ABSTRACT: Egyptian government concerns nowadays with providing affordable housing for low-income individuals to face rapid population growth and avoid building informal housing in urban areas through suggestion new social housing projects which will establishment in new cities. On the other hand there is a decreasing in government funding for housing projects, especially social housing projects, therefore ministry of housing is looking for alternative sources of funding such as public-private partnership approach (PPP) to reduce the government financial allocation for housing projects and get a benefit from Previous successful experiences of private sector in this field. PPP approach is one of housing policies that government released after 1970 for low-income housing which has been applied in new Egyptian cities after 2005 (youth housing projects), where many companies participated with government in housing development during the period from 2005 to 2011. Through this participation, the government allocated land for investors in the new cities such as (Six October, El Obour and Sheikh Zayed ..) cities Within the framework of the National project for Housing (Mubarak Youth Housing Project) to provide housing units with an area (63 m2) beside the Profitable investment projects for private sector. This policy had many pros and cons that must be considered and solved in new projects to achieve the balance between public, private and low-income groups objectives and requirements. Therefore the objective of this paper is to identify the main principles of Public-private partnership approach for providing social housing projects in new Egyptian cities according to a review of previous experiences of other countries, recommendations of International authorities such as (UN- Habitat 2011) and finding challenges of implementing Public-Private Partnerships in new Egyptian cities (Experience of Orascom company for social housing in 6 October city - Haram City). These principles include (selection of suitable ppp type – improving PPP skills - development of legal framework.) that must be applied in new Egyptian cities to produce sustainable social housing.

KEYWORDS: Public private partnership, Affordable social housing, Mubarak Youth Housing Project (National project of housing), Orascom company project (Harm city in October city), social housing.

INTRODUCTION

Public sector is responsible for the delivery of infrastructure, services and housing in most countries for many years through full government funding, beside the role of private sector in doing necessary functions during Project life cycle (constructing, operating and maintaining..). In the recent years the new housing projects faces some challenges such as limited public financial resources and the state's inability to provide these projects on its own. Therefore many developing countries at international and local level focus on finding new alternatives sources
of funding for providing urban elements especially social housing because of the population growth and increasing of housing demand for low-income groups (Pessoa, 2006). Moreover there is a need for improving housing quality and decreasing the cost and the time of low-income housing projects Implementation (Pomeroy, et al., 1998).

Public-private partnership (PPP) is a approach that plays an important role in housing development where government is unable to achieve it autonomously. This approach was discussed by many studies which noted that (PPP) was used in several fields, firstly in infrastructure management and providing social services, then it has been used in housing development to take advantage of its revenues and use private capital instead of state financial resources (Rondinelli, 2003), (Buckley and Kalarickal, 2005).

The Egyptian government has adopted the partnership approach with private sector through the Mubarak Youth Housing Project from 2005 to 2011, but this project faced some challenge such as (ineffective Partnership policies - deficiencies in institutional structure - constrains in Housing finance – Weakness in management framework – High value of imposed taxes- the absence of legislative framework for partnership in housing development..). Therefore this paper aims to formulate the successful partnership principles that must be applied in new social housing projects according to review the previous literature that explain the alternatives polices of funding for social housing development (PPP policy and its principles) which documented by international organizations such as (UN- Habitat , 2011) , in addition to the PPP principles of some successful international experiences in the field of housing development sector such as developed countries like (Australia – USA – Canada – UK), and developing countries like (Malaysia – Indonesia – Thailand ..) . Furthermore identify the challenges which faced the partnership housing projects in new Egyptian cities (Experience of Orascom social housing project in 6 October city) that the government seeks to solve it in new social housing projects.

**Definitions of Public-private partnerships (ppps)**

Public Private Partnership is an organization between public and private sectors to achieve main goals in different fields, especially in urban development. The main goals are providing services, infrastructure, activities and housing which serve population in Sustainably form (Carroll and Steane, 2000). Additionally (PPP) is an arrangement which used as an alternative method for adding new financial resources and reducing the financial burden on the government.

There is another definition refers that (PPP) is a Cooperation between the public and private sectors to provide goods and services by participation with private sector Instead of dependence on the government only (Crown,2000).

