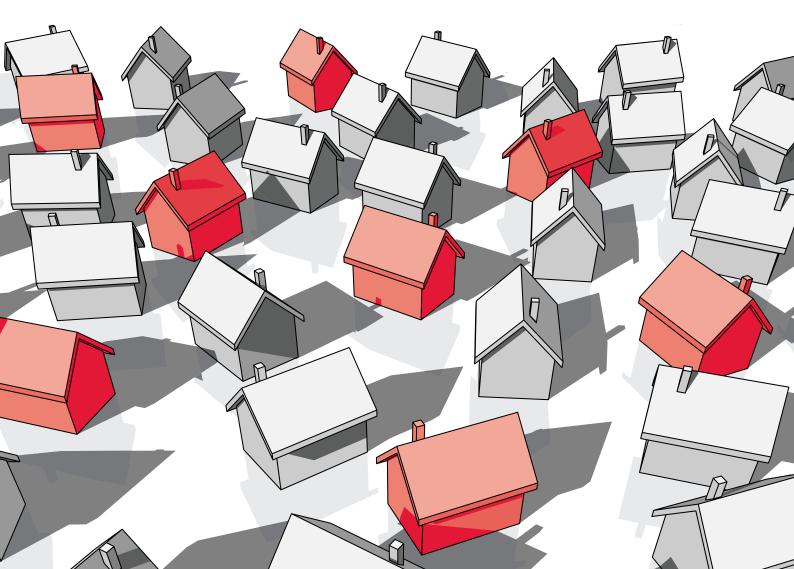


Why Affordable Housing Matters?



Key Findings

While there is currently a significant over-supply of upscale or luxury housing in many markets, there remains a shortage of more than 3.5 million affordable dwellings across the major markets within MENA.

The demand for affordable housing is forecast to increase ahead of the supply in all the major markets over the next 5 years, resulting in a widening of the current gap. Delivering sufficient product to meet this growing need constitutes one of the major opportunities for the real estate industry in the region over the next few years.

While the largest current shortfall is concentrated in four markets, Egypt (1,500,000), Iraq (1,000,000), Morocco (600,000) and Saudi Arabia (400,000), there is a shortage in all of the markets studied, with the GCC markets of UAE, Bahrain and Oman also requiring more dwellings in this sector of the market.

A number of factors have contributed to the inability of the development industry to provide a sufficient supply of affordable housing. These include:

- High land values / lack of access to affordable land.
- High capital costs associated with 'big ticket' infrastructure (eg: electricity, sewerage).
- Costs associated with providing multi modal public transport networks to remote locations.
- Low financial returns compared to other sectors of the residential market.
- Limited access to finance among low income households due to immature mortgage market.
- restricted economies of scale.

More active government involvement is an essential component of any strategy to provide additional affordable housing as the private sector is unlikely to provide sufficient product without further assistance. This involvement needs to extend across a broad range of policy areas including the following:

- Promotion of a more active mortgage sector and other initiatives to extend the availability of low cost long term housing finance.
- Actively involving local communities and placing greater emphasis on urban design and community building to avoid the development of residential ghettos.
- Adopting a holistic approach to urban planning and the widening of the urban planning frameworks to areas beyond the periphery of the current metropolitan area.

With the exception of Morocco, the experience of public private partnerships (PPP's) has not been encouraging to date. There is a need to rethink the nature of these agreements to attract further interest in affordable housing from the development industry.

The tendency for most affordable housing projects to be located in peripheral and relatively remote locations (to benefit from lower land values), has resulted in problems of higher social and infrastructure costs. Consideration should be given to providing more affordable housing in central locations that provide residents with better access to existing urban infrastructure.

While affordable housing initiatives need to be sensitive to local cultural Problems with acceptance of system building techniques have considerations, there is scope to reduce costs and improve the quality of projects through more innovative planning and design solutions, including strategies to increase density by reducing the size of villa plots.

> Given the need to achieve economies of scale, the affordable housing sector has the potential to make greater use of modular and system building technologies.

Insufficient attention has been paid to building cohesive communities. Most low income housing projects have to date focussed on building apartments or villas (the physical real estate), rather than creating attractive liveable environments for cohesive and stable communities.

With increased focus on sustainability across all sectors of the real estate market in MENA, there are opportunities for the greater incorporation of more ESS (Environmental Sustainable Solutions) in the affordable housing sector. A combination of passive design and active technological solutions can achieve major savings in resource use and make projects more sustainable.

Few countries have yet adopted green building codes in this sector (with Abu Dhabi being a notable exception). As more codes and regulations are introduced, the inclusion of ESS will move from being an option to a necessity.

Defining Affordable Housing

While there is a significant over-supply of upscale or luxury housing in many markets across the MENA region, there remains a lack of more affordable housing. This is one of the underlying causes of the social unrest and the resulting political turmoil that has spread across the MENA region during the Arab Spring of 2011. Meeting the increasing need for affordable housing is therefore a major challenge facing governments across the region.

There is no single definition of what comprises 'affordable housing' within the MENA region, with the nature and composition of this sector varying significantly between markets. A recent RICS report on the UK market provides a generic definition which applies equally to the MENA region. 'Affordable housing is that provided to those whose needs are not met by the open market' (Ref RICS Practice Standard Guidance Notes (GN59) 2010).

