

## **Land Allocation Policies of National Housing Programs and Projects: Proposals and Implementation Mechanisms for Housing Lands in New Cities in Egypt**



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<https://doi.org/10.18280/ijstdp.170119>

### **ABSTRACT**

**Received:** 6 November 2021

**Accepted:** 7 January 2022

#### **Keywords:**

*housing policies, housing programs, lands, land allocation, land policies, mechanisms*

Egypt has been suffering from a significant housing problem of unbalanced housing provision for all segments of society. During the past decades, the state addressed this problem through successive land allocation and housing policies. However, those efforts were insufficient to resolve the issue, and there is still a gap between the demand and supply of adequate housing types for low-income groups. This paper, aims to come up with proposals Mechanisms for housing and land allocation policies in Egypt. The methodology of this research is based on monitoring and analyzing the development of land allocation and housing policies and programs from 1952 to 2020 to identify deficiencies in the different implementation mechanisms and their effectiveness. Also, three successful international experiences (Singapore, Australia and Morocco) representing various of housing land allocation policies are examined to identify essential lessons applicable in the Egyptian context. From the results of this analysis, and the outcome of structured interviews with Egyptian stakeholders in Housing field comprising housing academia and housing experts and planners. The paper finally proposes several institutional, legislative, planning, financial administrative and informational mechanisms to fulfill the land allocation policies and link them to the policies and programs of the national housing plans in Egypt.

## **1. INTRODUCTION**

Several studies, including the New Urban Agenda in 2016 and the Global Sustainable Development Goals 2030, in addition to the Global Housing Strategy for 2013, have addressed the role of the housing sector in keeping pace with rapid urbanization, enabling social justice, and encouraging national and local housing policies to provide the right to adequate housing for all [1]. These studies also included, that the development of a general policy for the land allocated and suitable for construction, especially owned by the state, through a long and short-term national plan that is linked to the objectives and strategies of the housing sector, taking into account the problems and needs, and therefore the implementation of this policy depends on the provision or availability of land. Implementation of these policies is based on the provision of serviced land in adequate locations within city plans at prices and acquisition methods that are suitable for different needs.

In Egypt, housing policies from 1952 to 2020 did not solve the housing problem, which is manifested not only as a housing gap, but also as poor distribution of housing units among different social groups in favor of higher income groups [2].

This paper aims at introducing proposals Mechanisms for housing and land allocation policies in Egypt. This is attained by reviewing and analyzing the development of land allocation and housing policies and programs during two periods (1952-2012), and after the 2011 revolution (2012-2020), to identify deficiencies in the Mechanisms affecting the formulation and

effectiveness of these policies. It also studies three successful international experiences (Singapore, Australia and Morocco) that represent diverse patterns of housing land allocation policies in order to identify important lessons that are applicable in the Egyptian context. In addition, structured interviews were conducted with Egyptian experts and planners comprising academia and officials in housing authorities (New Urban Communities Authority - Ministry of Housing - Private Companies for Real Estate Development and Investment) to explore their opinion in the outcomes of the previous section. Interviewees were asked to classify and evaluate the proposed and extracted mechanisms from international and Arab case studies that can be compatible with and applicable for the Egyptian context. It finally proposes several institutional, legislative, planning, financial administrative and informational mechanisms to fulfill the land allocation policies and link them to the policies and programs of the national housing plans in Egypt.

## **2. METHODOLOGY**

The methodology of this research is based on different methods were used, including Analysis of historical documents, Case study and Structured interviews. Hence, the methodological framework is divided into three sections. The first section deals with the literature review Land Policies, land allocation for Housing, patterns and implementation mechanisms. The study then monitors and analyzes evolution of land allocation and housing policies, and programs in Egypt

in the periods (1952-2012) and (2012-2020). The second section reviews case studies of international and Arab experiences of land allocation policies, linking them to housing policies and programs for various housing categories, as well as effective policies to deal with the housing and land problem, and the mechanisms for its implementation. The third section includes a comparison and analysis of the Egyptian experience through analyzing land allocation policies, policies implications in addition to its implementation mechanisms in the selected case studies, besides the proposed suggestion of housing experts' interviewees to propose implementation mechanisms for effective policies that connect land allocation policies with national housing policies and programs in Egypt.

The methodology of this research is based on different methods were used, including analysis of historical documents, Case study and Structured interviews as shown in Figure 1.

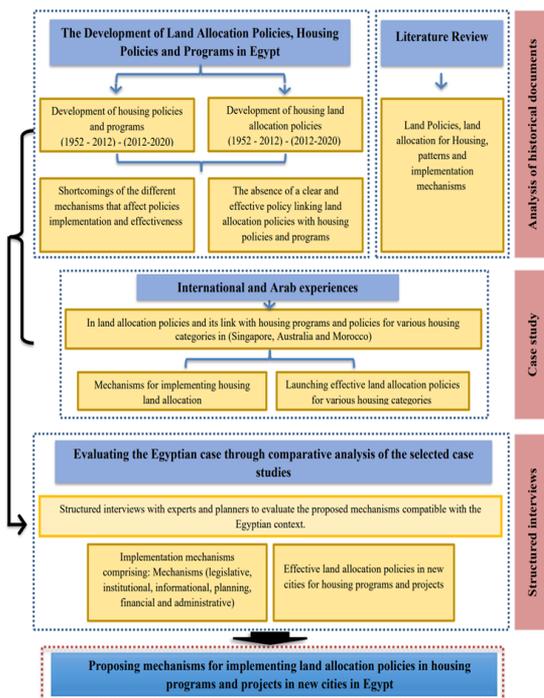


Figure 1. Research methodology and methods

### 3. LITERATURE REVIEW

Land policies are defined as “The policies pursued by governments to achieve a balance between the ultimate use of land, and preserving it as a non-renewable resource to achieve sustainable development” [3]. They involve social, economic, environmental, and legislative aspects. Consequently, public policies towards urban lands affect the land market and, the supply and allocation of these lands in various ways, especially housing lands [4].

Land policies can be represented in many axes (security of tenure, land reconfiguration, planning of land use, tax systems on land, loan and financing systems, management of land markets and prices and providing lands with services and utility networks) [3].

