from Cairo centers. Sub-standard services and shortage of social and educational infrastructure have also frustrated families from living in NUC.

A large ratio of the industrial employees in the NUC of 10th Ramadan has daily travel to work from Cairo, as employers were compelled to establish a bus and mini bus system to pick up employees from Cairo and its outskirts. Residents favored to stay existing core of GCMR rather than move to remote cities. As new town houses proved to be too costly for employees, it finally attracted speculators rather than residents, as in Sheikh Zayed Town. By early 1990s the state had renounced the management of some of these NUC to private sector contractors who established villa complexes, and gated communities. NUC did not attain the self-sufficiency goal of the original scheme according to which the new condominiums would contain 2 million people by year 2020 or 150,000–200,000 people each. To create a more unified urban network, these NUC are integrated in eastern and western development corridors targeting to improve transportation correlations and to attract population growth away from GCMR core.

6.3 The success of the governmental housing policies to meet the housing dilemma in GCMR in attracting more housing investments for low-cost public housing.

The successes of the governmental regulations to increase investments for housing market are not only representing the allocated governmental budget but also the private sector investments. The formulating of The Real estate investments law (148/2001) – better known as the Mortgage the General Authority for Real property Finance (GAREF), was prepared to provide long-term loans for purchasing, building and renewing real property at up to 90% of the price of the housing unit. The new mortgage law resists the widespread pro-renter culture, permitting banks to reclaim real estates and deport proprietors who default. Mortgage loans provide up to 90% of the price of the asset, with monthly pay at nearly 40% of the debtor’s net monthly revenue, with repayment duration from 25 to 30 years. Increase in premiums for real estate is not new in Egypt.

Recently, building contractors in outskirts on the suburbs of eastern Cairo have set offer affordable payment plans, with low interest rates. According to real estate analysts, some 80–90% of new homes today are bought in premiums, as building contractors, assiduous to put on sale vacant units to alternative finance methods. After the Law No148/2001, more than 300 private sector corporations gained rights to build 450,000 units on nearly 30,000 acres of land in NUC around GCMR. Building contractors have given the public the impression of surplus, making banks resistant to finance new projects and leading customers to delay purchasing in the hope that prices will collapse.
7. CONCLUSION

This paper introduced results that are important for urban planners and housing decision makers in GCMR and in developing countries. In order to meet housing demand, they have to prepare an integrated housing plan parallel process to manage both of urban issues and governmental budget. Governmental budget has to focus specific areas such as; supporting amenities, public transportation modes and infrastructure, which can be more effective in meeting the urban housing demand. Working teams of the governmental housing authorities indicated that failure to meet housing issue although the housing budget was increasing throughout the period. The problem in GCMR is not in number of housing units but it is in the failure to serve the requirements of living necessities such as infrastructure, amenities, and public transportation for NUC which had less than 26 % of units are in use.

The failure to encourage the owners of 5.4 million vacant housing units inside the existing urban core of GCMR increased the housing problem. We can say that, GCMR does not have problem in housing units but the problem is in how can we manage the existing housing stock and make them in use. Government needs to allocate its budget to support NUC by life facilities and work chances. On the other hand, The absence of integrated regulations encourages the housing speculation by increasing demand, and the greater accessibility of mortgages. Speculative house building by high and middle class residential condominiums generated in easily noticeable amount of vacant condominiums. We can say that housing market is increasingly supported by property speculation of the middle class. There is a necessity for better regulation furthermore better supplying of housing for poorer families with regulative controls to restrict its filtering to middle-income families and to speculators.

The future researches in this area have to prepare a decision support system that can make the required integration system among financial, technical, political, and consumers in the housing market in GCMR and be connected with fieldwork. To meet the real need of consumers and transfer it directly to political and financial authorities to allocate money based on their real needs not only based on blind numbers of housing demand from technical analysis.

References
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（受理：平成27年6月11日）