Chart 1: Components of affordable housing sector



Source: Jones Lang LaSalle

There are two broad components of the affordable housing market in the MENA region, namely:

Social Housing for those with no ability to pay market rates. In some parts of the MENA region (particularly in the GCC countries), the largest component of this market comprises expatriate manual workers, whose accommodation (in the form of staff accommodation and labour camps) is usually provided by their employer.

The other major component of the social housing market are low income nationals, with this sector being of particular importance in Morocco, Egypt and Iraq.

Low Cost Housing for those with limited incomes who are unable to afford market prices or rentals. Unlike the expatriate social housing sector, which is dominated by single working age males, this sector (which may also be known as 'intermediate housing') comprises many families earning below average incomes. There are two further major dimensions to the affordable housing market in MENA.

Locals vs Expats

Many residential markets across the region have effectively two quite different markets, one for local or national housing (which is often provided by the government) and one for expatriates (which has been largely the preserve of the private sector in most countries).

This same duality also applies to the affordable housing sector. In markets such as the UAE, the shortage of affordable housing disproportionately impacts expatriates (as the government provides free land and low cost finance to assist Emirati families). The problem facing mid to low income expatriate families is particularly acute in Abu Dhabi, where the high cost of accommodation resulted in an average sharing ratio (number of families per dwelling) of 1.9: 1 in 2010.

In other markets (eg: Morocco, Egypt, Saudi Arabia and Bahrain), the shortage of affordable housing is primarily centred on the needs of the local population. Almost all of the 1,000,000 affordable housing units that the Egyptian Ministry of Housing is seeking to provide, will be targeted at low income Egyptian families, with the same being true of the affordable housing programs of the Saudi, Moroccan and Bahraini governments.

Rental vs Sale

Affordable housing in MENA is focussed on dwellings available for rent rather than for sale. The relative importance of these two sectors (rent vs sale) varies between countries and between the national and expatriate sectors of the market, with significant restrictions on foreign ownership of property remaining in many jurisdictions.

Low income households typically do not have access to mortgages or other long term sources of housing finance and are therefore effectively confined to the rental sector in most markets. Even in relatively mature markets such as the UAE, a minimum monthly household income of around AED 20,000 (USD 5,500) is required to access housing finance in the form of bank loans and mortgages, while 45% of households in the UAE currently earn less than AED 15,000 (USD 4,100).

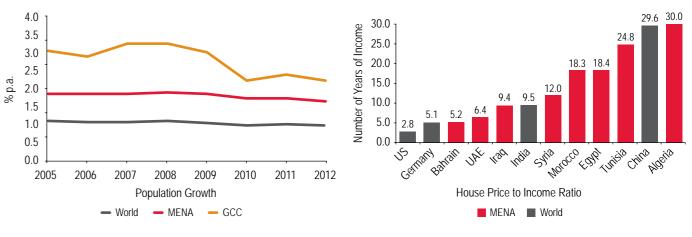
The preference to rent is not entirely driven by income levels as many expatriates prefer to rent, even when they can afford to purchase. Home ownership levels tend to be lower in those markets with high levels of expatriates. This trend is epitomised in Qatar – which has the highest level of expats in MENA (at over 80%) and one of the lowest levels of home ownership, at just 22%.

Drivers of Demand

The primary driver of housing demand in any market is the rate of household formation, which is itself determined by two major factors, population growth and age structure. The MENA region is experiencing population growth around twice the global average and has a young overall age profile. This combination of factors is driving the increased need for housing across the region.

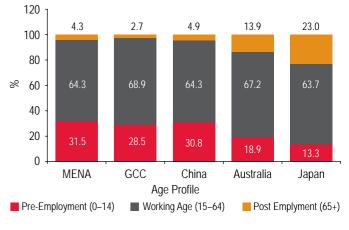
Housing affordability (the ratio between income levels and house prices) is another important indicator of demand for affordable housing. Data drawn from multiple sources suggests this ratio varies significantly across MENA. In Bahrain and the UAE, average house prices are between 5 and 6 times average annual salaries, while markets in North Africa such as Algeria and Tunisia have some of the least affordable housing in the world, with the average house in Algeria requiring 30 times the average annual salary.

Chart 2: Population growth is the primary demographic driver



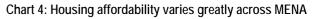
Source: IHS Global Insights







Source: IHS Global Insights



Source: Various

Challenges to Providing Sufficient Affordable Housing

The failure of the development industry to provide sufficient levels of affordable housing in the MENA region can be explained by a number of constraints and challenges.

Land and Infrastructure Costs

The inability to acquire land at a price allowing developers to deliver housing at an affordable price remains one of the major challenges. This is a particular problem in those markets (eg: UAE and KSA) subject to significant levels of speculation and trading in land, which has increased prices to unsustainable levels.

A first order approximation is that land costs should not exceed 30% of total development costs. Affordable housing is particularly susceptible to land pricing, and land cost burdens have resulted in many projects being in isolated or otherwise marginal locations. This works against the integration of affordable housing projects into the wider community and can lead to significant additional costs being incurred for utilities, transportation infrastructure, social services and community amenities.

Infrastructure costs per dwelling increase with distance from the centre of the city. Whole project costing and financing models should therefore form an integral part of any comprehensive low or middle income housing policy. By highlighting the full extent of project costs these approaches may cause a re-evaluation of the true burden of land costs and lead to more centrally located projects able to benefit from existing infrastructure and services.

