



# AFFORDABLE HOUSING AND GER AREA REDEVELOPMENT IN ULAANBAATAR

September 2015



## **DISCLAIMER**



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# 1. INTRODUCTION

Mongolia's growth story is well known - large-scale investments in the extractive industries propelled it into the international spotlight, before a combination of policy missteps and unfavorable world conditions undermined its appeal and stalled its progress. Despite the current economic difficulties, though, the last five years have seen large-scale transformation within Mongolia in the political, social, and economic realms. The most visible and tangible manifestation of these transformations can be seen in the urban fabric of Ulaanbaatar, the nation's capital. On the back of the nation's mining boom, money poured into a relatively underdeveloped real estate sector, and since 2010 some 3,800,000 square metres of living area had been added to the city. Areas of the city which were once grassland now host luxury residential and commercial developments.

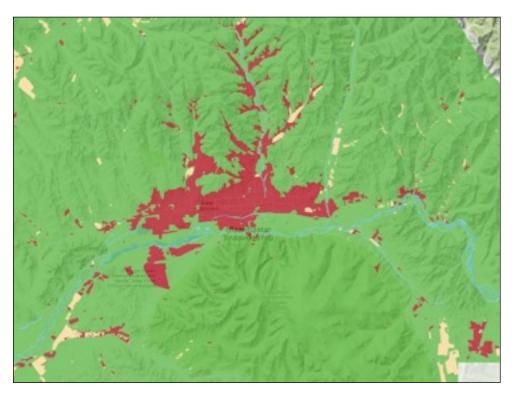


FIGURE 1A: BUILT AREA OF ULAANBAATAR (RED) IN 2000 (L) AND 2010 (R). SOURCE: WORLD BANK.

The Zaisan and Stadium Areas, located in the South of Ulaanbaatar, have been the main beneficiaries of this investment, and are now home to some of the most desirable developments projects in Mongolia. Indeed, for a number of structural reasons, real estate investment in Mongolia has primarily focused on mid-to-high end projects. Although new developments in this market segment continue to come online, the pace and scale of investment and development has slowed markedly. In part this is a function of the country's economic slowdown (GDP growth has gone from a high of 17.5% in 2011 to a predicted 3% for 2015)<sup>1</sup>, but it is also a function of the oversupply that currently affects the upper end residential, commercial, and office markets. Indeed, even if the global commodity prices were to rebound and Mongolia's economic growth to

<sup>&</sup>lt;sup>1</sup> "Mongolia: Economy." Accessed September 6, 2015. <a href="http://www.adb.org/countries/mongolia/economy">http://www.adb.org/countries/mongolia/economy</a>.

take off once more, a construction and development boom of the nature we have seen between 2010 and 2014 is unlikely to be repeated.

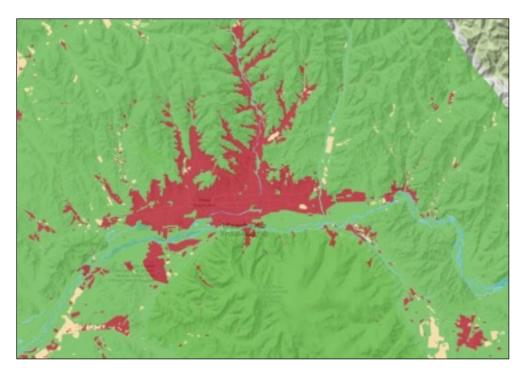


FIGURE 1B: BUILT AREA OF ULAANBAATAR (RED) IN 2000 (L) AND 2010 (R). SOURCE: WORLD BANK.

Despite this, there is considerable room for further development within Ulaanbaatar's real estate sector - as anyone who is familiar with the city's ger areas can attest to. Indeed with some 60% of the city's population living in such areas2 - without access to infrastructure and lacking urban services - their redevelopment will be the dominant discourse in the coming years and decades. Although many see redevelopment of the ger areas primarily as a means to tackle pollution and facilitate densification of the city, affordability will be a central element of these projects. With a majority of the city's households living in ger areas, and an oversupply of upper-end apartments persisting, it is clear that affordability is and will continue to be a critical issue - and one that cannot be separated from ger area redevelopment. Policymakers and developers have recognised this and efforts to address both are now underway. How these efforts proceed will have significant ramifications on the city's urban fabric and will shape Ulaanbaatar in a number of ways beyond that - spatially, socially, and economically.

