Inclusionary housing programs: A prospected tool for prompting affordable housing and social inclusion in Egyptian cities

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Abstract

There is a rising accord upon the implication of enhancing social equality and inclusion through urban development. Egypt, like many countries of the developing world, is witnessing widening housing and social inequalities, and the recent social movements of 2011 and 2013 highlight the inherent risks of ill-balanced development policies that fail to safeguard equal opportunities for all. Inclusionary housing is a planning approach that poses an opportunity to address both the limited supply of affordable housing and the exclusion of low and middle income groups. Its programs have the potential of securing affordable housing at a minimal cost to the public sector, and in socially beneficial ways that enhance social integration and improve access of low income groups to employment and services. This paper explores the prospects of inclusionary housing programs in addressing the intertwining housing affordability and social inequality challenges in Egyptian cities and the aspects that would enhance their efficacy, and thus proposes guiding principles for their design and implementation.

Keywords: inclusionary housing; affordable housing; social inclusion

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1. Introduction

Inequality and exclusion are considered major ‘global risks’, and there is a growing consensus upon their significance in urban development (UN Habitat, 2014). Social exclusion and housing are strongly intertwined; exclusion could be from housing (limited housing opportunities), or through housing (isolated housing locations with limited/no access to jobs and services) (Hulse et al., 2010). Housing and its spatial organization should hereby enhance social cohesion and elude marginalization and exclusion.

Egypt, like many countries of the developing world, is witnessing widening housing and social inequalities in urban areas, mainly due to the increasing gap between housing cost and the incomes of low- and middle-income people, and also their exclusion from well-serviced and job concentration communities. These inequalities are increasing through invisible and in some stances visible borders (in gated communities) that exacerbate social, cultural and economic exclusion. The recent social movements of 2011 and 2013, that were clear demands for more equality and inclusion, highlight the inherent risks of ill-balanced development policies and their failure to safeguard equal opportunities for all (UN Habitat, 2014). Accordingly, equal access to adequately-located affordable housing for low- and middle-income Egyptians has become a vital factor in creating a stable society (Nasr, 2012).

Inclusionary housing, sometimes referred to as inclusionary zoning, is an approach that achieves synergies between planning levers and financial incentives in securing both affordable housing and social inclusion. It poses an opportunity to address social exclusion, clearly expressed in the limited supply of affordable housing and the isolation of low- and middle-income households in excluded areas (Brown, 2001). Its programs, aim to achieve housing that is affordable to these underprivileged groups in a manner that fosters economic and social equity. They have the potential of diversifying housing composition and geographic distribution at a minimal cost to the public sector, and in socially beneficial ways that enhance social integration and improve access of low-income groups to employment and services (Hughen et al., 2013; Read, 2008; Burchell et al., 2000).

This paper is an endeavor to employ inclusionary housing to solve the interweaving housing affordability and social exclusion problems in Egyptian cities. It explores the liability of inclusionary housing programs to promote affordable housing delivery in the Egyptian context and inherent features that would augment their efficacy, and proposes guidelines for their design and implementation. As this mechanism has been very limitedly applied in Egypt, propositions are based upon evidence from a range of experiences in countries with diverse regulatory and market settings and related investigative studies, in addition to a series of structured interviews that were conducted with private developers and housing policy makers.

The first section of the paper examines the structure of inclusionary housing programs and design choices of their three main tools; first, inclusionary zoning ordinance; second, developer’s incentives package; and third, monitoring and enforcement mechanisms. The second section outlines preconditions and required studies to determine the prospect of effective application, and the type of inclusionary program the local housing market could support. The third section frameworks factors prompting the efficacy of inclusionary housing programs. It classifies them into four main groups;
• factors affiliated to context;
• factors allied to program structure;
• factors related to implementation and monitoring; and
• supportive financial policies.

The fourth section explores prospects of inclusionary housing programs in addressing the intertwining housing affordability and social inequality challenges in Egypt, and proposes guiding principles for application. It hereby highlights affordable housing predicaments and the current role of the private sector, and puts forward guidelines for inclusionary housing programs design, structuring, management and monitoring in Egyptian cities.

2. Structure of inclusionary housing programs

The diversity of ways in which the main components of inclusionary housing programs can be structured is directly reflected on the production of both affordable and market-rate housing, and their prices (HUD GOV, 2013; Schuetz et al, 2011; Jenny et al., 2009).

As shown on Figure (1), inclusionary zoning programs are structured of three main components; an inclusionary zoning ordinance; a developer’s incentives package; and monitoring and enforcement mechanisms.

![Figure 1. Structure of inclusionary housing programs](image-url)
2.1. Inclusionary zoning ordinance

The zoning ordinance is a main constituent of an inclusionary housing program. A typical ordinance is a set of regulations to be enacted by local governments to ensure real estate developers produce affordable housing for a target low and/or middle-income group (Meltzer et al., 2010; Read, 2009; Burchell et al., 2000). An ordinance’s main features include its type and its detailed configuration.

2.1.1. Type of ordinance

One of the crucial features of an inclusionary zoning ordinance is whether it is mandatory, requiring inclusion of a certain percentage of below market-rate housing units, or voluntary, encouraging/incentivizing their inclusion through incentives/cost offsets, or conditional, based on negotiating set-aside requirements and income targets with developers on a case-by-case basis (Read, 2008; Conlan, nd). Table (1) shows the basic premise, pros and challenges of each type of ordinance.

While voluntary ordinances are based on the premise that incentives (cost offsets) provide sufficient enticement for developers to participate, mandatory ones are likely to be based on the idea that incentives alone are insufficient to motivate developers (Mukhija et al., 2010).