It is also defined as a partnership between the private companies and government agency through contract terms which determined by the parties, this partnership is important to complete any project in high efficiency and short time. And the partnership takes many types such as planning, funding, Project execution, operation, maintenance, management and decision making. according to contract type which define the roles of private sector. (Edwards and Shaoul, 2003).

The participation contract ranges from limited role of private sector (PPP) to multiple roles, in the other words the contract reflects the degree of Private Sector Participation (PSP) which reaches to Privatization stage when private sector carries out all the tasks without public sector
and the ownership of a housing, business and services projects transfers from the public sector to the private sector. (Palmer and Glady, 2009).

Advantages of Public Private Partnership in social housing development sector:

The partnership between government and private sector aims to achieve development in the dimensions of (environmental - social - economic – urban) due to inefficient projects when implemented by government or the private sector only. Therefore, governments are seeking to adopt this participatory approach in social housing projects to achieve set of advantages such as shown in the following points and figure (1) (Alexandrou and Colpus.,2001), (Edwards and Shaoul., 2003), (Finlayson, 2002), (Deloitte, 2006):

- Distribute the project risks between more than one participant to reduce the risk and generate additional Returns as a result of the private sector's ability in solving problems easily and efficiently.
- Take advantages of private sector in project management and implementation in short time according Previous successful projects which carried out by private sector.
- Increase competition, efficiency and quality in housing provision as a result of inclusion of new innovations, follow-up of the project and evaluate its performance.
- Reduce the costs of housing delivery to minimum levels during the whole life of a project.
- Apply of new ideas and technologies in design, operation and management.
- PPP approach helps government to save capital investments which used in providing social housing.
- Provide better incentives from that provided by public sector to achieve good management and implement project in best way.
- Use spare capacity and assets to maximize revenues.
- Achieve continuous maintenance for public assets.

Figure (1) the main benefit form using PPP approach in housing development sector

(Source: Author according to the reference of McQuaid, 2000)
Public-private partnership approach (PPP) types:

Previous studies have addressed different types of contracts between the government and private sector in the field of infrastructure development only which can be utilized in other development sectors (World Bank, Private Participation in Infrastructure, 2009). Each type is different from the other according to the kind of project and its characteristics, Furthermore the role of both public and private sectors in Partnership process. It is necessary to select a suitable form of (PPPs) which used in social housing projects to avoid reaching to privatization and disappearance of government control. The following points show the different forms or types of partnership between the public and private sector beside the advantages and disadvantages of each type, and the figure (2) shows the degree of private sector contribution during the partnership approach, also the table (4) shows the main tasks of private sector in each contract type:

The first group (Traditional public-private partnership approach):

This approach called consultative approach that refer to use private sector expertise in the field of designing, construction, operation, management and maintenance through Partnership contracts within the framework of competition. There are three forms of traditional (PPP) as shown in the following table (1) (Pessoa, A, 2006):

Table (1) the types of traditional PPP:

<table>
<thead>
<tr>
<th>Types</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service Contracts: Service Contract is a kind of contracts between government agencies and private companies To take advantage of the private sector in specific technical tasks such as housing Construction and implementation of infrastructure for not exceeding two years. This type of contract had been used many countries such as (Malaysia, India and Chile) to set up housing and do some maintenance operations.</td>
<td>Achieve competition by contracting with more than partner. Involvement private sector in technical aspects to reach the outstanding performance for projects. High quality, low of time Service delivery.</td>
<td>continuation of financing, operation and maintenance by government only. Government face all risks associated with projects. high cost of project as a result of payment the cost of services provided by the private sector.</td>
</tr>
</tbody>
</table>
Management Contracts:
Management contract is a contract between government institutions and private companies to manage the institutions and projects. Therefore there is a transferring of operating task from the government sector to the private sector during the contract period which ranges between three to five years. This type of contract had used many countries such as Lebanon in management, collection and treatment of waste.

- The government uses this type of contract for development of companies or projects through new methods of management which provided by private sector.
- The public sector remains the owner of the project.
- Duplication of management (management of public and private sector).
- The contract does not include private sector participation in project risks.
- The government pays the cost of management services (fees or percentage of project profits) for private sector.

Leasing Contracts:
This type of contracts gives the right of using assets for 10 years in exchange for payment rent. The government remains the owner of assets but the profit transfer to private companies. Leasing contract was used in African countries such as Guinea – Senegal in the field of infrastructure development and urban development to raise operating efficiency only, without need for project expansion.