Construction Issues

Given the scale of demand, the shortage of affordable housing cannot be met one unit at a time. There are clear economic advantages to undertaking large scale, high density developments that benefit from shared construction processes and efficient infrastructure provision. The adoption of tried and tested 'system building' approaches can significantly increase the speed and improve the efficiency of large scale housing developments.

While there is definitely scope to make further use of system building technology and modular approaches to affordable housing projects in the MENA region, there are two major challenges that need to be addressed and successfully overcome:

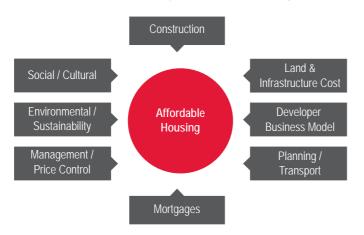
- Large high-density developments of monolithic low-quality construction with minimal amenities run the risk of creating unattractive "ghettos" of dissatisfied low income residents.
- In markets with low cost labour, more traditional construction methods may be relatively attractive, limiting the applicability of systems approaches and other building technologies.

Mortgages and Housing Finance

There remains limited access to long term housing finance for low to middle income earners in the MENA region, with few countries having an active private mortgage market. This has contributed to the current situation where most of the demand for affordable housing is focussed on rental rather than ownership.

The importance of providing greater access to long term housing finance has been recognised by governments across the region with initiatives to expand such funding being announced in the UAE, KSA, Egypt and elsewhere. The successful expansion of this sector of local financial markets will have an important impact on the ability to satisfy the need for affordable housing across the region.

Chart 5: Constraints on Supply of Affordable Housing



Source: Jones Lang LaSalle

Developers Business Models

The predominant business model for the development of residential real estate in the region over the past few years has been based on 'off plan sales'. This has resulted in a situation where the highest returns to developers were realised from the supply of up- market residential units sold to investors for far higher prices than low income families can afford.

The perception that 'high end resulted in highest returns' has been challenged by the collapse of the investment market across the region since 2008 and the inability to sell more units into an increasingly oversupplied market, as evidenced by the increased number of unsold (and often) incomplete high end projects. This has resulted in a shift from 'luxury' or 'high end' projects to those that are more affordable to potential end users.

There is an increasing recognition that the affordable sector can provide strong, sustainable financial returns. A good example of this trend is Addoha (Morocco's largest listed developer) which has produced very strong financial returns from its focus on the low to middle income sector. The ability to convert the housing needs of low to middle income earners into a financially attractive market niche is likely to form an increasingly common characteristic of successful real estate developers across the region over the next 5 years.

Social and Cultural Factors

The Affordable Housing Institute (AHI) recognises that cost considerations in the provision of affordable housing result in three major social challenges that need to be addressed:

- Relegating affordable housing to isolated and remote areas, where land is cheap, negatively impacts the quality of life of its residents. Like other families, low and moderate income families aspire to housing with access to office and commercial districts, good schools, social services, and a range of transportation options. The long commutes associated with projects in more remote locations also decreases productivity and contributes to greater traffic congestion.
- 2. Many affordable housing developments have delivered uniform products catering to families of a similar socio economic profile, which reduces long term social cohesion and the ability to create sustainable communities. As a result, families with rising incomes or growing families are forced to move out of the community and seniors have to leave their family and friends to downsize. The diminished presence of long term residents in such developments may undermine the sense of community.
- 3. The financial motivation to cut design and construction costs may result in a lack of supporting facilities and the development of substandard housing. The experience of other countries, including the US and the UK, has shown a connection between poorly designed and built housing and problems such as vandalism, rubbish and graffiti. The limited resources typically available for the development of affordable housing projects demands creativity from developers and designers to create attractive liveable communities for the lowest cost.

Larger households and privacy concerns have resulted in specific cultural constraints in some MENA markets, such as the strong preference for villas rather than apartments among locals in Saudi Arabia.

Sustainability in Affordable Housing

There is a growing awareness of the importance of environmental factors in the affordable housing sector of the market. This will require greater consideration being given to the delivery of quality living environments through the integration of buildings, community, natural and economic systems:

- Due to more efficient use of space and smaller units, affordable housing is by nature more sustainable.
- Consideration should be given to quality environmental management throughout the life of the project, not just the initial design and construction phase.
- Greater use of passive design optimisation rather than more active mechanical and renewable systems.
- Education and training of residents and building managers to reduce energy and water use and minimise waste production is key to achieving sustainable objectives while minimising costs.
- Site and energy optimisation; water conservation; environmentally preferable products; optimisation of operation and maintenance practices.

Green building codes are being developed in a number of markets across the region. Among the most advanced of these is Estidama in Abu Dhabi. This program (named after the Arabic word for sustainability) aims to create more sustainable communities, through initiatives such as the Pearl Rating System, which will transform the way communities and buildings are designed, constructed and operated.

Management and Price Controls

Higher standards of property and asset management (PAMS) will be an increasingly important requirement for all sectors of the real estate industry across MENA over the next few years. As the market moves from its previous focus on development (asset creation), the quality of the ongoing asset management will play a major role in distinguishing between successful and unsuccessful projects.

The need for high quality estate and property management is particularly relevant in the affordable housing sector due to the large scale of such projects. Overseas experience has shown that the physical quality and financial value of affordable housing projects will deteriorate rapidly over a relatively short time frame (5–10 years) unless sufficient attention is paid to the physical upkeep of public areas and facilities.