Although mandatory ordinances vary in their degree of stringency, they are more restrictive and are hence likely to be most effective, especially for lower incomes (Los Angeles County Department of Regional Planning, 2012; Schuetz et al., 2011; Lerman, 2006; Katz et al., 2003). They also provide more predictability for developers and the community (Brunick, 2004).

<table>
<thead>
<tr>
<th>Table 1. Types of inclusionary zoning ordinances</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Premise</strong></td>
</tr>
<tr>
<td>Voluntary: Incentivize developers</td>
</tr>
<tr>
<td>Mandatory: Require developers</td>
</tr>
<tr>
<td>Conditional: Negotiate with developers</td>
</tr>
<tr>
<td>Incentives are sufficient to motivate developers</td>
</tr>
<tr>
<td>Incentives alone are insufficient to motivate developers</td>
</tr>
<tr>
<td>Devoid of much of developers’ opposition</td>
</tr>
<tr>
<td>Most effective especially if with generous planning incentives</td>
</tr>
<tr>
<td>Potentially beneficial (greater flexibility)</td>
</tr>
<tr>
<td><strong>Pros</strong></td>
</tr>
<tr>
<td>Voluntary: Requires intensive subsidy</td>
</tr>
<tr>
<td>Voluntary: Incentives can be detrimental</td>
</tr>
<tr>
<td>Mandatory: Requires competent enforcement mechanisms</td>
</tr>
<tr>
<td>Conditional: Potential resistance of developers</td>
</tr>
<tr>
<td>Hybrid approach</td>
</tr>
</tbody>
</table>

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Worldwide, they have been more successful than voluntary programs, based upon the number of affordable units created. According to recent studies by the American Planning Association, they have produced most affordable housing units across USA (Division of Planning, Rhode Island Department of Administration, 2006). California experience (34,000 inclusionary affordable housing units) is an evident illustration (Read, 2008). However, they address major challenges, mainly the inevitability of competent local enforcement mechanisms, such as financial sanctions to address any failure to comply with the program, and the potential resistance of developers (Lerman, 2006). Hence, most inclusionary zoning experts agree that to be most effective, they should be complemented by adequate incentives to offset the financial burden and minimize developers’ resistance (Conlan, nd).

Although voluntary ordinances are generally less successful, they do create affordable units if the program provides sufficient incentives to developers (Lerman, 2006; Calavita et al., 2004). In addition, unlike mandatory programs, they are devoid of developers’ opposition, as they depend on incentives and offer flexible choice to developers. However, de Kam et al. (2013), Schuetz et al. (2011), and Gurran (2008) assure that, for voluntary programs to succeed, incentives must be sufficiently attractive to entice developers. These incentives constitute a major challenge as they require exhaustive public subsidy, and they can also be a detrimental burden for the environment and local infrastructure (Lerman, 2006). Illustrative examples include Cambridge, USA, where the initial voluntary program offering a density bonus was only effective after eight years when it was changed to a mandatory status (Schwartz et al., 2012). Also, a study for fifteen programs in California, USA demonstrated that none of the six voluntary programs was among the most productive of inclusionary units, and three of them had no production (Brunick et al., 2003).

However, Hickey (2013, p.3) asserts that “the differences between mandatory and voluntary approaches can be thin at times, with some ‘voluntary’ policies effectively acting as requirements, and some ‘mandatory’ policies applying only to special districts or certain development types”. Thus, some programs adopt a hybrid approach that strongly encourages mixed-income housing development without requiring it as a matter of law (Read, 2009).

Conditional schemes are also potentially beneficial as they provide a local authority with greater flexibility. As successfully applied in UK, local authorities can negotiate program details with developers seeking development permission for new private housing (Crook et al., 2006). However, they can create political controversy if negotiations are outside the public view. Local governments must hence balance the advantages of conditional ordinances against political opposition that may arise from their use (Read, 2008).

2.1.2. Detailed configuration of ordinance

As shown on Figure (2), the configuration of ordinances includes a number of variables namely set-aside requirements, threshold level of development, income target, period of affordability, tenure, phasing of construction and payments, and planning and design principles.

- **Set-aside requirements**: The percentage of units to be reserved for low-and/or middle-income households are an important decision that has a great impact on housing prices and production (Schuetz et al., 2011). In USA, it ranges from 5% to 35% depending on the income target (Conlan, nd). In both
Canada and new developments in Ireland, the common set aside is 20% (Motu Project Team, 2006). However, 10% to 15% is most common worldwide, and the latter proved to be more realistic in most successful programs (Schwartz et al., 2012; Meltzer et al., 2010; Mukhija et al., 2010; Metro Vancouver Policy and Planning Department, 2007; Gurran, 2008; Calavita et al., 2004). However, as learned from best practice, both set-aside requirement and income target should be designed to reflect local housing needs, and may vary for rental and/or sale units. They could also be negotiated on a case-by-case basis in conditional ordinances (Los Angeles County Department of Regional Planning, 2012; Read, 2009).

**Figure 2. Conformation of inclusionary ordinance**

- **Threshold level of development/breadth of applicability:** A key variable that defines the valid development size, to which inclusionary requirements are applicable, based on financial feasibility. Evidence from past experience is that the higher the threshold level (more exemptions), the less stringent and effective the program will be, as this may encourage tricks such as proposing developments just under the defined threshold level (Schuetz et al., 2011; Calavita et al., 2004). Hence, threshold level must preferably ensure that, unless unfeasible, most residential development projects are subject to inclusionary mandates (Los Angeles County Department of Regional Planning, 2012; Mukhija et al., 2010; Netter, 2000).