- Reducing of operating costs that paid by the government.
- Keep of public assets ownership.
- The government get an annual income from leasing and avoid market risk.
- Attract the technical and management skills of private sector and achieve high efficiency for project.
- Lack of incentives for the private sector to raise the value of assets due to public ownership of the assets.

(Source: Pessoa, 2006)

The second group (Contributory partnerships approach):
Contributory partnerships means that private sector is responsible for funding, development and management for projects with public sector. The ownership of Assets transfers to government again. The following table (2) shows the different types Contributory partnerships:

Table (2) the types of contributory partnerships:

<table>
<thead>
<tr>
<th>Types</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concession contracts: This type of contract is used in large projects where the government gives private sector the rights of funding, operation and development. The time period of this contract extends to 30 years To enable the investor to cover</td>
<td>Financing and operation of major projects for long time by investors. Reduce the financial burden in the government.</td>
<td>This approach needs investors those able to deal with large-scale projects.</td>
</tr>
</tbody>
</table>
costs and achieve appropriate profitability. Argentina country used this approach in development of transport and services for long time.

Build, Operate and Transfer contracts (B.O.T or D.B.O.T):
The government gives private sector the right of design, construction, operation and management for projects, furthermore the right of commercial exploitation for several years to recover costs and achieve suitable profit. Then the ownership transfers to government again.

- Transforming the risks of construction, operation and management from public sector to private sector.
- Take advantage of private sector expertise and use the advanced technology.
- This type requires existence of incentives and legislative framework for the participation of private sector.

Build, Own, Operate and Transfer contracts (BOOT or DBOOT):
The government gives private sector the right of building and ownership for other projects to provide financing for required project and achieve an appropriate profit. Then the ownership of only target project transfer to government again after the end of contract period.

- Transforming the risks of building, operation, management, investment and financing to private sector instead of the public sector.
- There is no control or management from the government on projects during the period of Operation and Maintenance.

The third group (the private sector ownership approach):

These contracts illustrate the existence of full ownership assets of the private sectors through purchase existing project or lands and carry out all tasks for project implementation. The following table (3) shows the different types of private sector ownership:

Table (3) the types of private sector ownership approach:

<table>
<thead>
<tr>
<th>Types</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Build, Own, Operate contracts (BOO):</td>
<td>- Transforming the all risks of building, operation, management, investment and financing to private sector instead of the public sector.</td>
<td>- There is no control from the government on projects which lead to the possibility of change in projects properties according to the needs of the private sector.</td>
</tr>
<tr>
<td>Sale contracts or Privatisation:</td>
<td>- private sector bears all project risks and owns</td>
<td>- There is no role of government in</td>
</tr>
</tbody>
</table>
Sales contract means that the government sells the existing projects through different forms such as (the direct sale of public assets - sale of stocks in financial markets – sale to employees).

(source: Calabrese, Daniele., 2008)

<table>
<thead>
<tr>
<th>Type of PPP</th>
<th>Ownership of assets</th>
<th>Operation of project</th>
<th>Funding for the project</th>
<th>Management and control</th>
<th>Bearing the risks of project</th>
<th>period of partnership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Service contracts</td>
<td>Public</td>
<td>Public &amp; private</td>
<td>Public</td>
<td>Public</td>
<td>Public</td>
<td>1-2 year</td>
</tr>
<tr>
<td>Management contracts</td>
<td>Public</td>
<td>Public &amp; private</td>
<td>Public</td>
<td>Public &amp; private</td>
<td>Public</td>
<td>3-5 years</td>
</tr>
<tr>
<td>Leasing contracts</td>
<td>Public</td>
<td>private</td>
<td>Public</td>
<td>Public &amp; private</td>
<td>Public &amp; private</td>
<td>5-10 years</td>
</tr>
<tr>
<td>Concession contracts:</td>
<td>Public</td>
<td>private</td>
<td>private</td>
<td>Private</td>
<td>Private</td>
<td>15 – 30 years</td>
</tr>
<tr>
<td>Build, operate, transfer</td>
<td>Public</td>
<td>Private</td>
<td>Public &amp; private</td>
<td>Public &amp; private</td>
<td>Public &amp; private</td>
<td>&gt; 10 years</td>
</tr>
<tr>
<td>contracts</td>
<td>Public &amp; private</td>
<td>Private</td>
<td>private</td>
<td>Private</td>
<td>Private</td>
<td></td>
</tr>
<tr>
<td>Build, own, operate,</td>
<td>Public &amp; private</td>
<td>Private</td>
<td>private</td>
<td>Public &amp; private</td>
<td>Private</td>
<td>&gt;10 years</td>
</tr>
<tr>
<td>transfer contracts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Build, own, operate,</td>
<td>private</td>
<td>private</td>
<td>Public &amp; private</td>
<td>private</td>
<td>private</td>
<td></td>
</tr>
<tr>
<td>privatization</td>
<td>Private</td>
<td>private</td>
<td>private</td>
<td>private</td>
<td>private</td>
<td></td>
</tr>
</tbody>
</table>