The purpose of this paper is to provide an overview of affordable housing and redevelopment of the ger areas in Ulaanbaatar. While numerous projects are currently ongoing, very little information is available in the public domain, and what information there is tends to be piecemeal. This paper will look at the reasons behind the city's lack of affordable housing, as well as the policies and strategies that the Government has proposed to correct this. The main actors and ongoing projects will be examined, and consideration will be given to the challenges and failings associated with provision of affordable housing development in Ulaanbaatar today. Finally, some recommendations to increase the supply and improve the quality of affordable housing will be proffered. First, though, it is necessary to investigate affordable housing in general - how it is defined, why it is undersupplied, and the opportunity that it represents.

<sup>&</sup>lt;sup>2</sup> See *The Mongolian Real Estate Report 2015*. M.A.D. Investment Solutions, 2015.

# 2. AFFORDABLE HOUSING - INTERNATIONAL PERSPECTIVE

# 1. LOCAL DEFINITIONS, GLOBAL CHALLENGE

Access to housing, or lack thereof, has a wide range of social, economic, and political ramifications and, as a result, it is included in the United Nations Universal Declaration of Human Rights. Despite this universal recognition, though, affordable housing remains a relative term differing from country to country. Nevertheless, the definition of affordable housing usually includes a financial component (the share of income devoted to housing), a standard for what constitutes minimum socially acceptable housing, and a clear idea of what income groups are affected and at what income level households should receive assistance. The definition must also be flexible enough to accommodate a range of sizes, different tenure options (i.e. purchase vs. rental, or mixed modalities such as rent-to-buy), and affordability thresholds that take into account households of different sizes and income levels.

In Mongolia a definition of affordable housing was lacking until this year. This definition derives from a strategy adopted by the Government in cooperation with the Affordable Housing Institute,<sup>3</sup> a specialised not-for-profit institute based in America that helps develop policies and strategies relating to affordable housing. The strategy relies on the following definitions:

- Affordable housing means housing that provides long-term affordability to a target population.
- Affordability is a condition where a household's cost of living in a housing unit is not greater than the reasonable ability of the household to pay for the costs of occupancy. That reasonable ability is defined as using 30% of household monthly income to pay for housing-related costs.
- Target population refers to a group of households that has been identified as needing affordable housing. In Mongolia this population consists of households that earn up to 140% of the median monthly household income (MNT 870,600 per month).

As the above suggests, definitions of affordable housing vary from country to country depending on conditions. Despite these variances, though, it is a global problem. The McKinsey Global Institute, for example, estimates<sup>4</sup> that some 330 million households are currently affected by a lack of affordable housing and that this could grow to 440 million households by

<sup>3</sup> See "Affordable Housing Institute." Accessed September 6, 2015. <a href="http://www.affordablehousinginstitute.org/">http://www.affordablehousinginstitute.org/</a>.

<sup>&</sup>lt;sup>4</sup> A Blueprint for Addressing the Global Affordable Housing Challenge. McKinsey Global Institute, 2014.

2025 if current trends continue. Of these 440 million households, some 32 million would be in advanced economies - evidence of the global nature of the challenge. In terms of the financial impact of this problem, McKinsey estimate that the annual affordability gap - the amount of money needed to provide acceptable housing to low income citizens at a reasonable cost - could be as much as \$650 billion per year, or circa 1% of global GDP. The enormity of this figure underscores the need to consider innovative solutions, for this problem cannot be solved by government intervention alone. Nevertheless, with under-provision of affordable housing being a market failure with social, economic, and political impacts, it is clear that government will have to play a leading and active role in addressing the challenge. In doing so, a vision or definition of the problem must be formulated, the challenges recognised and appropriate tools and delivery mechanisms used.

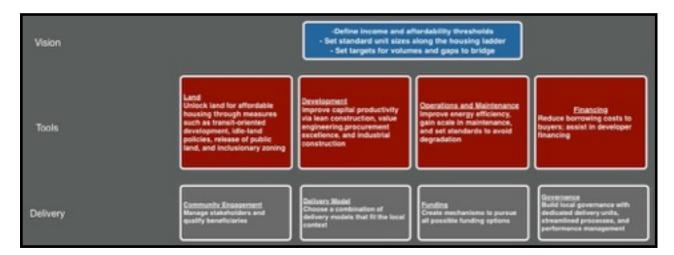


FIGURE 2: CONCEPTUAL FRAMEWORK FOR AFFORDABLE HOUSING DELIVERY. SOURCE: MCKINSEY GLOBAL INSTITUTE / M.A.D.