- **Income target:** A key variable that determines the maximum income of residents eligible to occupy the affordable units, usually defined in terms of area median income (AMI). Mukhija et al. (2010) and Netter (2000) outline related controversial issues to be addressed including the number of income limits, and income categories (deep versus high targeting). Although deep targeting (low and very low income groups) does not in itself discourage production and is sometimes a factor of success when coupled with adequate funding resources, higher targeting is more likely to produce greater numbers of units, as it implies less reductions in developer profits, and augments attraction of market rate dwellers to the project (Schwartz et al., 2012; Schuetz et al., 2011). It is hence beneficial to initially target middle-income (Los Angeles County Department of Regional Planning, 2012; Metro Vancouver Policy and Planning Department, 2007; Calavita et al., 2004).

- **Period/duration of affordability:** This tool is used to ensure continued affordability of units after initial resale or leasing, which is a major goal and management challenge for inclusionary housing programs. It varies from only short periods (15-30 years) for an initial set of tenants, to longer periods (up to 99
years). Factors to be weighed when deciding on the appropriate duration include ensuring units are available to lower income households for as long as legally possible, while allowing for mobility and neighborhood change over time (Netter, 2000). Previous experiences verify competence of longer periods (Los Angeles County Department of Regional Planning, 2012; Metro Vancouver Policy and Planning Department, 2007). A manifest example is the oldest running program in California (Montgomery County) which lost about 28% of the affordable units due to limited affordability periods (Schwartz et al., 2012). To maintain affordability, ordinances should enforce mechanisms such as deed restrictions, which are restrictive covenants that limit lease and resale to beneficiaries that meet income targets, and delineate future maximum resale values, based on the original purchase price plus an annual return on equity. To avoid a potential shortcoming of limited household mobility, deeds can include equity recapture provisions that enable resale at prevailing market rates to any buyer, on condition of donating a share of the capital gain and/or the first right to purchase to the local housing trust fund or a non-profit affordable housing organization. Some ordinances implement a hybrid approach where this is applied after a short period of prohibited resale for a profit (Williams et al., 2008; Netter, 2000).

- **Tenure:** An important variable which delineates the mix of for-sale and rental units. As for-sale units require additional up front capital for purchase, they generally target higher area median incomes AMI (Williams et al., 2008). Local governments should decide on the desirable mix, based on recent affordable housing needs assessments (Curran et al., 2008).

- **Phasing of affordable units’ construction and payments:** An additional variable that should be clearly outlined and strictly monitored by stipulating penalties for undeveloped affordable units and delayed payments (Los Angeles County Department of Regional Planning, 2012; Netter, 2000). Also construction should be scheduled prior to or during building market rate units (Williams et al., 2008).

- **Planning and design principles:** These identify size, external features and distribution of affordable units. Experience proved that affordable units should blend in and be visually compatible to and harmonize with market rate units, and retain the same basic amenities (Williams et al., 2008; Read, 2008; Rawson et al., 2002). However, regulations might allow trade-offs like smaller unit size and less-expensive inner finishing, depending upon prevailing local housing-market conditions, and the available public funds (Schwartz et al., 2012)

### 2.2. Developers’ incentives

As asserted by Murphy et al. (2013) affordable housing production is a process that is inherently risky and involving substantial upfront expenditure. Basic economic theory suggests that without incentives to cover this cost, developers would raise prices of market-rate housing, and/or develop less housing, and/or negotiate to pay less for certain development inputs such as land (Brunick, nd). Selecting the type/s of incentives is an important decision that can affect developers’ willingness to participate. Hence, it should preferably be decided upon through consultation with developers during program design. Also, as the economics of development vary significantly spatially and over time, different incentives may be needed in different communities and in different market cycles, and they should be reviewed over time to ensure continued effectiveness (Center for housing policy, 2008).
As shown on Figure (3), incentives are classified into opt-outs/alternative types of inclusion, and planning related incentives. It should be noted that although direct economic incentives are preferred by developers, they are not common as they contradict the essence of inclusionary zoning (Read, 2009 & 2008).

### 2.2.1. Opt-outs / alternative types of inclusion

Opt-outs, including off-site construction, in-lieu fees, and land dedication, can be allowed when on-site construction is financially unfeasible, or if the size of the project makes it impossible to enforce it (Read, 2008). A basic relevant challenge is the possibility that opt-outs become loopholes for opposing developers (Calavita et al., 2004).

- **Off-site construction**: This opt-out allows affordable units to be concurrently constructed in a different location (Mukhija et al., 2010). An argument in its favor is that it might consent more affordable units if land is cheaper off-site. It is however criticized for its liability to preclude lower-income households from social and economic opportunities, if not carefully crafted (Los Angeles County Department of Regional Planning, 2012; Netter, 2000).

- **In-Lieu Fees**: This opt-out permits developers to fulfill their inclusionary requirements by paying a fee which is typically deposited into a city's affordable housing trust fund to finance or build affordable housing projects, acquire land, or provide a source of subsidy funding. Advocates find it an option for providing more housing units on cheaper land and for deeper income-targets (Hickey, 2013; HUD GOV, 2013; Mukhija et al., 2010). It succeeded in several experiences (like in California), especially in small projects, and level of success depends on the way the fee is calculated, collected, and used (Calavita et al.,...
2004). Related challenges include the difficulty to set fees at a level agreeable to both public officials and developers, and to ensure construction of affordable housing (The Urban Institute, Washington, 2012).

- **Land dedication**: Donating an equivalent amount of land in another location is another opt-out that may be allowed in markets where developable sites are scarce, like infill projects, or where a greater number of units can be provided at an alternative location (Mukhija et al., 2010). The success of this option depends on the location and quality of the donated land, and the capacity of local authorities or nonprofits to undertake development (Los Angeles County department of regional planning, 2012; Regional inclusionary housing initiative policy tools series, nd).