Another ongoing management challenge is how to ensure that affordable housing projects remain affordable into the future. Earlier projects in MENA (such as the Khalifa Committee housing programme in Abu Dhabi) have failed to remain affordable over time due to the lack of effective mechanisms for controlling prices / rents in the secondary market. Original purchasers have benefitted by sub-letting or on-selling properties at higher prices as market levels have increased, thereby making these units less affordable over time.

Planning and Transport Constraints

Many of the countries across MENA do not have an effective urban planning system in place. This imposes additional risks and uncertainty on any developer, as they have little or no clarity about what will be developed on adjacent plots and there are few controls to prevent excess and wasteful competition.

Even where urban planning systems are in place, they often do not extend beyond the boundaries of the current metropolitan area. Given that many of the sites identified for affordable housing are located beyond the confines of the existing built up area of the city, they are often not covered by these plans.

There is also a lack of coordination between land use planning and the provision of transport infrastructure in many countries across the region. This imposes costs and constraints on projects not well serviced by transport networks. This will be a particular issue for affordable housing projects where a lower proportion of residents have access to private cars, thereby requiring a greater mix of different transport options (a multi modal solution).

Quantifying the Shortfall

Demand

The demand for affordable housing has been calculated from an analysis of income levels in selected markets across MENA. The size and composition of the 'low income' sector of the market, varies between markets as summarised in the table below:

The total population of these 7 countries (as at 2010) was over 185 million, with almost 85 million (45%) of this total in Egypt. The other major population centres are Morocco, Iraq and KSA, which together account for another 49% of the total population. Not surprisingly it is these four countries that offer the greatest opportunities for affordable housing.

There are around 26.8 million low income households, comprising 72% of the total of 37.6 million households across the 7 major MENA markets covered in this report. The percentage of households within the 'low income' definition varies from 43% in the UAE, to over 80% in Egypt and Bahrain.

Supply

To calculate the supply of 'affordable housing' in each market, we have made assumptions relating to how much of the current and future supply could be afforded by low income families spending 35% of their household income on housing.

This assessment includes both projects available for sale as well as those available for lease, as a significant percentage of low income households in MENA are in the rental rather than the ownership sector of the market.

Shortfall

There is currently a shortage of more than 3.5 million dwellings of affordable housing in all the markets considered in this report. The extent of this shortfall varies from more than 1.5 million units in MENA's most populous market (Egypt), to just 15,000 units in the Sultanate of Oman.

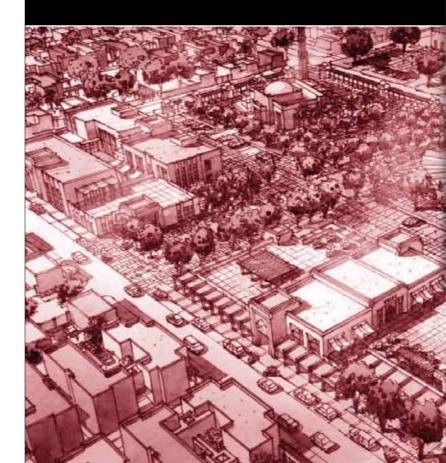
This shortage is expected to increase over the next few years as the supply of affordable housing fails to keep pace with the increased demand.

Table 1: Low Income Households (MENA) – 2010					
Country	Population	Monthly Income Up To (Local Currency)	Monthly Income Up To (USD)	% of Total Households	Number of Low Income Households
Egypt	84,500,000	2,000 EGP	336	84%	16,900,000
Могоссо	32,500,000	4481 MAD	566	55%	3,400,000
Iraq	32,100,000	499,000 IQD	428	62%	2,900,000
KSA	27,100,000	5,000 SAR	1,333	58%	2,700,000
UAE	6,000,000	9,000 AED	2,451	43%	390,000
Oman	3,000,000	450 OR	1,226	73%	300,000
Bahrain	1,200,000	399 BD	1,059	86%	230,000

Source: Jones Lang LaSalle based on official income distribution data in each country

The issue of affordable housing takes on a different perspective in different markets across the region and there is therefore no 'one size fits all' solution that can be applied.

- Egypt. Given its large population (circa 85 million) and relatively low income levels (over 80% of households are in the low income sector), it is not surprising that the highest current shortfall of affordable housing in the region is in Egypt. This market provides the greatest potential opportunity for the development industry with a current need for an additional 1.5 million affordable housing units across the country. The majority of those seeking affordable housing are low income local citizens, with only low levels of expatriate demand.
- Iraq. The large population base (circa 33 million) and the shortage
 of investment in the real estate sector over the past 30 years have
 combined to create a major housing shortage across Iraq. A recent
 government study (undertaken in association with the UN Habitat)
 quantifies this shortage at around 2 million units and we estimate
 that over 1 million of these are in the affordable housing sector.
- Morocco has been addressing the need for more affordable housing for many years and has one of the most mature affordable housing sectors in MENA. Despite the introduction of a broad range of government initiatives to encourage private sector involvement in this sector (including the provision of subsidised land and tax breaks to developers), there are still significant opportunities for further investment, with a current shortage of around 600,000 affordable dwellings.