Several studies, show that despite the diversity of housing land allocation policies in each country (Land acquisition policy, Inclusionary zoning policy, Land adjustment policy) and whether the policy was from a government that owns the

lands (Central government system) or from an independent local authorities or states that owns the land (Federal structure system) and the difference of economic system of each country; each policy contributed to solving the housing problem in each country.

The importance of land comes from being a necessity for providing new housing thus, it is essential to find methods to provide more land for development to produce additional housing. Understanding the different ways in which lands can be provided for construction is important as it will determine both of housing supply and housing affordability. This can be achieved by understanding the relationship between the land allocation system and the housing development process [5].

Adopted policies in each country for lands allocation for housing have applied various mechanisms to implement these policies and achieve its goals. Many developing countries have established semi-governmental organizations to develop lands; these organizations were created to achieve several goals including directing affordable land and housing for low- and middle-income families [6]. Private sector participation is one of these mechanisms that helped providing affordable housing for middle and low-income families with high efficiency in less time through government incentives including legislative, regulatory and administrative mechanisms [7]. In addition, some countries such as the United States, France, China, and Korea have adopted new incentives to attract private sector' participation in the low-income housing sector development, as these incentives mainly depend on how to effectively use project land through controlling land use, density and diversity, to cover costs and achieve profits for each of state, residents and investors without increasing the financial burden on the government or reducing the efficiency of residential areas [8].

## 4. DEVELOPMENT OF LAND ALLOCATION POLICIES, HOUSING POLICIES AND PROGRAMS IN EGYPT

This section analyses land allocation policies in Egypt during the period (1952-2020), and links them to the varied successive housing policies. As the 2011 revolution resulted in significant variations in political, economic and social conditions, this period was divided into two phases; the first (1952-2012), and the second (2012-2020).

### 4.1 Development of land allocation and housing policies and programs (1952-2012)

Land allocation and housing policies and related institutional, legislative, legal, and planning mechanisms during this period can be classified into four phases, illustrated in Figure 2.

#### 4.1.1 The fifties (1952–1962)

Housing policies focused on public housing and industrial housing for laborers. The state adopted the construction of low-income housing through the Construction and participation of Public Housing Corporation, there was a link between land allocation policies and housing demand through launching housing projects.

Land allocation policies were influenced by the socialist government's aim of fulfilling housing demand of lower income groups and laborers, and hence land allocation relied on public property lands in several areas [2]. Also, lands have

been allocated to integrated residential cities attached to the major industrial centers [2].

#### 4.1.2 The sixties and seventies (1962-1982)

During this period the responsibility for building economic housing was transferred to the governorates though local councils. Hence, land allocation was to build economic housing projects for poor families, and industrial laborers and employees.

During the pre-war period (1967-1973), there was a drawback in the state's involvement in housing projects, and hence there wasn't a clear housing land allocation policy which resulted in a housing problem and the emergence slum areas.

After the 1973 war, an economic openness and capitalism policy. Hence, the state's concern shifted towards upper middle-income housing, and cooperative housing emerged and flourished. The state provided them with serviced lands at low prices in major cities for middle and upper middle-income housing.

#### 4.1.3 The eighties and nineties period (1982-2002)

During the 1980's, Land allocation policies and the demand for housing were linked through low-income housing projects

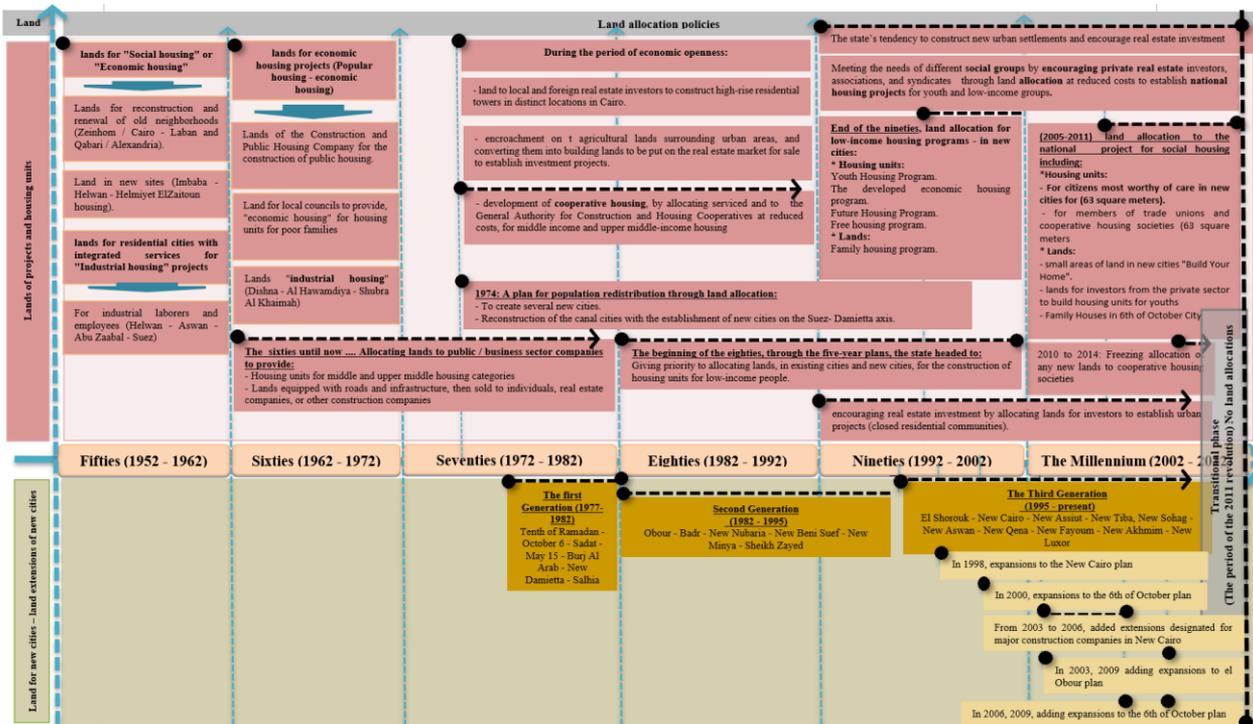
in the five-year plans with participation of the private sector. It offered lands to private investors, while lands designated for governmental low-income housing and individuals decreased.