To conclude, opt-outs are needed for projects below a specified size, and for very high value developments (Hughen et al., 2013). A study by Porter et al. (2009) for three inclusionary housing programs that allow opt-outs showed that they attained widespread support from both developers and residents, improved the housing stock, and contributed to neighborhood sustainability. However, opt-outs are controversial due to the uncertainty of converting in-lieu fees and dedicated land into affordable units, and because they might not reflect the true cost of producing comparable affordable housing particularly in areas with high land prices. They also might challenge the goal of creating inclusive communities (Hickey, 2013; Read, 2009).

### 2.2.2. Planning related incentives

Planning related incentives include density bonus, flexible development standards/relaxed design standards, fast-tracking/expedited permit approval, and fee reductions for development permits.

- **Density bonus**: A percentage of the density allowed under normal zoning regulations which constitutes one of the most common incentives designed to subsidize the fixed costs of development (Murphy et al., 2013). Its main advantage to developers is improved financial feasibility due to the increased number of units and reduced per unit land cost for both affordable and market-rate housing, a saving that can moderate market-rate housing prices (Tomalty et al., 2004). According to Hughen et al. (2013), this incentive may be more valuable in strong markets where additional housing units can be sold or leased at favorable prices, and consumers consent to live in high density projects which embrace affordable housing. Valid concerns in deciding the bonus level include existing density limits, land’s value and carrying capacity, environmental conditions, infrastructure capacity, and neighborhood character (Hickey, 2013; JG consulting services, 2010). In Montgomery County the most successful inclusionary affordable housing program in USA, developers receive up to a 22% density bonus (Lerman, nd). Although density bonus was effective in many inclusionary programs, critics argue that increased density represents an unplanned surplus of development that burdens both the overall environment and the public facilities and infrastructure (Calavita et al, 2009). Moreover, it resulted in higher land values in some experiences, as in Vancouver, Canada (Gurstein, 2012).

- **Flexible development standards**: The relaxation of some building and site regulations including reduction in setbacks, increase in heights, and lessening the size of amenities of affordable units (Los Angeles County department of regional planning, 2012; JG consulting services, 2010; Metro Vancouver policy and planning department, 2007).
• **Fast-tracking or expedited permit approval:** The acceleration of the permit approval process is valuable in markets where tracking is slow. However, the administrative cost required to establish an expedited project review may be somewhat high, but the approach can become cost effective over time (Read, 2009).

• **Fee reductions (waivers for development permits):** A tool to reduce developers’ cost of obtaining regulatory approvals that is valuable in markets where development fees are high. However, it is not appropriate where local governments rely heavily on those fees, as it limits the available amount of revenue, which may impinge upon a local authority’s ability to provide and maintain public services and infrastructure (Read, 2009).

2.3. Monitoring and enforcement

Accountable and effective administration, monitoring and enforcement are critical components of inclusionary housing programs. Transparent and clear mechanisms should be set for the entity responsible for marketing and choosing purchasers or tenants, affordability control, legal documentation, and managing funds. This could be the local or housing authority, an affordable housing trust fund, or a housing consultant working on behalf of the community (Netter, 2000).

3. Preconditions for application of inclusionary housing programs

According to de Kam (2013), Morrison et al. (2013), Murphy et al. (2013), Meltzer et al. (2010), Burchell (2000), and Netter (2000), prerequisite studies to determine the possibility of applying inclusionary housing, and the type of program the housing market could support comprise,

- first, analyzing housing market strength including housing demand, land availability and costs, ongoing housing projects, development opportunities, and zoning restrictions;
- second, scrutinizing development feasibility, the availability of an economic basis for the program, and appropriate levels of affordable housing;
- third, examining the readiness of a strategy for creating local political support for the program, including the initial and possible supporters for the program, and the entities that have the potential to lead the efforts to create community consensus;
- fourth, investigating the efficiency of the administrative system and whether it is competent to specify requirements, implement and monitor the program; and
- finally, investigating the interlinked adequacy of both the planning and housing systems (Figure4).
4. Factors prompting the efficacy of inclusionary housing programs

Effectual inclusionary housing programs are those that achieve both the demanded numbers of affordable units, and socioeconomically integrated communities that provide equal opportunities for different income groups (Conlan, nd). As shown in Figure (5), the paper classifies factors prompting this efficacy into four main groups;

- factors affiliated to context (type of development - housing market conditions);
- factors affiliated to program structure, namely program design and characteristics, type of ordinance, detailed configuration of ordinance, and developers incentive package/cost offsets;
- factors affiliated with implementation and monitoring; and
- supportive financial policies.

Figure 4. Preconditions for the application of inclusionary housing programs

Figure 5. Factors prompting efficacy of inclusionary housing programs
4.1. Prompting factors affiliated to context

As shown on Table (2), context-related prompting factors are classified into: type of development, market conditions, political structure and will, planning and legislative frameworks, and the local community.

4.1.1. Type of development

An inclusionary zoning ordinance must be suitable, not only for new development, but also for in-fill sites, where it should arguably offer strong incentives in order to overcome the expectedly higher land costs (Brown, 2001; Conlan, nd).

4.1.2. Housing market conditions

Past experience demonstrates that effective programs require a strong housing market, with high development appeal and available developable land (Mah, 2009; Gurran et al, 2008-a; Lerman, 2006; Katz et al., 2003; Douglas, 2000). High demand for market-rate housing limits the subsidy needed for the affordable housing component, and is hence more conducive to developers to accept the demanding inclusionary zoning requirements (de Kam et al., 2013; Voith et al., 2012; Calavita et al., 2010). In weak markets, additional requirements increase disincentives to development, and it may also be difficult to encourage market-rate renters and home-buyers to reside in development projects together with very low-income residents (Read, 2008). Flexible market conditions can also mitigate the burden developers face in meeting inclusionary requirements, and enable them to generate a ‘market’ profit, which in turn increases the production of affordable housing (evidence from USA and Canada) (Motu Project Team, 2006).