(Source: Author)
The main principles of Successful Public-private partnership for social housing projects:

International experiences of some countries like (Canada, Australia, Kolkata, USA, UK, Malaysia, Indonesia and Thailand) use principles to achieve successful partnership with the private sector in many fields (Adusumilli, 1999), (Boase and Joan Price., 2000), (Brown, et al., 2006), (The Canadian Council for Public-Private Partnerships, 2003), (Susilawati and Armitage, 2004), (Sengupta, 2006), (Claggett, et al 1994), (Choe, 2002) These principles are consistent with what is raised by the United Nations 2011 for development social housing projects (UN-Habitat, 2011) Which cover five main stages as shown in the following points and figure (3):

Principles of partnership in preliminary stage (Prepare for the application of the partnership with the private sector):

There are many important elements that must be considered before thinking in partnership with the private sector as shown in the following points (World Bank, Attracting Investors to African Public-Private Partnerships, 2009).

Defining project objectives and the requirements of each partner to create balance between all requirements and encouraging the partnership. The private sector requirements are (appropriate level of profitability – rewards - Legal and regulatory framework - suitable environment for investment - Political Support), While the requirements of government are (funding - project implementation - raise the efficiency of the service).

Existence of political support and clear national and local legal and regulatory structures for partnership system which define some important element such as (Payne, 1999):

- Legislation allow private sector participation in housing projects through suitable contracts.
- Providing the necessary guarantees and incentives To encourage the private sector for participation.
- Determination the roles of government and private sector.
- Obligations of government towards providing land and infrastructure for housing projects.
- Facilitate the licensing and administrative procedures.
- Existence of trained administrative institutions to deal efficiently with Partnership systems.
- Availability of legislation that organize the operation of borrowing.
- Existence of control, monitoring and evaluation tools To develop partnership Systems.
- Taxation framework.

The Compatibility between the kind of proposed projects and the strategies of international donors which help in getting loans and grants from the international financial institutions (IFI) as well as commercial banks to provide funding and transfer successful previous experiences for new projects, these financial institutions requires (the technical experience...
of private sector in housing development - government's commitment towards oversee, implementation supervision and follow-up the project).

**The approval of PPP unit** for Participatory project after ensuring that the project is sustainable and take the standard of partnership in consider, in addition to achieve high returns.

**The private sector's interest** in participating to achieve an adequate return Through incentives provided by the government.

**Principles in the stage of selection suitable type of partnership:**

Selection type of partnership Influenced by set of criteria including the following points (Carroll and Steane, 2000):

- The objectives each partner (state – private sector).
- Type of project and its goals: selection of an appropriate project for the participation is subjected to some criteria like previous experience of the private sector in Similar projects, the priority of the project to meet the needs of the population, high cost of project and less financial ability of the government.
- The advantages and disadvantages of each type of partnership.
- Determine the kind of risks such as (change in costs value – reducing in demand of services projects - delay in project implementation time - Natural hazards – technological risks - non-compliance with the laws and requirements). Furthermore identification who bears the risks which facing the projects (Miles, et al., 2000).
- Type of required tasks from private sector such as (project design – construction – financing – operation – maintenance – marketing – risk management).
- Available allocated budget for project (salaries of employees – cost of utilities –cost of building materials...) and the amount of required saving to cover other projects.