In The late 1990's, lands were allocated to establish national housing projects for youths and low-income people in new cities. Lands have been allocated to the New Urban Communities Authority to establish several new cities where focus was on middle and upper middle housing. The construction of luxury housing was also encouraged in new cities, where large areas of land were offered to investors, associations, unions, and individuals, at limited prices.

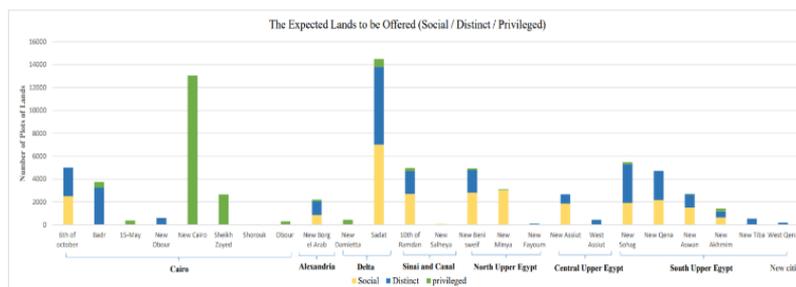
#### 4.1.4 The millennium period (2002-2012)

This period is characterized by a shift towards economic reform policy and free market mechanisms. the state launched the National Housing Program to address the problem of increasing housing prices by providing 500,000 units over six years (2005-2011) [9].

As for land allocation policies, the state encouraged new cities and real estate investment by allocating lands for national housing projects, investment lands for the establishment of integrated urban projects, and lands for expansions of new cities, as shown in Figure 2.



**Figure 2.** The evolution of the policies for allocating land for housing in Egypt from 1952 to 2012 (Source: Researcher according the references [2, 10-16])



**Figure 3.** Spatial and qualitative distribution of lands expected to be offered for housing in new cities in Egypt (Source: Researcher according the reference [17])

## 4.2 Land allocation and housing policies and programs (2012-2020)

As for land allocation policies, the government targets an 11% increase in the inhabited land by 2030 [17]. As shown in Figure 5, it offered large lands for several programs for all economic groups, to fill the accumulated housing gap including:

(1) Lands for National Social Housing Projects (1 million units). According to the medium-term plan for sustainable development 2021/2022, Figure 3 [17] shows the expected availability of housing lands in new cities.

(2) Investment lands to establish integrated urban projects in new cities to attract real estate investment, especially fourth-generation cities [18]. Figure 4 shows the reflection of adopted policies on the supply of land (National and investment projects) in new cities and the increase in lands and housing units offered for the middle- and high-income groups.

(3) Land for a new generation of new cities (fourth generation cities). During this phase, several laws were issued to contribute to achieving these policies including Social Housing, Mortgage Support, and Investment laws.

Tracking the different periods from 1952 to 2020, it can be concluded that there has always been an imbalance in the housing system and between supply and demand through housing categories. The main reasons for this deficiency are:

(1) The non-clear legal legislative framework related to housing, lands and their management due to the large number of laws and their amendments, and the excess and lack of connection between state decisions, which led to ambiguity of methods of acquiring and allocating lands.

(2) Shortcomings in the institutional mechanisms comprising the multiplicity of mandates for entities that own, use and dispose state lands according to their locations, which

leads to multiplicity of laws and internal regulations governing land management and use, and consequently to variations in housing pricing controls and mechanisms. The nonexistence of a single entity specialized in evaluating and pricing lands, and of pricing criteria led to exaggerated land prices. Also, the lack of incentives for private investors, the weakness of mortgage mechanisms, and the failure to provide land at reasonable prices and easy and transparent procedures, led to the reluctance of private developers to build for low-income group.

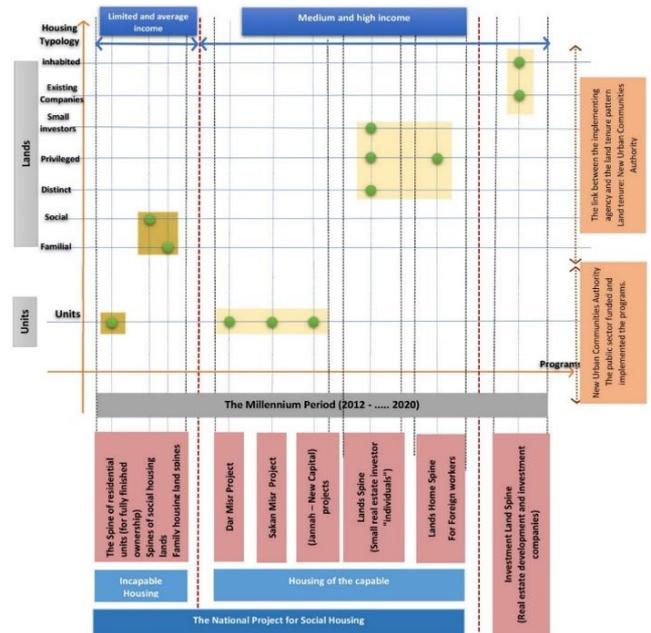


Figure 4. The offered lands (national and investment projects) for housing categories in new cities