<table>
<thead>
<tr>
<th>Type of development</th>
<th>Suitability to both new and infill development</th>
</tr>
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<tbody>
<tr>
<td>Housing market conditions</td>
<td>Strong housing market</td>
</tr>
<tr>
<td></td>
<td>Availability of developable land</td>
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<tr>
<td></td>
<td>High demand for market-rate housing</td>
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<tr>
<td></td>
<td>Flexible market conditions</td>
</tr>
<tr>
<td>Political structure &amp; will</td>
<td>Local political advocacy</td>
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<tr>
<td></td>
<td>Central government support</td>
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<tr>
<td></td>
<td>Enforcement of an enabling policy &amp; legislative framework</td>
</tr>
<tr>
<td>Legislative framework</td>
<td>Stringent land use regulations</td>
</tr>
<tr>
<td></td>
<td>Congruence between central &amp; local planning law &amp; institutions</td>
</tr>
<tr>
<td>Planning framework</td>
<td>National planning endorses AH as a key policy objective</td>
</tr>
<tr>
<td></td>
<td>Incorporation into a broader, comprehensive AH strategy</td>
</tr>
<tr>
<td></td>
<td>Integration with social policies</td>
</tr>
<tr>
<td>Local community</td>
<td>Advocacy for program</td>
</tr>
<tr>
<td></td>
<td>Well-established AH nonprofits</td>
</tr>
</tbody>
</table>

Table 2. Context affiliated prompting factors

AH: affordable housing
4.1.3. Political conditions

Middleton (2011) stresses the significance of the political context. Critical related attributes include local political advocacy together with central government support for local authority and housing developers, enforcement of an enabling policy and legislative framework, and interventions via planning and other means to ensure availability of land for new housing (deKam et al, 2013; Gilmour et al., 2011; Mah, 2011; White et al., 2003).

4.1.4. Legislative framework

Successful experiences demonstrate that ordinances should be underpinned by stringent land use regulations including zoning requirements, subdivision regulations, and building codes that eliminate exclusionary requirements (Pogliani, 2013; Schuetz et al., 2011).

4.1.5. Planning framework

National planning must endorse affordable housing as a key policy objective. Mah (2009), Curran et al.(2008) and Center for Housing policy (2008) affirm that, in order to address all affordable housing needs, a program should be incorporated into a broader comprehensive affordable housing strategy, rather than being a stand-alone approach. Moreover, Gilmour et al. (2011) assert that programs also need to be well integrated with social policies.

4.1.6. Local community

Community acceptance for the program, and presence of active local groups who advocate for it, are crucial (Mah, 2009; Netter, 2000). Existence of well-established affordable housing nonprofits is also essential (Meltzer et al., 2010).

4.2. Prompting factors affiliated to program structure

As shown on Table (3), prompting factors affiliated to program structure are classified into four groups relevant to design, type, detailed configuration, and incentives.

4.2.1. Program design and characteristics

As deduced from previous experiences, programs are preferably designed through consultations with stakeholders, especially developers (Mah, 2009). They should be dynamic and adaptable to changing development patterns and local economic and housing market conditions, and also applicable to various community contexts. Moreover, they should be predictable, and requirements need to be clear and flexible, and administered consistently so that developers can reliably estimate their profit. Most importantly, they must provide a locally practical balance between affordable housing goals and developer interests (Los
Angeles County Department of Regional Planning, 2012; The Urban Institute Washington, 2012; Center for Housing policy, 2008; Brown, 2001).

4.2.2. Type of ordinance

Based on evidence from past experience, HUD GOV (2013), deKam et al. (2013), Schuetz et al. (2007), and Gurran et al. (2008-b), assure that inclusionary housing ordinances are enhanced by theirs stringency, that the most effective programs are mostly mandatory, offset by a flexible clearly-defined incentive scheme. Otherwise, communities will most likely have to provide an extremely high level of subsidy to entice developers, which contradicts the central premise of inclusionary housing (Conlan, nd). Moreover, hybrid approaches and conditional schemes can be most effectual, and must hence be carefully considered.

Table 3. Program affiliated prompting factors

<table>
<thead>
<tr>
<th>Program affiliated prompting factors</th>
<th>Design</th>
<th>Type</th>
<th>Ordinance: detailed conformation</th>
<th>Developer incentives</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>A practical balance between AH goals &amp; developer interests</td>
<td>Mandatory offset by flexible incentives</td>
<td>Set-aside :</td>
<td>Sufficiently address the “profitability gap”</td>
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<td></td>
<td>Flexible, dynamic &amp; adaptable to changing development patterns &amp; market conditions</td>
<td>Conditional is a beneficial option</td>
<td>◦ Reflects housing needs &amp; adjustable</td>
<td>Reflect developers’ will and ability to use</td>
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<td></td>
<td></td>
<td></td>
<td>◦ Range around 10% is realistic</td>
<td>Stronger incentives in infill and renewal sites</td>
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<td></td>
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<td></td>
<td>Threshold : Preferably large</td>
<td>Opt-outs limited to special situations [development size &amp; feasibility]/ Categories &amp; procedures have a clear basis &amp; standards</td>
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<td></td>
<td></td>
<td></td>
<td>Income target :</td>
<td>In lieu fees: As high as cost of constructing AH / Mechanisms to ensure conversion to AH</td>
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<td></td>
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<td></td>
<td>◦ Based on a strong needs assessment</td>
<td>Land dedication &amp; off-site construction: restricted to the same planning area</td>
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<td></td>
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<td>◦ Including low income unless infeasible</td>
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<td></td>
<td>◦ Initially adopt middle income targets</td>
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<td>Period of affordability</td>
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<td>Permanent or long-term [deed restrictions]</td>
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<td></td>
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<td></td>
<td>Tenure: Mix reflecting needs of target group</td>
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<td>Phasing: Construction before or concurrently with market rate units</td>
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<td>Planning &amp; design principles: Integration &amp; harmony with market rate units</td>
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AH: affordable housing
4.2.3. Detailed configuration of ordinance