- Saudi Arabia has recognised the need to provide more affordable housing as indicated by the recent (SAR 500 billion) financial stimulus package announced by King Abdullah. We estimate the current shortage to be around 400,000 units across the country, with the gap increasing in future years as the rate of household formation continues to exceed levels of proposed supply.
- GCC (excluding Saudi Arabia). While the shortage of affordable housing is lower across the rest of the GCC, there remain opportunities in each of the markets, with a current shortage of around 40,000 in Bahrain, 20,000 in the UAE and 15,000 in Oman. This shortage is focussed on the needs of the local population (nationals) in Oman and Bahrain, while the greatest need in the UAE is for more affordable housing for low income expatriates.
- United Arab Emirates. The shortage of affordable housing in the UAE is focussed on the Abu Dhabi metropolitan area. There has been a major adjustment in pricing in Dubai in recent years which has effectively solved the shortage of affordable housing, while there is also a sufficient supply of affordable housing in the rural parts of Abu Dhabi Emirate and in the Northern Emirates (Sharjah, Um Al Quwain, Fujairah, Ajman and Ras Al Khaimah).

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Country	Total Supply	Total Demand	Shortage
Egypt	15,400,000	16,900,000	1,500,000
Iraq	1,900,000	2,900,000	1,000,000
Morocco	2,800,000	3,400,000	600,000
KSA	2,300,000	2,700,000	400,000
Bahrain	190,000	230,000	40,000
UAE	370,000	390,000	20,000
Oman	285,000	300,000	15,000
Total	23,245,000	26,820,000	3,575,000

Table 2: Shortage of Affordable Housing (2010)

Source: Jones Lang LaSalle

Potential Solutions

Public Private Partnerships (PPP Arrangements)

In Morocco, the government and private developers are working closely together to address the need for more affordable housing. Five years ago, the government launched a programme aimed at reducing the number of shanty towns and substandard dwellings and to ease the housing shortage by 25% by 2012. Access to land was identified as a major constraint and the government has therefore offered over 3,800 hectares of land at a reduced price to developers to construct around 200,000 housing units. To qualify for this subsidised land, developers must agree to sell flats for below 140,000 Moroccan dirhams on one third of the allocated land and for 200,000 dirhams on another third. On the final third of the land, developers are allowed to build other types of properties.

Such arrangements can be financially attractive to developers. Addoha is Morocco's largest developer and the first to be listed on the Casablanca stock exchange since 2006. Addoha has achieved strong financial returns (with revenues up 57% in 2010) based on a business model with almost 80% of its projects targeting low and mid-income housing.

There are a number of factors that explain why these PPP arrangements have worked well in Morocco, these include the ability of the government to offer subsidised land and tax breaks to make affordable housing projects more attractive to private developers. In other markets, the government has less scope (particularly in relation to tax breaks) and this has reduced the interest in this sector from private developers.

The experience of PPP's in Turkey provides some useful potential lessons for the provision of affordable housing in markets in the MENA region.

The Turkish Experience

The Turkish government has utilised a form of Public Private Partnership (PPP) to deliver mass housing projects through TOKI (Housing Development Administration of Turkey). As part of its objective of providing 'adequate shelter for all within a liveable environment', TOKI issues tenders for the disposal of government owned land for mass housing projects. Private developers are invited to submit plans indicating how many dwellings they propose to provide and what proportion of these they are willing to provide back to TOKI for the government to rent or sell to those in need of public housing. This approach avoids the need for the developer to purchase the land (thereby improving their cash flow situation), with title on the portion of the site remaining in private ownership being transferred to the developer upon delivery of the agreed number of units to TOKI.

This approach allows the private sector to develop mass housing for the government and avoids the problems of land speculation and the constraint that high land values have imposed in delivering affordable public housing in other markets. This approach is well accepted by developers and TOKI has delivered more than 500,000 housing units in over 2,000 projects across Turkey over the past 25 years. TOKI has the authorisation to acquire and dispose of all surplus government land on which it can change the zoning. This has proved to be a successful method of delivering mass market housing that could be adopted and applied in other markets across MENA where the government has control of large areas of land.

Design and Planning Strategies

To avoid the social problems associated with mass housing projects in
other regions, it is important to ensure affordable housing projects
create attractive liveable communities and not just low cost housing
estates in inaccessible outer urban locations. This requires attention to
the following principles of good urban design and planning:Despite the challenges to the more widespread use of system building
technologies in the region, there remain opportunities for more
mechanised and modular technologies including precast solutions.
These could result in savings of up to 20% of construction costs, while
still providing a standard of accommodation that is culturally acceptable.

- Providing a range of housing styles / sizes in order to create a more mixed / balanced community.
- Provision of sufficient facilities (schools, retail, F&B, etc) to support the local community. There has been a shift of attention to smaller, community based retail centres across MENA markets and this model could work well within affordable housing communities.
- Greater attention to the level and design of open space / public areas.
- Recognition that low income families have less access to private transport and the design of affordable housing projects should therefore incorporate lower levels of parking provision and greater levels of walking / cycling and public transport.

Reduced Block Size

Given the constraints imposed by high land values, strategies to reduce the size of individual villa blocks represents an important potential tool in increasing the supply of affordable housing.

Research by X Architects has shown that the housing preferences of Emirati families can be satisfied while at the same time achieving significant savings in average villa blocks. The use of innovative planning principles and more traditional architectural designs, allows attractive liveable local housing communities to be delivered using a standard villa block of between 600 and 625 sq m. This represents a saving of around 40% in land area, compared to the current standard block of 1,050 sq m.