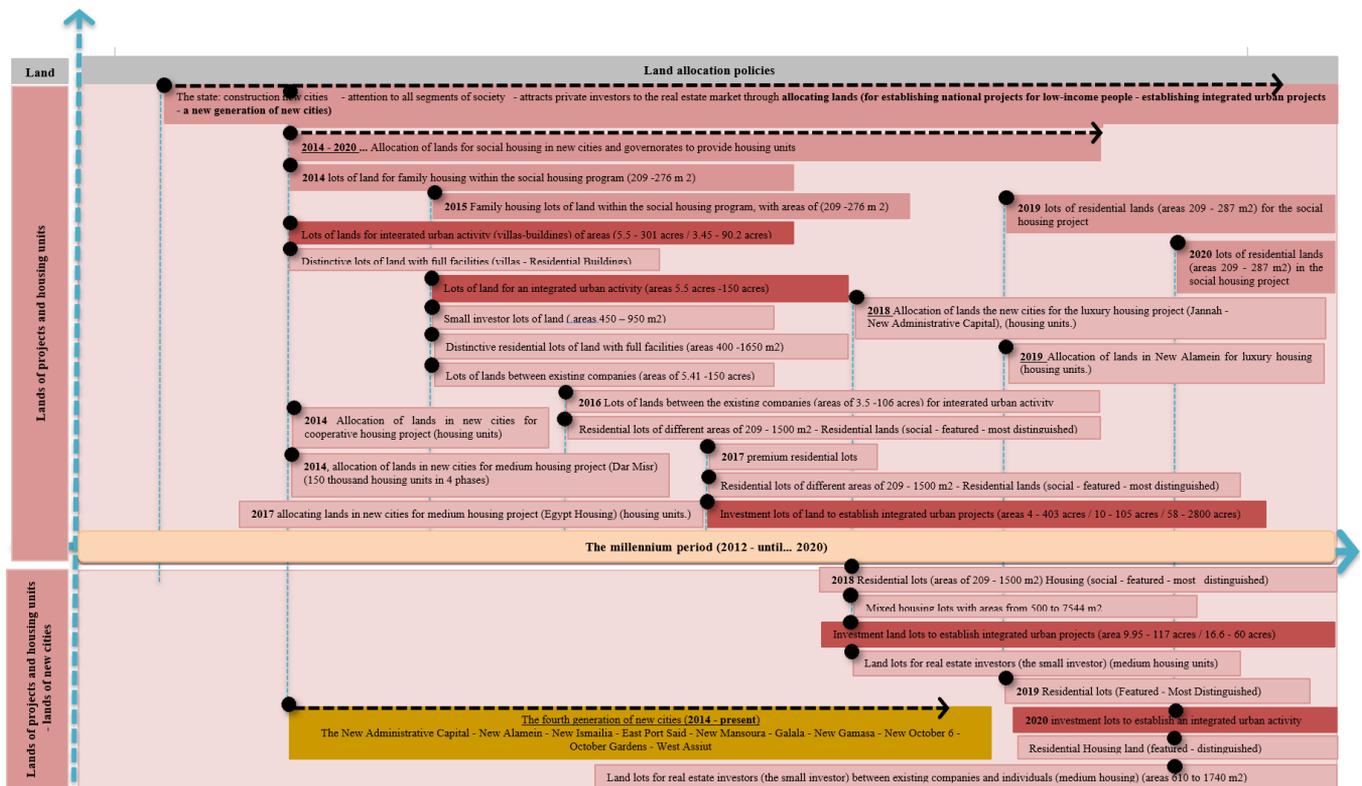


Figure 5. The evolution of the allocation of land for housing in Egypt from 2012 to 2020 (Source: Researcher according the references [2, 10-16])

(3) The informative mechanisms are also suffering from several deficiencies due to the lack of a complete updated inventory of lands and their uses, and the multiplicity and variations of available maps.

(4) The inadequacies of the planning mechanisms also are evident through the extravagant allocation of large lands to companies and individuals that are beyond their investment capabilities. All these reasons have led to a lack of clarity in the ways of land acquisition and allocation.

## **5. INTERNATIONAL AND ARAB EXPERIENCES OF LAND ALLOCATION POLICIES FOR HOUSING AND THE MECHANISMS FOR THEIR IMPLEMENTATION**

This part is a study for selected international experiences (Singapore, Australia, and Morocco) that represent diverse patterns of housing land allocation policies. It embodies an analysis for the mechanisms influencing the formulation of land allocation policies for different housing categories, and their effectiveness in balancing supply and demand of these lands, and accordingly the fulfillment of the needs of different housing groups.

Selection of these experiences is based in some criteria that consider diversity of land allocation policies patterns for housing and the applied mechanisms in each country to implement these policies, in addition to the spatial diversity of these countries. Also, because there are similarities between these countries and Egypt in some problems facing housing issue especially low-income housing, evolution of political and economic systems, high rates of population growth and density and the increasing rates of urbanization in these countries. According to these criteria, countries like (Singapore, Australia, and Morocco) were selected. This is in order to identify the lessons learned from them to come up with proposals for reform mechanisms, improve housing land allocation policies, and link them to the policies and programs of national housing plans. and the possibility of implementing these different mechanisms in a manner commensurate with the specificity of the Egyptian case.

### **5.1 Singapore's experience**

Singapore has a central government system; more than 90% of the land is currently owned and controlled by the government [19]. The acute housing shortage, and the rapid population growth made large scale housing provision a major concern that was reflected in the application of essential policies. Land tenure policies were an important step, as inexpensive land is an important measure in any housing program. Also, several mechanisms affecting the formulation and effectiveness of policies were addressed. These include:

The legal legislative mechanisms: through the reform of legislation related to land and its acquisition, by issuing the Land Acquisition Act of 1966 (LAA). The law, which is a critical step in Singapore's housing policies and the backbone of its large public housing program, gave the state new powers to acquire land compulsorily from private landowners at lower prices than the market for "any public purpose", including residential purposes [19].

The institutional and planning the legal legislative mechanisms: through the land sale program Government Land Sales (GLS) [20] which is managed by the Urban

Redevelopment Authority (URA) and the Housing and Development Board (HDB) as agents on behalf of the Singapore Land Authority. Through the program, the government has restored lands, merged them, built the infrastructure, and provided guidelines for urban planning and design for building housing and offered them to:

(1) Government sector: HDB builds public housing units for sale under 99-year leases at prices affordable to low-income families. The government also intensified the HDB construction program and government land sales significantly which made a complete shift in the housing supply and the housing shortage problem was solved [19].

(2) Private Sector: Where real estate developers, through the Design, Build and Sell Scheme, build non-subsidized housing units for middle-income people through private housing companies. Land is offered for sale (99-year leases) to private developers, including foreigners through public bidding for residential development purposes and for public housing development. The developer who wins the tender undertakes the planning, design, and construction and determines unit prices. However, the residential units remain HDB units with 99-year leases and are subject to all HDB's eligibility criteria, rules, and conditions [19].