**Principles in the stage of project launch and selection of partners:**

This stage includes a set of important element such as (Cuorato, 2002):

- Identification of Project needs such as technical needs (innovative design – technical standard – management, follow-up and maintenance), in addition to Financial needs (Finance – expected risks like planning risks, construction risks, financial risks, demand risks and legislative risks – returns for partner and society).
- The announcement of tender for the project.
- Discuss and evaluate offers from the private sector.
- Selection the right partner for project: the government select the right partner according to the optimal price which Posed by the private sector for the housing unit which must be less than the housing price when the government implements the same project, in addition to private sector contribution in reducing total costs during the life cycle of the project.
The agreement of Authorities and funders.

**Principles in the stage of contract design**

The contract includes some items that shown in the following points (Finlayson and Jock 2002):

- Identification the roles of each partner.
- the required specifications
- Period of contract.
- Bearing the risks.

**Principles in the stage of project implementation and evaluation**

This stage aims to verify from the achievement of contract items, roles of each partner, project objectives and its return through the following points (Samii et al., 2002):

Contract management: Achieve the role of each partner as described in the contract.


![Figure (3) main principles of Successful Public-private partnership for social housing projects](Source: Author)

**Public-private partnership approach and social housing projects in new Egyptian cities:**

**The history of private sectors participation in social housing projects:**

The Egyptian government was responsible for housing sector during the time period from 1961 to 1973 to establishment the housing units for low-income people with lowest possible price
without no participation of the private sectors in low-income housing projects due to low profitability for them. (UN-Habitat, 1993), (Buckley and Kalarickal, J., 2005).

After 1973, State adopted the new cities policy which had appeared with the supporting of the government to cover housing demand through building new housing units for all groups, especially for low-income people, and the private sector has contributed in design and implementation housing projects until the year of 2005. In spite of the provision of many low-income housing projects during this period, these projects faced set of constraints including (high cost – long time of implementation – lack of maintenance and financing – low quality of housing products lack of adequate housing units with the people needs)( World Bank and USAID/TAPRII, 2007). Therefore the state tended to seek for alternatives of financing and solving other problems of previous housing projects by offering Mubarak's National Project for Housing to establish 500,000 social housing units in all new cities during six years (from 2005 until 2011) through seven types of projects as shown in the following points and table (5) (Ministry of Housing, 2005).

**The first type**: Provision of titling system for housing units with an area (63 m²).

**The second type**: land granting for low-income people to build their housing themselves (Ebny Betak project) with an area (150 m²).

**The third type**: land sale for investors to build housing units with an area of 63m².

**The fourth type**: Bet al aliyah project and provision of titling system for housing units with an area (63 m²).

**The fifth type**: Awla bel-re'aya” project with an area (42 m²) for housing unit.

**The sixth type**: providing rental system for housing units with an area (63 m²).

**The seventh type**: providing titling system in desert with an area (63 m²) for rural housing unit.

### Table (5) participation of all types of Mubarak's National projects in providing housing units

<table>
<thead>
<tr>
<th>The ratio from total units</th>
<th>Proposed housing units</th>
<th>Project type</th>
</tr>
</thead>
<tbody>
<tr>
<td>53.7%</td>
<td>327141</td>
<td>First type</td>
</tr>
<tr>
<td>15.4%</td>
<td>93756</td>
<td>Second type</td>
</tr>
<tr>
<td>14%</td>
<td>85050</td>
<td>Third type</td>
</tr>
<tr>
<td>0.5%</td>
<td>3020</td>
<td>Fourth type</td>
</tr>
<tr>
<td>4.7%</td>
<td>28294</td>
<td>Fifth type</td>
</tr>
<tr>
<td>6.2%</td>
<td>37807</td>
<td>Sixth type</td>
</tr>
<tr>
<td>2.4%</td>
<td>14563</td>
<td>seventh type</td>
</tr>
<tr>
<td>100</td>
<td>608087</td>
<td>Total</td>
</tr>
</tbody>
</table>

(Source: Ministry of Housing, 2005)