# 2. CHALLENGES OF SUPPLYING AFFORDABLE HOUSING

The international tendency for affordable housing to be undersupplied stems from a number of structural and regulatory issues. The particular structural constraints that affect Mongolia are discussed below in section 3, but it is first necessary to briefly examine the factors that work to limit supply. These fall into four broad categories:

## 1. LAND

Many cities have land use and zoning restrictions. While these are often designed to serve specific goals (e.g. preserving green space or protecting property values), they limit the land available for affordable development. Even without such restrictions, land is often used inefficiently. Public-owned land, for example, is often under-utilised, while inadequate cadastral registers also allow inefficient land-used to persist. As a result land is often unavailable for

affordable developments, and land that is allocated to such developments is often poorly located.

#### 2. CONSTRUCTION

In many countries the construction industry is either fragmented or affected by monopoly. The industry can also be affected by low productivity or use outdated or inefficient technologies. These factors result in a high cost structure that disincentivises production of affordable units.

## 3. OPERATIONS AND MAINTENANCE

In a similar manner to the construction industry, use of outdated technologies (e.g. energy inefficient materials) and maintenance standards can add significantly to the cost of operating and maintaining a building, further discouraging production of affordable housing.

## 4. FINANCING

On both the supply and demand sides, financing can serve to limit affordable housing supply. A lack of credit or prohibitive mortgage rates can depress demand, while high capital costs and inefficient bureaucracy can undercut supply.

To differing degrees, these factors explain why affordable housing is so undersupplied. They interact and combine with each other to raise the cost of supply, thereby disincentivising production of affordable units. The result is an imbalanced market that fails to address the housing needs of significant segments of the population. Through a combination of policy innovation, management tools, and efficient technologies these factors can be mitigated, but before outlining international best practice, it is first necessary to articulate the socioeconomic benefit that decent affordable housing represents and why its adequate supply represents such an opportunity for developing and developed countries alike.

## 3. THE AFFORDABLE HOUSING OPPORTUNITY

While it may seem obvious that affordable housing represents a social and economic good, the supply of which should be spurred, it is worth pausing to consider the various benefits and positive externalities that affordable housing can bring, as it is these which underpin the rationale for intervention. The most immediate effects of supplying affordable housing derive

from the economic impact of construction, but the more important long-term benefits are social or socioeconomic in nature. Broadly speaking, development of decent affordable housing can have the following positive effects:<sup>5</sup>

#### 1. ECONOMIC IMPACT

The large-scale infrastructure and construction projects necessary to supply affordable housing create employment in construction as well as putting money into circulation within the economy. In addition, the developments themselves create and sustain jobs after completion, for example in maintenance and operations. In the longer term, housing that is affordable frees up money that can be spent on other goods and services.

## 2. WORK OPPORTUNITIES

Formal affordable housing can boost access to employment and enhance work opportunities in a number of ways. Affordable housing increases residents ability to participate in the formal economy (for example by giving them a registered address), while legal title of property can be used to gain loans to start small businesses. At the same time, formal affordable housing is associated with gains in productivity. Dense and well-located developments, for example, allow residents to reduce time wasted on commuting or to benefit from network effects.

#### 3. SOCIAL INTEGRATION

With affordability being a relevant term, affordable housing developments can be designed so as to house mixed-income residents. This helps prevent social stratification and, in ethnically diverse societies, marginalisation. In Singapore, for example, affordable housing developments incorporate quotas for Malay, Indian, and Chinese households so as to prevent homogenous ethnic housing clusters growing up within the city.

# 4. SAFETY AND NEIGHBOURHOOD QUALITY

Well designed affordable housing developments are associated with lower crime rates and more lively and live-able neighbourhoods. Basic security features, frequented communal spaces, and street lighting help deter crime, while the incorporation of public amenities and retail facilities into the developments makes for neighbourhoods that residents enjoy living in.

<sup>&</sup>lt;sup>5</sup> Ibid.

#### 5. EDUCATION AND SKILLS

Decent affordable housing is associated with improved educational outcomes and attainment of a higher level of education. This results from a reduction of negative effects on learning that derive from factors such as overcrowding, financial overstretch, or the lack of a stable living space.