(3) Partnership Between the Public and Private Sector: to develop Executive Condominiums; a non-subsidized housing type of similar quality to units developed by the private sector in suburbs.

The information Mechanisms are provided through the Singapore Information Authority, which is responsible for managing and updating digital information on lands through [21]:

(1) Integrated Land Information Service (INLIS): An integrated electronic portal that provides all information about the land (ownership, possession, ...).

(2) One Map: an integrated geospatial electronic platform that provides information, including property registration, possession, area, maps, and mortgages.

### **5.2 Australia's experience**

Australia has a federal system of independent local authorities (states). To address the challenge of providing affordable housing in a high-cost urban housing market of a high housing demand, it followed a policy of inclusionary zoning (IZ) [22] which is including low-cost housing (about 15%) in any housing project as a condition for obtaining approval for development and construction [23].

The planning and institutional mechanisms including inclusionary zoning, planning concessions (Easing of planning rules), and density bonuses for affordable housing construction [24].

Australia witnessed a surplus of 164,000 homes (2001-2017), due to its strategy of encouraging public sector land development, the diversity of developers, and so-called balanced societies resulting from the principle of inclusion [25].

### **5.3 Morocco's experience**

The general system is government ownership of lands, whereby local governments offer serviced lands for housing to address the housing problem which started in the 1980s, with the increase of informal areas due to insufficiency of the rates of housing production. Morocco recently witnessed a revival

in the housing sector [26], by adopting encouraging policies to provide housing for all segments of society through allocating serviced lands, tax exemptions, and reforming financing policies. The financial institutional mechanisms had a significant impact on the formulation and effectiveness of these policies. The new housing policies attracted many private sector investors to build housing for low-income people using a combination of financial incentives for construction companies and homebuyers within the housing programs; Investors get serviced land lots ready for construction, either from private or public companies, at less than the market value provided that the support they receive is transferred to the buyers in the form of prices lower than the market prices [27].

These policies succeeded in reducing Morocco's housing shortage by 50% within eleven years [28]. According to the development plan for the year 2012, 20,000 hectares of public land are allocated for housing over five years [28] through:

(1) Programs' management is based on the cooperation between central, regional and local governments, developers in the public and private sectors, and the participation of the population.

(2) Encouraging private sector developers to participate in the social housing market by providing tax incentives (50% reduction in income tax for companies) and offering serviced lands [29, 30].

Those policies reduced the housing deficit from 850,000 units to 400,000 units between 2011 and 2016 [30].

#### 5.4 Synopsis

We deduce from the study of international experiences that the main land allocation policies are land acquisition, inclusionary zoning, and land adjustment policies. These are implemented through a number of legislative, institutional, informational, planning, financial, and administrative mechanisms. Those policies and implementation mechanisms are used to evaluate the Egyptian case through a comparative analysis.

## 6. RESULTS AND DISCUSSION: COMPARISON AND EVALUATION OF EGYPTIAN EXPERIENCE IN COMPARISON TO ANALYSIS OF GLOBAL PRACTICES

### 6.1 Evaluation of Egyptian experience of housing lands allocation in comparison to selected global practices and its reflections

The adopted policies in each country were reflected in achieving goals of housing sector such as: Decreasing price of land and housing, increasing housing stock, balanced distribution of housing lands on housing groups, providing subsidies to housing and lands, establishing partnerships with private sector in new initiatives to provide affordable housing, purchasing power (afford housing cost), developing and managing information systems of lands and housing sector as shown in Table 1.

Comparing with the Egyptian experience that although adopting similar policies along with its different modes of land allocation in the past period; the reflection of these policies didn't achieve the expected goals to solve housing problem and resulted in:

(1) Unbalanced distribution of housing lands on housing groups, as there is no balance in spatial distribution of residential units between different governorates.

(2) Lack of balance between supply and demand (categorical distribution) in Egyptian real-estate market. Most of governmental housing projects are directed to upper medium and high groups that the market is already saturated with through the spread of luxurious housing projects in new cities and the spread of closed and empty units (between 2-2.5 million units).

(3) The unaffordability and high price of lands and residential units to a large sector of society represented in extremely low and low income and lower-middle income groups.

(4) Undefined housing needs due to lack of accurate data regarding housing groups and its needs.

**Table 1.** Housing land allocation policies in (global practice, Egypt) and its implications

Housing Land allocation policies	Country				Political Implications										
	global practice			Egypt	Prices		Increase of Housing Stock			Subsidy		Private sector participation in new initiatives to provide affordable housing	Purchasing power		developing and managing information systems of lands and housing sector
	Singapore	Australia	Morocco		Lands	Housing	Meeting the demand of housing for all groups (Balance of categorical distribution)	Providing affordable housing for low-income group	Lowering the quantitative and qualitative deficit in housing	Lands	Housing		Providing housing with less price than market (affordable housing)	Providing housing with less cost than market	
				Providing affordable lands (reduced price)	Providing serviced lands for investors with less price than market for low-income families	Providing serviced lands with less price than market value				Providing housing with less price than market (affordable housing)					
<b>Land acquisition policy</b> (Government owns the lands) <b>Main Sector:</b> Governmental sector provides low-income housing <b>Participating sector:</b> private sector provides high and upper-middle income housing and help developing public housing according to (HDB) rules <b>Public-Private partnership:</b> to provide unsubsidized housing in suburbs	✓				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
<b>Inclusionary zoning policy (IZ)</b> independent local authorities (states) <b>Main Sector:</b> Private sector (Real estate developers) providing housing for low- and middle-income groups families by integrating it to projects targeting high income group <b>Participating sector:</b> Governmental sector to organize, monitor and control through the authority of local councils on planning and as a catalyst to private sector		✓			✓	✓	✓	✓		✓		✓	✓	✓	✓
<b>Land adjustment policy</b> (Government owns the lands) <b>Main Sector:</b> Private sector (Investors) providing housing for low-income groups through financial incentives to participate in social housing market <b>Participating sector:</b> Governmental sector to organize, monitor and control through housing financing facilities and as a catalyst to private sector			✓		✓	✓	✓	✓		✓		✓	✓	✓	✓
<b>The state's directions for land allocation for housing</b> Adopting these policies and its various pattern (in the form of directions) to allocate housing lands (Source: Researcher)				✓	X	X	X	X	X	X	X	X	X	X	X

✓ Achieving the desired goals

X Weakness in some housing policies and programs achieving the desired goals

(5) Inability to afford housing costs due to lack of and instability of income.