Lower Unit Costs Through System Building Solutions

More Central Locations

To address the problems of high infrastructure costs and social exclusion resulting from locating affordable housing projects in remote locations beyond the urban fringe, consideration should be given to delivering more affordable dwellings on sites closer to existing urban centres where transport links and service provisions are readily available and commuting to and from work would be more efficient.

Community Building

Evidence from affordable housing projects in more mature markets outside the region, clearly points to the importance of creating communities and not just physical developments. This represents a particular challenge for those MENA locations with a high proportion of expatriate workers in the low income sector of the housing market.

Obtaining greater 'buy in' from both owners and residents in decisions about the management and upkeep of the development will help create a sense of community and pride in the project. Strategies for achieving this could include the following:

- Internet Sites
- Architectural Renderings
- Virtual Computer Models
- Community Workshops
- Community Advisory Groups
- Design Charrettes for subsequent stages of development

Increased Access to Housing Finance

This is a critical component to providing more affordable housing across the region as there is currently a mismatch between the latent demand (number of households) and their ability to pay (even at subsidised prices).

Providing increased access to long term housing finance (through conventional mortgage or sharia compliant products) therefore forms a key part of the overall solution required across the region. In some markets this is being promoted through government entities (eg: the Real Estate Development Fund in Saudi Arabia), while in other markets (eg: UAE) government controlled banks such as Emirates NBD and Dubai Islamic Bank have been refinanced and are now able to inject increased levels of liquidity into the residential market.

Control Access and Prices in the Secondary Market

There is an increasing recognition of the importance of ensuring that housing is not only affordable upon its initial sale (primary market), but remains affordable over time (in the secondary market). A number of strategies have been used across the region to meet this objective, these include:

- Providing preferred access to Key Workers (tenant selection policies).
- Controls on the prices / rents that units can be subsequently offered to the market.

However, these controls have proved difficult to enforce and this remains one of the major challenges to be overcome in providing more affordable housing.

Delivering Sustainable Affordable Housing

KEO have identified the following key components to a successful sustainability strategy for affordable housing projects.

- Management and coordination of planning, design, construction and operations to improve sustainable performance and efficient use of resources.
- 2. Ecology of the site to enhance the natural environment.
- Provision of access to more sustainable modes of transport (eg: walking, bicycles, public transport).
- 4. Water efficiency through exploring water consumption, reclamation, management and efficient usage.
- Efficient energy use, reduction in contribution to overall CO₂ emissions and implementation of renewable energy generation.
- Indoor environmental quality including indoor lighting, thermal comfort, indoor air quality, ventilation, acoustics, handicapped accessibility and fire safety.
- Minimise the potential causes of environmental impact from air emissions, wastewater discharges, noise, heat and light.
- 8. Minimise unnecessary use of materials and incorporate those from renewable sources.
- 9. Incorporate design elements which improve waste management.



Affordable Housing Across MENA

Egypt



Egypt

There is an acknowledged lack of affordable housing in Egypt, where most private developments have targeted the luxury sector due to the higher margins available. This situation is now changing rapidly because of:

- Government recognition of the social consequences of not providing sufficient affordable housing.
- Lower returns now available from the luxury market that has moved into excess supply.

The interim military government has recognised the need to provide more affordable housing and the Ministry of Housing has announced plans to construct one million new residential units across 22 different cities throughout Egypt. These units (with an average size of 63 sq m) are to be provided for those currently priced out of the private housing market. The proposal is for the government to provide the land and for the private sector to undertake the construction for an agreed price. The average construction cost of each unit is estimated to be EGP 60,000. While details of the sales prices have not been released, the likely pricing of between EGP 70,000 and EGP 80,000 is well below the price of similar sized units in the private market.

Definition

 Housing for the 84% of Egyptian households with a monthly income below EGP 2,000 (USD 340).

Characteristics of market

• Almost exclusively an Egyptian nationals issue – with very limited involvement of expatriates in the Egyptian residential market.

Key Challenges

- Attracting interest from private developers, with few major developers targeting affordable sector (except Orascom).
- Poor quality of many affordable projects due to limited management / maintenance.
- Lack of access to housing finance for low income segment with underdeveloped mortgage market and a lack of institutional / bank finance for developers.
- Lack of government initiatives or interest in this sector, although this is now changing as result of the recent revolution.
- Requires government to provide free or subsidised land which is now being challenged in light of corruption scandals concerning major developers associated with previous government.

- Minimal support from the government and municipalities for transport and other infrastructure increases costs imposed on developers.
- Restrictions on foreign developers will limit supply of affordable housing.
- Limited protection for intellectual property and significant duties on imported technology will constrain activity.
- Construction industry remains labour intensive and is not well placed to introduce system building technologies required to generate sufficient supply in short timeframe.

Iraq



Iraq

The prolonged war and subsequent period of under investment have led to a significant undersupply across all sectors of the residential market in Iraq. The government has recognised the problem and created the National Investment Commission of Iraq (NIC) with a mandate to construct 1 million economic housing units for Iraqi citizens across the country.

Definition

 Housing for the 62% of households in Iraq that currently earn less than IQD 499,000 (USD 430) per month.