Participation with the private sector (the third type of projects) has contributed in increasing the production of housing units (85050 housing unit) about 14% of the total proposed housing units in Mubarak housing project through a partnership program with government (new urban
communities). The government provide land with basic infrastructure to companies which have financial and technical ability in housing development field to build low-income housing units (63m2) on the half of area with price 70 pounds per meter according technical standards and building permits. While the rest of area is allocated to the levels of middle and high housing units with an area (100 – 120 m2). There are incentives provided by the state to the private sector such as facilities in payment through annual instalments for 10 years with the 10% advanced payment and grace period for 3 years. (Ministry of Finance website. http://www.mof.gov.eg/english/Pages/Home.aspx, (The National Program for Public Private Partnership, 2007). The thinking of social housing projects has appeared since 2011 instead of the term of low-income housing, but the implementation of these projects started only in 2014 due to the instability of the political situation and the lack of appropriate funding, therefore the government tried to find other mechanisms of financing like tahya misr fund which supported by the citizens, banks and some companies, in addition to the involvement of the private sector companies again in housing development projects for financing, construction, operation and management.

In 2016 the council of ministers issued a decree (8/2016) to regulate the partnership process, this decree refers to allocate 100 acres (maximum area) for private sector to establish investment projects in exchange for social housing implementation on 30% of total within two years from the date of the contract with government and banks like (national bank – misr bank – cairo bank – housing and construction bank) offer loans to complete project on time. The social housing project ownership remains for state and private sector has a margin of profit no more than 15% from total profit (Social housing report, 2016, website: www.invest-gate.me).

The following figure (4) shows the history of private sectors participation in social housing projects:

![Figure 4: History of Private Sectors Participation in Social Housing Projects](image)

**Figure (4) the history of private sectors participation in social housing projects**

(Source: Author)

**The legislative framework of PPP in Egypt:**

The Egyptian government has developed a set of laws that appeared since 1947 to deal with the partnership between the state and the private sector. Each law discusses specific field of
partnership such as (law No. 129 for 1947 to provide public utilities – Law No. 61 for 1958 to organize the investment in public utilities - Public Tenders Law no. 89 for 1998 to grant concessions of public utilities - Law No. 67 for 2010 Which regulates the partnership in the field of infrastructure, services and public utilities), In addition to some laws for specific projects such as (Law No. 100 for 1996 to electricity field – Law No. 229 for 1996 to public roads – Law No. 3 for 1997 to airports development – Law No. 22 for 1998 to ports development – Law No. 19 for 1998 for communication field) (The National Program for Public Private Partnership, 2007).

Those laws put regulations and contracts that define the functions of both the state and the private sector in the development of field, In spite of the multiplicity of laws, but it did not address to the field of housing development, Therefore it requires to take advantage of proposed regulations for other fields to support housing sector which shown in the following points:

Types of (PPP) approach in Egyptian projects:

The types of Partnership between the Egyptian government and private sector are divided into three types, each type included some Contracts which appropriated for specific projects as shown in the following table (6) (The National Program for Public Private Partnership, 2007):

Table (5) the current types of (PPP) in housing development projects:

<table>
<thead>
<tr>
<th>Main type of partnership</th>
<th>Type of contracts</th>
<th>Type of project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Providing some function by private sector and government owns the assets.</td>
<td>▪ Service contracts ▪ Management contracts</td>
<td>Service and housing projects</td>
</tr>
<tr>
<td></td>
<td></td>
<td>public utilities projects</td>
</tr>
<tr>
<td>Providing finance and function by private sector and government owns the assets.</td>
<td>▪ Lease contracts ▪ Build , operate , transfer ▪ Build, own, operate and transfer of ownership</td>
<td>Infrastructure projects in new cities</td>
</tr>
<tr>
<td>Providing finance and function by private sector and the private sector owns the assets</td>
<td>▪ Build, own and operate ▪ Privatisation</td>
<td>Other projects except for public services</td>
</tr>
</tbody>
</table>

(Source: The National Program for Public Private Partnership, 2007)

Stages of (PPP) approach application in Egyptian housing projects:

Partnership projects in Egypt take some steps from identifying the project to signing the contracts with private sector and implementation the project as shown in figure (5), during those steps there are multiple agencies have specific responsibilities that participate with each other to ensure successful partnership system. PPP central unit is the main governmental institution which is responsible for organizing the partnership process through departments of tendering, contracts and financing for all sectors except housing sector. The main tasks of PPPCU are (The National Program for Public Private Partnership, 2007):

▪ Providing incentives to encourage investors for participation with the state in development projects.
- Put the institutional, legal and procedural facilities to support the project life cycle.
- Develop models and standards of Partnership which must be applied on projects.
- Rehabilitation of the government sector to prepare appropriate bids and contracts.
- Support the public sector for selection efficient partner.
- Ensure that the standards and rules of a successful partnership are applied in the projects.
- Ensure that government supports private sector through all stages of project.
- Evaluation and follow-up the performance of the partnership projects.
- Providing financial, legislative and technical support for Partnership system.