(6) The stagnation of housing stock, huge surplus for high and upper-middle income groups.

(7) lack of private sector participation in providing low-income housing and focusing on high and upper-middle income groups.

## 6.2 Evaluation of Egyptian experience of housing lands allocation policies and its implementation mechanisms in comparison to selected global practices

The selected practices shows that each housing allocation policy in each country selected set of mechanism that helped achieving the policy goals, of which there are legislative, institutional, informatic, planning, financial and administrative mechanisms. Table 2 shows a comparison between selected global practices and local experience regarding the policies that each country adopted to allocate housing lands and its implementation mechanism and the national housing programs in Egypt.

The table of the evaluation and analysis of the selected global practices and its comparison to local Egyptian

experience shows the following:

Regarding the policies: the policies adopted by global practices used multiple mechanisms to implement the policy and achieve its goals, although each policy focused mainly on certain mechanism and depended on it as it helped achieve the policy goals.

Regarding the implementation mechanisms: flaws were found in the used mechanisms to achieve the policy in Egypt. This flaw is the incomplete implementation of mechanism which affected the achievement of the targeted goals.

**Land acquisition policy** used multiple implementation mechanism, especially the legislative mechanism. When compared to Egyptian experience, these mechanisms were not applied, which affected the policy to not achieve its goals. Hence, it is suggested for the acquisition of housing lands in Egypt to have a legislative framework that regulate central policies of land allocations (safe tenure and property rights through providing land plots with stable tenure rights) to be able for the policy to achieve its goals. Moreover, it is suggested to transform towards a long-term usufructuary right system instead of ownership rights to prevent liquidating subsidies.

**Table 2.** Evaluation of Egyptian experience of housing lands allocation policies and its implementation mechanisms in comparison to selected global practices

Implementation mechanism policies	Legislative mechanisms		Institutional mechanisms										Informatic					
	Land tenure		Sectors		Public-Private partnership										A responsible entity for lands digital information			
	Reforming land tenure regulations	offering lands for rent	Gov.	Private	Governmental sector controls and monitor private sector activity	contribute in providing low-income housing	Provide rental housing	Cooperation between government, developers and interested groups of population	Providing subsidized (affordable housing)	Engaging variety of developers (small and medium size developers)	specifying roles for each entity (implementation, financing, designing, building, or selling lands or housing units)	Leasing public lands for government agencies to build low-income housing	Government agencies developing guiding plans for lands and housing development	Participation of Financial institutions and banks in affordable housing market	A governmental regulative authority to manage housing projects through its phases	Enhancing and developing information system to analyze and evaluate current situation and for decision making	Comprehensive online portal that provides integrated land information	Establishing one map as an integrated online geospatial portal
<b>Housing land allocation policies</b>																		
<b>Land acquisition policy</b> (Government owns the land)	x	x	•	√	•	x	x	•		√	x	√	•	x	x	x	x	x
<b>Inclusionary zoning (IZ) policy</b> independent local authorities (states)				√	•			•	•	√		√			x	x	x	x
<b>Land adjustment policy</b> (Government owns the lands)				√	•		x	•		√		√	•	x	x			

(Source: Researcher)

Implementation mechanism policies	Planning Mechanisms												
	Site selection	Planning process							Standards and regulations				
	Strategic selection of suitable locations to achieve economic and housing goals	Preparing long-term housing plans for developing and improving new and existing cities	Government/ Local authority to prepare comprehensive plans for its territory	Providing lands locations connected to job vacancies	Providing basic services and utilities for housing	Providing various sizes of land plots	Implementation of inclusionary zoning (contribution of low-income housing in housing project)	Preparing feasibility studies to decide (suitable social and economic categories and expected implementation cost	Government providing guiding principles for urban planning and design	private sector prepare design, building, selling plans (in affordable prices for low and middle-income)	Building regulations suitable with different contexts and capacities of all categories	Easing building regulations to build housing in reduced cost and to ensure diverse housing options	Density bonuses within IZ system to encourage affordable housing contribution.
<b>Housing land allocation policies</b>													
<b>Land acquisition policy</b> (Government owns the land)	x	x		x	√	•		x	√		√		
<b>Inclusionary zoning (IZ) policy</b> independent local authorities (states)	x		√	x			•	x		x	√	x	•
<b>Land adjustment policy</b> (Government owns the lands)	x	x	√	x	√	•		x		x	√		

(Source: Researcher)

Implementation mechanism policies	Financial mechanism (Financing and cost)										Management and monitoring Mechanisms					
	Financial policies of financing and subsidy										Cost and purchasing power					
	Sites e leased for 99 years for housing development	Tax/ development fees according to evaluation and land prices	Reduction of land prices (control rents)	Taxed on lands updated twice a year	Different payment facilitations	Tax incentives or waivers/ Reduced development fees	Governmental subsidy (serviced lands at lower price)	Subsidizing interest in case of providing low-income housing	Encouraging real-estate financing policies through housing financing programs	Shared financing resources between private and public sector	Cooperation with real-estate companies and mortgage companies (real-estate mortgage loans)	Reduce housing cost through housing loan, housing grants, real-estate mortgage and less interest rates	Active monitoring of government on land resources and its prices	Balance between implementation phasing and financing and implementation characteristics of housing	Providing unified building regulations and faster development approvals	Regulation to manage subsidized housing land for all private sector entities
<b>Housing land allocation policies</b>																
<b>Land acquisition policy</b> (Government owns the land)	x	x	x	x	√	x	●			x		x	x	●	x	x
<b>Inclusionary zoning (IZ) policy</b> independent local authorities (states)												x	x	●	x	x
<b>Land adjustment policy</b> (Government owns the lands)					√	x	●	●	x	x	●	x	x			x