Set-aside inclusionary requirements should be designed to reflect housing needs, and need to be adjustable for particular market contexts (Gurran et al., 2008-a; Collins et al., 2004). 10% proved to be realistic in many experiences (Calavita et al., 2004). To promote social inclusion, it is highly recommended to construct affordable housing on-site (Gurran, 2008). However, programs should consent to alternative options in certain situations, and local authorities can adjust these options as market conditions change (Hickey, 2013). As for development threshold, there is some evidence that programs which exempt smaller projects produce more affordable housing (Los Angeles County Department of Regional Planning, 2012; Schwartz et al., 2012). Income target should be defined based on a strong needs assessment procedure Gurran et al, 2008-a). Although it is recommended to include low- and middle-income households unless financially unfeasible, it is beneficial to initially adopt middle-income targets to ensure attraction of market-rate consumers to the project, and because the economic incentives required for encouraging such development is smaller, as it poses less financial burden on private developers (Calavita et al., 2004; Rawson et al., 2002; Read, 2008). The period of affordability should ensure its continuation after initial resale or leasing. Rental units must preferably be kept affordable permanently or for long periods. For homeownership units, programs should apply mechanisms like deed restrictions (Center for Housing Policy, 2008). Tenure structure should be based on an understanding of the nature of the affordable housing problem; target groups and their demands (Read, 2008). Also, inclusionary requirements should be similar for rental and for-sale housing to ensure a balanced mix of both tenure types (Calavita et al., 2004). As for phasing, experience demonstrated that it is recommended to require inclusionary units to be produced before or concurrently with market rate units (Rawson et al., 2002). Finally, successful experiences demonstrate that affordable units should be preferably integrated within market rate units, and harmonize with them (Morrison et al., 2013).

4.2.4. Developers incentive package

Developer incentives or cost off-sets have proven to be a fundamental factor of success of inclusionary housing programs (Los Angeles County Department of Regional Planning, 2012; Burchell et al., 2000; Conlan, nd). To ensure their effectiveness, Brunick (nd) stresses that they must sufficiently address the “profitability gap” faced by developers. A study for successful programs in California showed that a project was deemed “feasible” if it could sustain a 10% profit margin for the private developer. Calavita et al. (2004) and Rawson et al. (2002) also emphasize that incentives should reflect developers' will and ability to use, and must preferably be decided upon consultation with developers during program design. Experience also showed that stronger incentives are essential in infill and renewal sites to overcome higher associated costs (Conlan, nd). Calavita et al (2004) and Rawson et al (2002) affirm that prior to including opt-outs in an inclusionary housing program; their pros and cons should be carefully considered. If found to be a suitable option and hence applied, Collins et al. (2004) point out that opt-out categories and procedures should have a clear basis and clear standards for eligibility. It is also preferable to require off-site construction rather than in-lieu fees. Mukhiya et al. (2010) and Read (2008) complement that the fee level should be set as high as the cost of constructing affordable units without other public subsidy, and adjusted regularly. They also recommend
that effective institutional mechanisms should be put in place to ensure fees are converted into affordable units in adequate locations, and within a reasonable period of time. As for land dedication and off-site construction, Los Angeles County Department of Regional Planning (2012) recommends that they should be restricted to the same planning area and determined through detailed economic analysis.

4.3. Factors affiliated with implementation and monitoring

An effective administrative system must be established, and appropriate managerial levers and procedures should be put in place to ensure adequate monitoring and enforcement and proper affordability control and preservation (Mah, 2009; Metro Vancouver Policy and Planning Department, 2007). To guarantee proper and sustained affordability control, compliance with the program, continued fine tuning and update of program to adapt to changing development patterns, equivalent implementation to all similarly situated developers, and reaching targeted income group, programs should be accomplished and monitored by local government through broad-based consultations with stakeholders including both for-profit and nonprofit developers (Schwartz et al., 2012; Mukhija et al., 2010; Curran et al., 2008; Center for Housing Policy, 2008; Collins et al., 2004). As learned from the experience of Italy, public-private joint ventures are useful, especially for managing rental housing (Pogliani, 2013). Moreover, the purchase of inclusionary housing-mandated units by affordable housing agencies or nonprofit organizations can support the program's implementation and enhance the affordability of units (The Urban Institute Washington, 2012).

4.4. Supportive financial policies

SGS Economics and Planning (2007) recommends supportive financial policies to assist target groups. For ownership units, they suggest ‘low start loans’ which are loans where repayment installments are low initially but increase as income and asset values rise over the period of the mortgage. As for rental properties, they recommend ‘direct rental subsidies’. Typically, the amount of subsidy is determined by the low-income recipients’ rental costs and income. Structuring the subsidy in this way enables the recipient to make housing choices that reflect individual values concerning housing type, location and affordability.

5. Prospects of inclusionary housing programs in Egypt

This section of the paper is an endeavor to employ the outcomes of the former overview, as well as the conducted interviews with housing developers and policy makers, to address housing affordability and correlated social inequality challenges in Egypt. It highlights ongoing affordable housing predicaments and the correlated role of private developers, and thus proposes guidelines for developing inclusionary housing programs in Egypt. These include program design principles, rapport with other policy contexts, fundamental structuring principles, and management and monitoring approach.