#### 6. HEALTH

In many cases the transition to affordable housing gives households access to infrastructure that is often lacking in unplanned or informal housing areas. Some of these, such as running water and mainline sewerage, directly help to improve health. Beyond this, affordable housing increases disposable income which can then be used to buy health insurance or healthcare. Finally, decent housing solutions are associated with improved psychological health, above all for children and adolescents.

Similarly to the factors that serve to limit the supply of affordable housing, the socioeconomic effects associated with its provision will vary from country to country depending on their idiosyncrasies. In all cases, though, it is important to recall that, despite the associated challenges, affordable housing represents a significant opportunity - above all for developing countries. The socioeconomic impacts that decent affordable housing can affect are both sustainable and cost-effective, and facilitating and incentivising its supply should be a priority for any government. The first step in this direction lies in understanding the available tools and strategies.

## 4. TOOLS FOR PROVIDING DECENT AFFORDABLE HOUSING

In outlining the tools for providing decent affordable housing, it is necessary to recall the challenges outlined in section 2.2 (land, construction, operations and maintenance, finance) as the tools fall into the same categories.

## 1. LAND

Finding appropriately located land is the most important step in developing affordable housing. Poorly-placed projects will be unable to achieve positive social and economic impacts regardless of construction quality, management, and maintenance. Families must have access to employment opportunities, transport, and services. Unlocking appropriate urban land for

affordable housing is therefore of critical importance, and a number of mechanisms can be employed to do so.

## 1. Transit-Oriented Development

Linking development to public transport and transit routes helps improve labour mobility and can potentially help fund both affordable housing and transportation development. Hong Kong has proved a leader in this regard, closely aligning transportation and affordable housing policies, but the benefits of such an approach have been recognised worldwide. London's ongoing cross-rail project is the latest example of transit-oriented development. When transport and affordable housing are aligned, land values in surrounding areas can increase considerably (by as much as 60%), and governments can capture a share of that increase to help pay for both.

## 2. Releasing Public Land

Governments are often amongst the most significant landowners. Releasing publicly owned land can be structured so as to achieve specific goals. For example, it can be used for PPPs, allowing social aims to be fulfilled with private investment. Alternatively, it can be auctioned so as to raise revenues for other projects and policies.

## 3. Unlocking Serviced Idle Land

In many cities there is idle land which is served by infrastructure. This land may lie idle for a number of reasons, such as speculation, land banking, or simply a lack of clear title. Such land can be made available through tax and regulatory policy. Tax exemptions on new development, or penalties on idle land, for example, would incentivise development. In China, owners are charged 20% of land price if they leave urban land undeveloped for a year, and the land can be confiscated if undeveloped after two years.

## 4. Land Assembly or Readjustment

Ownership of available land is often fragmented, making development complicated and time-consuming. Land pooling can serve as a mechanism of redress for this problem. Under such schemes owners pool their land in return for infrastructure investment or planning permission concessions. The land is then returned to the owners, who are incentivised to contribute to development because of increasing land values.

One of the major issues in developing countries is that of land title. Lack of title often keeps land off the market. Large developers and international firms are particularly reticent to be involved because of potential legal complications. An efficient land registration system addresses this problem and helps facilitate development. A land ownership database also incorporates data on land value, land-use restrictions, and encumbrances (e.g. mortgages) helping make land ownership clear as well as smoothing the development process.

# 6. Inclusionary Planning

Land-use rules are among the most powerful tools available to governments. Adjusting land-use rules can increase density or focus development in certain areas of a city (for example around transit hubs). By using such rules, housing can be created across all income segments, and older stock is made available for lower-income households. The inclusionary element of planning refers to the tradeoff whereby developers are asked to supply affordable housing in their developments in exchange for the higher value that allowing greater density construction allows. South Korea has been a leader in these policies, using them to great effect in Seoul.

# 2. CONSTRUCTION

Given the cost and value challenges that are often associated with affordable housing, it is imperative that development become more productive. Productivity gains can be achieved both in terms of capital and construction. With regards to the former, standardisation, efficient purchasing, and improved implementation can yield large rewards. Standardisation of the major systems and components that make up a development significantly reduce cost. Similarly, developing tools to better manage procurement - such as building consortia, or separating construction companies from suppliers - helps reduce input cost. Finally, more efficient implementation, through improved project management or faster construction times, can help reduce both time and cost. As for construction, new techniques can be adopted to yield gains. Used of pre-fabricated parts, for example, saves both cost and time. Given that up to 80 percent of activities for residential buildings could potentially be done offsite, it is surprising that these techniques have not been widely adopted. In many cases this has not taken place because of the scale of initial investment needed to develop offsite production. Government can play a key role in spearheading such efforts either through its own initiative or through bringing developers together.