Characteristics of market

- Almost exclusively local population with few low income expatriate workers in Iraq.
- Demand is split almost evenly between Baghdad and the rest of the country.
- Most demand from low income families is accommodated in apartments, with little interest or demand for villas.

Key Challenges

- Current problems with electricity require the creation of private electricity providers for certain developments.
- Lack of experienced local developers capable of creating, managing and maintaining large scale projects.
- No experience of system building technologies in Iraq.

Lessons for other markets

- Investors can qualify for guarantees from the Ministry of Finance to offset construction costs.
- Creation of Escrow accounts through the Trade Bank of Iraq.
- REDCO a consortium of Iraqi banks (including the Trade Bank of Iraq) will provide guarantees to purchase completed units in selected projects.
- The government has agreed to fund all off-site and a portion of the on-site infrastructure within affordable housing projects.

Morocco



Morocco

Morocco is the most mature affordable housing market in MENA, with the government having applied experience from across Europe in providing social housing for low income local families for many years.

Definition

 The Moroccan government defines two types of affordable housing units: Low Real Estate Value (LREV) housing with a capped price at MAD 140,000 (around USD 17,500) and social housing with a price capped at MAD 250,000 (around USD 31,000).

Characteristics of market

- Social housing program, driven primarily by social needs.
- Targeted at low income locals (those earning below MAD 4,481 (USD 566 per month) not expatriates.
- Predominantly apartments rather than villas (typically 3–5 levels).
- Large scale projects in peripheral locations, with the size of projects (up to 10,000 units).
- Government has typically provided the land while the development is undertaken by a small number of the major private developers (top 5 developers provide over 80% of supply).
- Recognition that tax incentives are required to attract private developers.

Key Challenges

- Quantity providing sufficient product to match fast growing demand.
- · Quality poor quality with lack of facilities.
- Remote locations have benefited from cheap land costs but involved high infrastructure costs.
- Delivering product at sufficiently low cost.

- Tax breaks are required to attract interest from private developers.
- Widespread use of PPP's between government and private sector, but conditions not attractive enough to entice many private developers to enter this sector.
- Importance of providing finance / mortgages. Partnership between banks and the government to make lending more accessible to lower income families.
- Large scale projects to achieve maximum economies of scale.
- Project management and ongoing property management are vital factors in determining the success of developments.
- Quality control needs to be legally enforced. The Finance Law of 2010 forces developers to respect a set of minimum building standards within affordable housing projects.

Kingdom of Saudi Arabia NORTHERN BORDER AL JAWF TABUK HA'IL

Dammam/Al-Khobar AL QASIM AL MADINAH Riyadh 🛑 AR RIYAD МАККАН Jeddah EASTERN PROVINCE Makkah AL BAHAH ASIR NAJRAN IZAN

Barbar AL MINTAQUAH JIDD HAFS ASH SHAMALYAH 0 Úmm AL Jasrah an Na'san Karzakkan MADINAT Al Malikiyah HAMMAD Dar Kulayb Az Zallag) Al Wasmiyah

AL MINTAQAH

AL GHARBIYÀH

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Kingdom of Saudi Arabia (KSA)

The need to provide more affordable housing was one of the major aspects of the stimulus package announced by the King in March and April 2011 in response to the regional political and social unrest. This package includes a commitment to providing a further 500,000 affordable housing units across KSA

The major driver of demand is the young and fast growing population base, with an estimated 1,000,000 new households to be created across KSA by 2015 which will further exacerbate the current shortage.

Definition

 Housing aimed at the 58% of Saudi households with an average monthly income of below SAR 5,000 (USD 1,400).

Characteristics of market

- Strong cultural preference for villas over apartments (particularly in Riyadh).
- Shortage most acute for low income locals.
- No shortage of worker housing / labour camps in most areas of KSA but lack of options for low income expatriate families.

Key Challenges

- · Speculative nature of market has driven land prices to unaffordable levels.
- Many land parcels have already been granted to private developers, reducing government ability to provide free or subsidised land.
- Limited number of professional developers, with most residential development undertaken by micro builders.
- · Micro nature of market makes it hard to achieve economies of scale and meet required quantum.
- · Poorly developed mortgage market and further delays in mortgage law continue to limit access to housing finance.
- Fragmented nature of market and reliance upon labour intensive building technology also limits opportunities for system building.

Lessons for other markets

- Limited access to housing finance is a significant constraint.
- Need to promote professional developers capable of implementing system building techniques.
- Poorly developed legal / regulatory framework can constrain development of affordable housing.

Bahrain

Bahrain

In the years preceding the global financial crisis, real estate developers across the Kingdom of Bahrain focused on the luxury residential market. These included numerous villa developments around golf courses and high-rise residential towers on reclaimed islands just off the coast. This development belied the fact that over 86% of households in Bahrain currently earn less than BHD 400 (USD 1,050) per month.

Bahrain was one of the GCC countries hit hardest by the global financial crisis. The country had long been the regional financial hub, with international firms such as BNP Paribas, Investcorp, and Arcapita operating from Manama. Indeed, financial services comprised 23% of the 2007 GDP. In the ensuing years, discontent grew, particularly amongst the large Shia population. In response to the political and social unrest in Bahrain in early 2011, the GCC announced a ten year stimulus package of USD 10 billion to be spent on affordable housing, healthcare, education, and infrastructure.