**Figure (5) the regulatory framework of (PPP) approach in Egyptian housing projects**

(Source: Author)

**Experience of partnership in new Egyptian social housing projects (case study of Oracom housing project in six October – haram city):**

The private sector participate with government to carry out number of low-income housing projects in new Egyptian cities such as (six October – Sheikh Zayed - tenth of Ramadan - El Shorouk - El Obour -Borg El Arab- Al sadat –New Mania – New Sohag – new Assiut – New Beni Suef – New Qena). The implemented projects around greater cairo are (Al Salmiya and...

The Orascom company low income housing project is the first project of Partnership for housing in new cities which implemented in 2006 by Orascom housing communities (OHC). Orascom hotels and development (OHD) established this new company (OHC) to participate in providing low income housing through National Housing Program (NHP). The government allocated about 8.5 million m2 (1904 cares) for orascom company in six October (20 km west of Cairo) as shown in figure (6) to build from 50 to 70 thousand housing units for low and medium income within 6 years. The oracom low income housing is the first stage of project which called haram city on about 450 acres and the remaining area for harm life medium housing project (Orascom Housing Communities 2011).

Figure (6) location of Orascom low income housing project in six October


The project of haram city has followed some of successful principles of partnership as well as it faced some of failures and challenges which need to be addressed in new social housing projects, the following table no (6) shows theses principles and challenges during all stages of project (Orascom Development, 2009), (Orascom Housing Communities, 2011) and (Ministry of Housing, 2009), (Daily News., July 7, 2008):
Table (6) the successful principles and main challenges of partnership process in haram project:

<table>
<thead>
<tr>
<th>Main challenges</th>
<th>successful principles of partnership</th>
<th>Project stages</th>
</tr>
</thead>
<tbody>
<tr>
<td>- The government gave the company 2000 acres which are exceeding the ability of company to implement all proposed housing units.</td>
<td>- Choosing a project location close to main roads and industrial area for attraction low income workers to live in haram city.</td>
<td>The stage of project preparation</td>
</tr>
<tr>
<td>- Allocation 50% of the total area for building low-income housing, this affects on profitability for company.</td>
<td>- The company purchase the land without facilities or infrastructure at a price of 10.7 pounds per meter² instead of buying land with infrastructure at price of 70 pounds per meters to reduce cost and give the opportunity for company to provide infrastructure in stages according to needs.</td>
<td></td>
</tr>
<tr>
<td>- Following the B.O.T system in project which allows the company to build and operate for limited time less than required time for achievement profit.</td>
<td>- The company builds the housing units in stages according to population demand and starts with small plots of land to build units less than 63 m².</td>
<td>The stage of project Financing and implementation</td>
</tr>
<tr>
<td>- The period of time specified by government for project completion (two years) is not commensurate with the available funding systems.</td>
<td>- Use instalments which paid by buyers of housing units and services fees as one of basic financing source for construction and operations the project to avoid high interest loans.</td>
<td></td>
</tr>
<tr>
<td>- Existence Problems in building systems due to use cheap materials which are not resistant to natural factors.</td>
<td>- Diversity in residential units to cover various types of demand and achieve suitable profitability for the company as shown in figr (7)</td>
<td></td>
</tr>
<tr>
<td>- The company delayed in project implementation.</td>
<td>- Providing services and economic activities through other parties to reduce the financial burden and achieve profit.</td>
<td></td>
</tr>
<tr>
<td>- Construction of some housing units without the permission (3886 unit ) from authorities due to the long time required to obtain it.</td>
<td>- Use low cost construction system to achieve an appropriate profit as sown in figr (8)</td>
<td></td>
</tr>
<tr>
<td>- Sell the land of workshops to others for getting financial resources.</td>
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</tbody>
</table>
The lower margin profit from building low-income housing Comparing to the profitability of housing projects for medium and high income.