5.1. Affordable housing predicaments and pertinent role of private developers

The main challenge facing the housing sector in Egypt, as many other developing countries, is the lack of affordable housing due to the persistent gap between income and housing cost for limited income groups
Factors boosting this gap include high land and construction costs, low average median household income (AMI), deterioration of older housing stock, and rent control regulations which further exacerbate the situation. The geographic mismatch of housing supply and demand also adds to the problem, as most housing is located in distant new towns (World Bank, 2008). Also, low income households typically have limited access to mortgages or other long-term sources of housing finance, and are therefore effectively confined to the usually poor quality badly located rental sector social housing, and informal low cost market housing (LaSalle, 2011).

Egypt is one of the few countries where the government is still directly supplying public housing, and yet it was not able to fulfill the demand mainly due to the inability to finance the heavily subsidized programs (subsidy reaches 74% of the unit total cost including land and infrastructure). In 2004, the total annual demand for housing units was approximately 750,000 units (480,000 for newlyweds; 220,000 for replacement of marginalized areas; and 50,000 for collapsing old buildings). However, the total supply to the formal housing market was only 260,000 units (about 35% of demand) (OPIC, 2005). In 2011, the housing need increased to 1.5 million affordable units across the country (LaSalle, 2011). After the 25 January revolution, the government prepared an ambitious public housing program of one million units over a five-year period, but it failed to assemble the necessary funding to cover subsidies especially for very low-income families.

In the last two decades, the government started new housing programs and laws for attracting private investment to the housing sector. More recently, it introduced several development and housing schemes to encourage direct public-private partnership and direct private-led housing supply, resulting in an increase in the share of private sector housing production (UN Habitat, 2012). However, as asserted by La Salle (2011), only a few private developers target affordable housing and their contribution is mainly for middle income beneficiaries. Projects assumed by Orascom Housing Communities’ (OHC) and Talaat Mostafa Group (TMG) are manifest examples. Stemming from their corporate social responsibility, OHC launched three large affordable housing projects; Haram City (2000 feddans) in 6th of October new town in 2007, Haram life (120 feddans) the newest phase of Haram city, and Qena gardens (660 feddans- 8000 units) in 2010, and will launch a fourth project in Fayoum. Haram city is a fully integrated community that will hold approximately 70,000 housing units, of which 11,500 have already been constructed. The main incentive offered by the government was low land cost (10,7 L.E. /m2). However, the infrastructure cost (400L.E. / m2) imposed a high burden upon the developer. Another incentive was relaxing the initially two floors permitted height to four floors in new development. Tenure is for-sale through relaxed installments, and the project is supported by the ‘Affordable mortgage finance program’ whose basic premise is direct demand-side subsidy for middle and low-income households earning between L.E. 1000 and L.E. 2500 per month. Target group is middle income; family monthly income does not exceed LE 2500, and age is between 21 and 50 years. In a developed phase, socio-economic mix was achieved through housing 2000 very low income families from the rock-side victims of Dueika with the original residents who are mostly university graduates. Their residential units were smaller in size (63 m2 and 48 m2 and 34 m2), and 535 units were totally sponsored by developer and the rest were funded by the government. It should be noted that the original residents initially resisted the mix, but they gradually started to build an economic-based relationship with the new residents who
provided the city with the needed hand labor. Talaat Mostafa Group also has a successful experience of integrating middle-income with high-income residents in ‘Rehab city’, New Cairo. The small size (50m2 and above) middle income housing units are combined with high income units (up to 350 m2) in adjacent buildings, however not with luxurious villas. The project hence fulfills social integration and harmony. These mixed-income areas were constructed in the fifth stage of development. The units are for-sale, through long-term installments that were 7 years at launch, but were later extended to 15-17 years, and the units are delivered to purchasers after 4 years from contracting. The first installment is 4000L.E. and the monthly installments are 300 L.E./month for the smallest (50 m2) units. In a more recent large-scale TMG project ‘Madinaty’, 7% of the units are assigned for low-income groups (145 feddans of a total of 8000 feddans), but unlike the high income units, construction of those units has not yet started. Moreover, a third developer EMAAR company has a led a social housing initiative for underprivileged people in Upper Egypt, Luxor comprising 37 homes in ‘Boyout’ residential project (41000 m2).

5.2. Guidelines for inclusionary housing programs in Egypt

The prospected role of private developers in addressing the housing affordability challenge in Egypt is increasingly recognized. The long term plan proposed by the UN Habitat Mission Report reviewing the Egyptian national housing program (UN Habitat, 2012), stressed the necessity of revisiting housing polices to ensure private developers’ participation. Recommended approaches included a supporting role of the Ministry of housing, utilities, and urban development for developers, through development of a boosting legislative framework, and introduction of tax reliefs and other incentives.

Inclusionary housing is thus potentially constructive; several of the preconditions for effectual application (section 4) are to a great degree fulfilled in most Egyptian cities where the housing affordability problem is critical. Also, the interviewed housing policy makers assure that this approach is essential to limit the snowballing informal housing development from which many Egyptian cities are suffering, and also to alleviate the potential social tension resulting from the increasing exclusion through gated communities, especially in Greater Cairo and coastal areas. It is hence important to clearly outline design and structuring principles that can augment the success of inclusionary housing programs in the Egyptian context.

5.2.1. Program design principles

Most of the inclusionary housing literature consents that there exists no ‘magic formula’ for the delivery of a successful inclusionary housing program (Schuetz et al., 2011; Mah et al., 2011; Dietderich, 1996). Program design and implementation must be hence built upon profound understanding of the local context in which it will be applied, as well as the outcomes of or previous experiences in similar contexts.

As demonstrated on Figure (6), factors to be carefully studied by Egyptian housing and local authorities to structure effective context-specific inclusionary housing programs include:

- Housing market conditions and factors restraining the availability of affordable housing;
- Segments of the community most in need for affordable housing and appropriate tenure;
Development feasibility;
Potential approaches for creating local political support;
Prospective strategy for enhancing competency of the administrative system;
Required adjustments of policy and legislative frameworks;
Regional planning framework (potential sites for affordable housing inclusion).