Definition

 Housing aimed at the 86% of households earning less than BHD 400 per month (USD 1,050) per month.



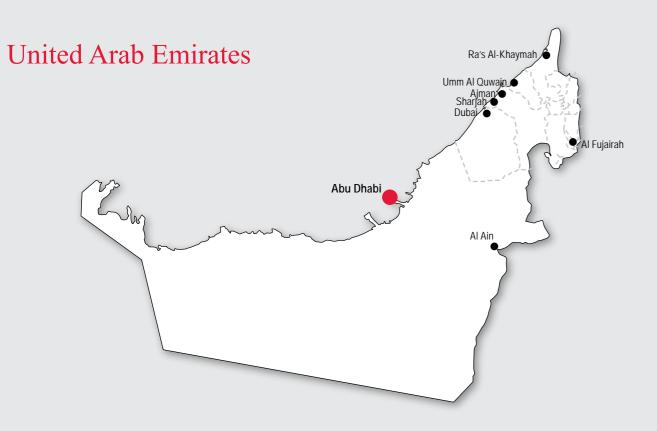
Characteristics of market

- The provision of "Social Housing" is almost exclusively a Bahraini nationals issue.
 - · Bahrainis prefer to live in villas or townhouses, rather than apartments.
 - · High land costs are prohibitively expensive for the "Affordable" market.
 - Demand for additional 40,000 units.
- Low-income expatriates in Bahrain are typically either labourers in the Aluminium, Oil & Gas or Construction industries or public servants in the Police or Military.
- In general, there is sufficient staff accommodation for expatriates but a shortage of low cost housing.

Key Challenges

- Limited mortgage market.
- Poor design and physical quality of the existing social housing schemes, paired with a lack of ongoing maintenance has resulted in a lack of market confidence.
- Existing social housing schemes do not have sufficient facilities or amenities.
- Limited expertise in developing pre-fabricated, low-cost housing.

- Government incentives, such as land, infrastructure provision are required to attract interest from private developers.
- Importance of partnering with bank / financial institutions to meet the funding needs of potential buyers.



United Arab Emirates (UAE)

There are two very distinct residential markets in the UAE, one for locals and one for expatriates.

Local Emirati families benefit from access to free land and heavily subsidised housing finance through projects such as:

- Mohammed Bin Rashid Housing Establishment (Dubai) provides free land and housing finance.
- Sheikh Zayed Housing Scheme (Abu Dhabi) Grants and Loans to a maximum of AED 500,000.
- RAK Saudi Housing Programme Allocates land plots for local housing projects.

The expatriate worker sector is divided between:

- Worker accommodation / staff housing provided by major employers.
- Low cost housing provided by the private sector in schemes such as International City and Discovery Gardens in Dubai.

Definition

• Housing for the 43% of households in the UAE that currently earn less than AED 9,000 (USD 2,450) per month.

Characteristics of market

- Two very distinct markets with subsidised housing for nationals and low cost market housing for expatriates.
- Plentiful supply of staff accommodation but shortage of low cost housing in most parts of the UAE especially Abu Dhabi.
- Market is resolving the shortfall in Dubai, with more supply now falling to affordable levels.

Key Challenges

- Well established mortgage market, with increasing levels of liquidity following the lack of funding available in 2009/10, but limited access to long term housing finance for low income households.
- Lack of institutional / bank finance to developers.
- Speculation in land market has pushed prices to unaffordable levels.

Lessons for other markets

- High acceptance of system building and other technologies required to achieve economies of scale.
- Rent control policies (such as that applied in Abu Dhabi) can distort markets and fail to protect those in greatest need.
- Service charges and cost of maintenance are critical issues in providing affordable housing.
- Innovative middle income housing policy in Abu Dhabi requires developers to allocate 25% of units in major projects as 'affordable housing'.
- Regulations and controls on secondary pricing and rentals are required to ensure affordable housing remains affordable over time.

Oman



Oman

While Oman has a relatively small population, a high percentage of households falls in the lower income category. Given the relatively low number of expatriates, affordable housing in Oman is primarily concerned with nationals.

Definition

 Housing for the 73% of Omani households that currently earn less than OR 450 (USD 1,220) per month.

Characteristics of market

- The government has recently placed much greater emphasis on projects with an affordable housing element in order to provide an incentives to this sector.
- Traditionally this segment of the market has largely been in the unorganised sector with individuals contracting out the construction of these units to small contracting firms, thereby not benefiting from economies of scale.
- Along with the current lack of new supply for this segment there is also a large amount of retirement supply adding to the gap between the demand and supply of affordable housing.
- With major improvements to the transport infrastructure connecting western parts of Muscat now completed there are plans for a number of affordable housing projects to be undertaken in these areas.

Key Challenges

- The market is still in a nascent stage and requires more involvement from larger developers in this sub-sector.
- Limited developer finance for affordable housing projects.
- Slower approval processes create a challenge for the entire residential market in Oman.
- Limited supply of land at affordable prices close to major cities significantly affects the overall cost that affordable housing projects can be priced at.

- Further regulation from the government (eg: to mandate developers to allocate minimum number of units as affordable housing) would provide impetus for this segment of the market.
- There is a need for more professionals in the areas of architecture, project management and construction as this is currently largely met through regional firms based in neighbouring countries.
- Further access to housing loans and development of the mortgage market which is currently under developed in Oman.



Real value in a changing world

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