(Source: Researcher)

Implementation mechanism policies	Management and monitoring Mechanisms															
						Land facilitations		Developers complied to provide low-income housing		Private sector developers' incentives						
	Eligibility criteria to specify low income groups	Controlling developers profit margin	Establishing regulations monitoring housing projects with new cities masterplans	Monitoring new initiatives of providing affordable housing	Ensure supervision role of the government during implementation	Sufficient supply of lands	Providing serviced lands with utilities	Facilitation of registration procedures for land ownership	Developer contribution to low-cost housing is a condition for approvals and building permits	Rent regulations to keep current low-cost housing	Density bonus	Reduction of land cost	Tax incentives/ Reduction of development fees	Faster development approvals and permits	Planning privileges: easing of planning standards in favor of building affordable houses	Financial facilitations for developers
<b>Housing land allocation policies</b>																
<b>Land acquisition policy</b> (Government owns the land)	●	x	●	x	x	●	●	x		x	●	x	x			
<b>Inclusionary zoning (IZ) policy</b> independent local authorities (states)			●	x	x			●		●			x	●		
<b>Land adjustment policy</b> (Government owns the lands)	●	x	●	x	x	●	●	x			●	x	x		●	

(Source: Researcher)

	Mechanisms applied in both international and Egyptian experiences		Mechanisms applied in international experiences and partially applied in some programs in Egypt		Mechanisms applied in international experiences and unapplied in Egypt
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**Inclusionary zoning (IZ) policy** focused more on planning mechanism such as:

- (1) Government provides only the guiding principles for planning and the private sector prepares design and implementation and selling plans (in an affordable price for low- and middle-income groups).
- (2) Easing planning principals to build low budget housing and to diversify the housing types in market (variety of housing types).
- (3) Density bonuses where extra development is allowed that exceeds the normal levels allowed usually in IZ system in exchange of an affordable housing contribution.

When comparing these policies to the Egyptian experience, the private sector collaborated with the state in the implementation of this project (Investors lands) and real-estate companies competed to create a distinguished built environment and improve quality of typology of youth housing compared to what the state provided in previous subsidized projects.

**The land adjustment policy** relied primarily on some planning mechanism such as (providing serviced land plots with infrastructure) in addition to some financial mechanism that helped to achieve the policy goals such as (governmental

subsidies “serviced lands at lower price than market” to reduce the price of lands to be able to provide housing less than market value – Tax incentives or waivers for developers and real-estate investors and encourage them to participate in providing affordable housing).

The following is a comparison between applied in selected global practices with Egyptian experience (Egyptian Housing Programs) to highlight flaws of each mechanism by partially or not applying the mechanism. The suggested mechanism that are suitable for Egyptian context that can positively impact the efficiency and efficacy of policies to achieve its goals are explained below:

#### 6.2.1 Suggested Legislative mechanisms

(Land tenure): 1) Reforming land tenure regulations, 2) offering lands for rent.

#### 6.2.2 Suggested institutional mechanisms

1) Governmental sector controls and monitor private sector' activity, 2) Private Sector: contribute in providing low-income housing.

Public-Private partnership: 1) Public-private partnership to provide rental housing, 2) Collaborations between government

and private sectors and interested population through integration of roles and responsibilities of all stakeholders, 3) Providing subsidized (affordable housing) During the partnership in previous national housing program (Ibni Baytak “Build your own house” Project) between Public and private sector, the beneficiaries of the project managed to fulfill their role in building and implementing the housing units and met the delivery dates while the government failed in its primary role to provide utilities, infrastructure, and services). 4) Engaging variety of developers (small and medium size developers), 5) specifying roles for each entity (implementation, financing, designing, building, or selling lands or housing units), 6) leasing public lands for government agency to build public housing for low-income families, where housing and land national companies merge lands together and prepare detailed plans for it then phase providing the infrastructure then sell it, 7) establishing a governmental regulative authority for managing housing projects, 8) Enhancing and developing information system to analyze and evaluate current situation and for decision making, 9) Participation of Financial institutions and banks in affordable housing market, financial institutions and banks to enter housing affordable financing market through adopting incentives and mechanism that encourage private sector to invest in housing for affordable housing.

#### 6.2.3 Suggested informatic mechanisms

A responsible entity for lands digital information: (1) Comprehensive online portal that provides integrated land information, (2) Establishing one map as an integrated online geospatial portal.

Moreover, there is no information authority responsible for managing and updating all digital information regarding lands and making it available although it is one of the main unapplied mechanisms. Applying it will help making informative decisions regarding land development.

#### 6.2.4 Suggested planning mechanisms

Mechanisms related to site selection to solve problems of housing lands: (1) Housing site selection strategically to achieve economic and housing goals. In Egypt building of housing projects happens according to availability of lands suitable for housing in each governorate, hence most housing projects are concentrated in major urban. Selection of housing project sites should be in adequate locations. Some land that are allocated for housing are located in non-suitable sites for housing).

Planning mechanisms are to achieve balanced distribution of housing lands to fulfill the demand gap and satisfy the needs of low-income groups: (1) Providing land for housing should be connected to plans and job vacancies, (2) Preparing long-term housing plans for developing and improving new and existing cities, Actual evaluation of supply and demand of housing. Actual demand can be assessed through the diversified income of families that is reflected as diversified options of housing for all groups, (3) Providing various sizes of land plots, deciding on spatial and qualitative distribution of lands that are made and will be available for housing specially in new cities, (4) Implementation of inclusionary zoning (contribution of low-income housing in housing project), (5) Prepare comprehensive feasibility studies for the project to decide (social and economic class for the project – expected cost of the project according to capabilities and capacities of each class, especially low-income group .The

lack of these studies is one of the reasons of closed and empty units in Egypt, and the accumulative shortage in low- and middle-income units in housing market in Egypt.

Standards and regulations: (1) private sector prepare design, building, selling plans (in affordable prices for low and middle-income), (2) Building regulations suitable with different contexts and capacities of all categories, (3) Easing building regulations to build housing in reduced cost and to ensure diverse housing options, (4) Density bonuses within IZ system to encourage affordable housing contribution.