The established housing units were not sold at the specified time, this lead to reduce the financial liquidity which necessary to complete the rest of housing units in the project.

Citizens paid monthly instalment with value exceeding the permitted rate (25% of income value). Which leading to problem in getting the unit.

The authority of urban communities withdrew the allocated land of company as result of its failure in build all proposed housing units without giving it time to complete the project.

High price of housing unit (122 thousand pounds) despite of low price of land and building materials.

Use banks to support citizens for paying the price of housing through monthly instalments over 20 years.

The government supports each housing units with 10,000 pounds (non-refundable).

the company plans to rent some housing units for one year and two years to save additional financial resources until selling theses units.

Providing affordable systems to citizen for paying the price of housing units through contracting with banks.

The company manages all components of the project to achieve sustainability.

<table>
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<th>The lower margin profit from building low-income housing</th>
<th>Use banks to support citizens for paying the price of housing through monthly instalments over 20 years.</th>
<th>The stage of follow up and sale of project units</th>
</tr>
</thead>
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(Source: (Author according the references of Orascom Development, 2009, Orascom Housing Communities, 2011, (Ministry of Housing, 2009) and (Daily News, July 7, 2008))

**Figure (7) different type and areas of housing units in orascom low-income housing**

RESULTS AND RECOMMENDATIONS

This paper discusses one of important issues in social housing development sector which is the partnership approach between the governments and the private sector. This approach was adopted by many countries to find new sources of finance instead of depending on budget of government. Therefore the paper aimed to identify the main principles of successful partnership approach in providing social housing to achieve the requirements of the private sector, government and population. These principles have been developed according to recommendations of international experiences, United Nations report in 2011 and the partnership system challenges in one of low income housing projects (experience of orascom housing) to put Integrated principles that assure the pros and solve negatives during the project stages as shown in the following points:

- The principles in the stage of pre-thinking for partnership, including: (determining the project's need for partnership – ensure for the existence of a legal and regulatory framework that support the partnership - determining the key roles of the partners - There are incentives for the private sector to increase its desire to participate in the housing sector- existence of Partnership unit to follow-up and evaluate the performance).

- The principles in the stage of selecting the type of partnership according to (identification the objectives of project and its needs - the characteristics and disadvantages of each type - the required role of each partner - the expected risks - the specific budget for the project).

- The principles in the stage of project starting and choosing of partner, including: ( put the terms of partnership according project needs - introducing the tender of the project – receiving proposals from private sector – evaluation and differentiation between applicants – selection of experienced partners).

- The principles in the stage of signing contracts, including (put the basic terms of the contract - determining the roles of partners - the time period of the contract - the risks and who bears them).
The Principles in the stage of monitoring and evaluation which including: determination the achievement of objectives for each partnership and project - the existence of state control on prices and the time of units delivery – monitoring the project efficiency and the availability of funding systems).

This study recommends the implementation of previous principles in new social housing projects which proposed by the government and the paper puts a set of additional principles to solve the problems that faced the partnership approach in Egypt, especially in low-income housing projects such as National Housing Project during the period from 2006 to 2011 Which was revealed by the study of orascom housing project (haram City) in October 6, these additional principles are:

- Insert the partnership projects within the strategic plan of each ministry.
- Activation the role of PPP central unit to play its roles in supervising and putting the necessary principles for successful partnership.
- Adding the responsible administration for housing sector within the administrative structure of PPP central unit.
- Providing the legislative framework to organize the partnership process in social housing sector.
- Stimulating the local banking sector to finance the partnership projects for a longer time period and provide facilitates for citizens to purchases their units.
- Allocation the area of land in compatible way with the size of companies and its ability in implementation the project in specified time.
- Reducing the percentage of allocated area for social housing from the total allocated area for private sector to be less than 50% for achieve greater profitability.
- Increasing the time limit for the private sector (to be more than two years) to give him the opportunity for completing the project in efficiently and commensurate way with available financial resources.
- Accelerate the time period for construction operations licensing to reduce the required time of project implementation.
- Contribution of the government in housing units construction, follow-up the project implementation and marketing the housing units.
- Using another type of partnership between government and private sector such as (B.O.O.T) to achieve appropriate profitability instead of B.O.T type.

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