Also, programs should be preferably designed through consultations with stakeholders, especially developers.

5.2.2. Rapport with related policy contexts

As inclusionary housing programs are not an alternative to direct public investment in affordable housing, the two types of programs should work together (Calavita et al., 2010). Also, success of programs is strongly allied to active housing finance schemes that, as recommended by La Salle (2011), could be accomplished by providing increased access to long-term housing finance through government entities or government controlled banks. It is also basically crucial, in the Egyptian political and planning context, to craft programs within a comprehensive housing strategy. Also, as asserted by Klug (2013, p.677), they must be "part of a broader set of planning gain mechanisms aimed at value capture and enabling social inclusion". Not less significant, they should be integrated with and compliment social policies and other relevant policy objectives.
5.2.3. **Fundamental structuring principles**

Flexibility and dynamism are underlying principles for program structure, as programs should be adaptable and allow adjustment for particular market contexts in different communities, and also for alterations in local economic and housing market conditions throughout different market cycles. Another crucial factor that is directly reflected upon developers' response for a program is its predictability, and thus, requirements need to be clear and consistently administered so that developers can reliably estimate their profits.

Interviewees' opinions regarding the suitable type of ordinance (stringency level) were diverse. The paper advocates applying a hybrid approach, at least in the first phase; to acquire land, developers would be required to consent to the program. However, programs will offer high, clearly identified incentives including one or more of: reduced land cost and relaxation in installments schedules, expedited permit approval, a potentially valuable incentive as tracking is usually slow in the Egyptian context. Incentives would also include limited relaxation in some building standards, like affordable buildings' heights (as in Haram city). Fee Waivers and tax reliefs could also be considered. However, though prevalent in many worldwide experiences, all interviewees do not recommend using density bonus, as it might be detrimental to the project quality, as well as posing a burden on local infrastructure and environment. In advanced phases,
when programs become established and prove their success, conditional ordinances based on transparent and controlled negotiations with developers on a case by case basis could be considered, especially for infill development where land cost is usually high. Developers' incentives should be carefully calculated to fulfill a balance between affordable housing goals and developer interests, and as housing development is high risk, most interviewees agreed that a 20% profit margin should be secured. It should be noted that although many worldwide experiences defined a 10% profit margin, interviewees assured that it is very low and could be detrimental to the development process in Egypt.

Application would be in new development where there is available developable land, and high demand for market-rate housing, at least in the first phase. All interviewees agreed that development threshold should be high and thus, programs should be applied to large-scale projects (not less than 200 feddans). Set aside requirement should range between 5-7%, depending on the price of land. Identifying income target should be based on a strong needs assessment methodology. However, the interviewees asserted that the target group for on-site inclusionary housing should be middle income, at least in the first phase of application. Regarding planning and design principles, on-site affordable housing must harmonize with market rate housing, and be physically integrated with it (as successfully applied in Rehab city). However, it is not recommended to integrate it with luxurious villas, because this might limit a project’s liability to attract market-rate buyers, and hence increase developer resistance. If included in the program, low-income units would be off-site or physically separated from market-rate units. Preferred tenure type was controversial; while developers favor for-sale, housing, policy makers advocate rental. The paper advocates the UN Habitat (2012) proposition of developing regulations and incentives to encourage rental tenure, and augmenting the Egyptian Government's recent approach ‘rent-to-own’, which is ownership through small long-term installments (up to 30 years). Suggested supportive financial mechanisms to assist target groups include lower interest rates or ‘Low start loans’ for middle income groups, and enhancing poorest groups’ access to housing finance, by reviewing the mortgage finance system to find innovative subsidy schemes. As for phasing, there is a consensus that construction of affordable units should be concurrent with market rate housing, because requiring it to precede market-rate units, as applied in several worldwide experiences, will be very difficult to impose on developers. To ensure fulfillment of the goal of the social inclusion goal, application of opt outs should be limited to off-site construction, and only for smaller projects or when on-site construction is proven to be infeasible. It should be hence based upon careful consideration of pros and cons, and a detailed economic analysis. If allowed, provisions must be put in place to assure concurrent construction of affordable units in adequate locations, preferably in the same area. Program should enact mechanisms, like deed restrictions, to sustain affordability for long periods.

5.2.4. Management and monitoring approach

As management and monitoring constitute critical challenges for most Egyptian local authorities, appropriate administrative levers should be put in place. To ensure enforcement and proper maintenance and monitoring, it is recommended to establish public-private partnership schemes between the developer, local authority, and an active local non-governmental organization (Mekawy, 2013).
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6. Conclusion

Effective inclusionary programs achieve both significant numbers of affordable housing units and socioeconomically integrated communities. A program’s efficacy can be triggered through several factors including local market conditions, its interrelation with other policy contexts, and the main features of its interactive variables. Hence, these variables should be of critical concern when designing a program, as they are not only reflected on the number of produced affordable units and their relation with market-rate units, but also on eligible beneficiaries, how they acquire the units and the duration they are available for them. As those design choices can alleviate a program’s potential to improve the lives of low- and middle-income households, they should reflect local policy goals and prevailing economic and social conditions, as well as being built upon a deep analysis of local housing market conditions.

Inclusionary housing programs have high prospects in Egypt, especially in strong housing markets. All interviewed developers are already participating in different forms of community service including housing development and renewal of deteriorated urban areas. They are also willing to take a role in low income housing provision outside their high-income development projects, and to integrate middle-income within these projects.
The proposed guidelines for designing inclusionary housing programs in Egypt should be recurrently reviewed, and the development of context-specific programs should be preceded by in-depth analysis for prevailing local conditions. Future research could consider the competence of application of the approach in large scale industrial and touristic projects.

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