#### 6.2.5 Suggested financial mechanisms

Financial policies mechanism: (1) Sites to be leased for 99 years through a legislation that defines land rent, hence land prices decrease, and the government controls the rents. (2) Reduction of development fees as a tax determined by the value of the land following a table of fees updated twice a year, (3) Reduction of land prices (control rents), rents were increased in new cities especially after the usage of public actions to sell lands which increased the competency between developers and investors of private sector to acquire land and helped the increase of its prices which affected the doubling of units’ prices.

Subsidizing and financing mechanism to be applied: (1) Providing tax incentives or waivers and reduction of development fees for lands, to attract more investors from private sector to build low-income housing, (2) Governmental subsidy (services lands with price less than market value) to reduce land cost and housing prices less than market value of lands that are made available to small investors and investment lands, (3) Subsidizing interest (payment methods without interest or with lower interest) ,it is suggested to be applied for small investor lands and investment lands in case it is developed as low-income housing, (4) Encouraging the policies of real-estate financing for housing and its reforms through a housing financing program especially for low-income groups to support and provide affordable housing for this group, (5) Shared financing resources between private and public sector, financing institutions and banks to enter affordable housing financing market and provide multiple financing mechanism and the collaboration with real-estate companies and banks and real-estate mortgage companies (real-estate mortgage loans).

Cost and purchasing power: Reduce housing cost through housing loan, housing grants, real-estate mortgage and less interest rates, to relate unit cost and the purchasing capabilities through finding ways to reduce housing cost to be affordable for low-income groups through loans, housing grants, mortgage, low interest rates, long-term payment through monthly installments that are reasonable compared to income and capacities of each group (25% of income). The ability to afford housing cost through providing housing less than market cost (housing units with lowered price) where investors get land plots with prices less than market value on a condition that will transfer the subsidy).

#### 6.2.6 Management and monitoring mechanisms

(1) Active monitoring of land resources and its prices to give the government the capability to control and plan land use on a wider scale and define geographical and qualitative distribution of lands, (2) The balance between implementation phasing and financing and implementational characteristics of residents, (3) Unified building regulations that are easy to apply and monitor and faster development approvals to make

sure implementation timelines are followed, (4) Regulating subsidized housing land management for the private sector with the aim of supporting housing in comparison to actual needs of population classes especially low-income groups, (5) Eligibility criteria to specify low income groups: Mechanism for defining low-income sector (eligibility criteria – family interviews – changes in family’s livelihoods and family spending analysis – regulations regarding conditions of buying, reselling, renting, and mortgage) aiming at defining project targeted beneficiary groups and evaluate land according to the variance between income level of each group of population, (6) Controlling developers profit margin to reduce housing prices, as private sector is focused on high-income housing for profitability, (7) Establishing regulations for housing project monitoring and compliance with new cities masterplan, (8) Monitoring new initiatives of providing affordable housing to increase the participation through the contribution of investors and private sector developers to provide affordable housing in new cities, (9) Ensure supervision role of the government during implementation, preferably supervising implementation phasing through set of regulations that ensure efficiency of real-estate market and the continuation of activities).

Land facilities mechanisms: (1) Sufficient supply of lands through land subtraction by government that meets the actual demand of housing categories, (2) Providing serviced lands with utilities before the beginning of the implementation which facilitates the construction process and relatively reduce construction cost, in addition to achieving the targeted number of units in each new city, (3) Facilitation of registration procedures for land ownership and issuing needed building permits).

Mechanism for developers complied to provide low-income housing to provide low-cost housing: (1) Developer contribution to low-cost housing is a condition to issue planning approval and building permits as there is a negative correlation between increasing private sector role in real-estate investments and meeting low-income housing needs, (2) Rent regulations to keep current low-cost housing to achieve real-estate market balance and provide housing for all population groups.

Mechanism for private sector developers’ incentives: (1) Density bonus provides low-price housing for low-income groups, (2) Reduction of land cost to contribute in providing low cost housing for low- and middle-income groups as higher land prices is one of the key variables affecting rise in real-estates prices, consequently land price is increased and forms 40-50% of real-estate total cost, (3) Offering facilitations through tax incentives and reduction of development fees for developers and real-estate investors to encourage them, (4) Speeding up the process of housing projects approvals and permits, (5) Planning privileges: easing of planning standers or rules in favor of building affordable houses, (6) Financial facilitations for developers who are building low-income housing as a way to encourage private sector to direct its investments towards this type of housing.

## 7. CONCLUSIONS

This article reviews land allocation policies for national housing programs and projects through proposals and mechanisms for implementing those policies for housing lands in new cities in Egypt. At first, the article reviewed description

of land policies, its axes, patterns, its importance in housing development process and mechanisms for implementing these policies to achieve the required goals. Consequently, urban lands allocation policies affect in various ways on lands market and on the supply and allocation of these lands, especially housing lands, where construction lands are one of the most important factors affecting housing policies and programs. Thus, land allocation policies can be seen as one of the factors that affect implementation of the development goals. The article then monitors and analyzes evolution of land allocation policies and housing policies and programs in Egypt during the period (1952-2012), (2012-2020) to clarify that absence of a clear and compatible policy that links land allocation policies and national housing policies and plans led to a gap between land supply and demand for different housing categories. In addition to the shortcomings of various mechanisms affecting the implementation and effectiveness of these policies.

The article briefly reviewed case studies of international and Arab experiences (Singapore, Australia and Morocco) for land allocation policies and linking them to housing policies and programs for different housing categories. It can be concluded from these experiences that the most important effective policies adopted in these countries for land allocation for housing are land acquisition policy, inclusionary zoning (IZ), and land adjustment policy. These policies are implemented through a set of mechanisms where the adopted policies adopted and their implementation mechanisms are used as criteria for assessing the Egyptian experience through comparative analysis method by conducting interviews with experts and planners to classify and evaluate the proposed mechanisms that can be compatible and applicable in the Egyptian context.

This article ended up with proposing mechanisms for implementing land allocation policies in housing programs and projects in new cities in Egypt. These proposed mechanisms include legislative, institutional, informational, planning, financial, and administrative mechanisms for developing these policies.

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