#### 3. OPERATIONS AND MAINTENANCE

In addition to construction, efficiencies can also be found in operations and maintenance. Reducing these costs can increase the affordability of housing, as well as helping preserve the quality of existing stock. The most obvious ways to cut these costs are though improving energy efficiency and reductions in maintenance costs. Retrofitting homes with energy saving materials (e.g. insulation, windows, heating) can be achieved either through direct intervention or subsidies and can reduce energy costs by up to 30%. As for maintenance costs, there is significant scope for economies of scale to be achieved. If developers join together in consortia, or if government requires certification and listing of maintenance and repair companies, then significant cost reductions can be achieved by the increased choice and competition that is made available. Facilitating the development of homeowners associations is particularly significant in this regard, as they have a clear interest in efficient operations and maintenance of their property. Given the low margins associated with affordable housing, savings on development, operations, and maintenance are hugely important and can change the economics of affordable housing provision, making it both financially feasible in addition to being socially commendable.

## 4. FINANCING

Financing plays a critical role in all housing, but a particularly acute one in affordable housing. The challenge is especially great in developing countries where financial systems are underdeveloped and many lack access to formal finance. The unbanked also frequently lack standardised records of income, savings or payments, making it difficult to judge their creditworthiness. If low-income families can get credit, they must often pay a higher premium because of their perceived elevated risk profile. At the same time they often lack savings for down-payments, meaning that mortgages they do take out have a high loan-to-value ratio, making them riskier and again requiring higher rates. Despite these challenges, more can be done to improve access to credit for low-income households.

## 1. Reduce Loan Origination Costs

The best way to do this is to reduce the risk of lending to low-income buyers. Improving assessment methods (through credit bureaus, or certified property appraisal schemes for example), would grant a better understanding of risk. In addition, mortgage guarantee programmes can also served to reduce the risk of lenders by protecting them from default.

## 2. Reduce Cost of Funding Mortgages

Both banks and the government have a role to play in reducing the cost of funding mortgages. Banks should make more loans backed by core deposits and find ways to connect to secondary financial markets. Governments can play a crucial role in this by creating financial intermediaries that match mortgages with the short term interest of investors. Many countries have national mortgage corporations that do just this, purchasing loans from banks and issuing debt securities to investors. Finally, securitisation of mortgages, with proper safeguards, can help provide liquidity and capital for mortgage lending. Of course, such securitisation requires a sufficiently developed financial market if it is to be conducted safely.

# 3. Leverage Collective Savings to Reduce Rates

Collective savings programmes can be used to build up savings to reduce mortgage size and fund low-interest loans to program participants. Contractual savings programmes create savings by requiring members to make contributions. The savings build up and are used to fund low-rate mortgages for members. Other possibilities include the creation of provident funds, which use savings such as pensions to fund housing loans. In Mexico, a charge is levied on all salaries which is used to underwrite mortgages and develop affordable housing.

#### 4. Conclusion

Beyond these purely financial tools, there is a need to reduce developer risk and capital cost. This can be done through government commitments to buy finished units or guarantee their rental (as practiced in Brazil). Alternatively Governments can ask developers to pay for land only once the units have been sold (a practice adopted in South Africa). Streamlined permitting also helps reduce development cost. Finally, Governments can adopt more direct approaches, such as guaranteeing developer loans or improving debt terms and access.

# 5. DELIVERY PLATFORM

The above tools and measures cannot be effective without a well-designed and efficient delivery platform. For the platform serves as the intermediary through which policy and goals are translated into action. The delivery platform will vary depending on the local context but must collaborate with the community, adopt an appropriate delivery model, identify all possible sources of funding, and establish rules for governance. The following section, as above, draws on international best practice to discuss the whole range of possible approaches and options. How to adapt and develop this for the Mongolian context will be discussed subsequently in section 6.3.

#### 1. COMMUNITY ENGAGEMENT

Given that provision of affordable housing is a conscious political intervention designed to address socioeconomic inequality, community engagement is critical to ensuring that housing provision is fair, transparent, and legitimate. The first step is to determine who is eligible to receive affordable housing - a classification that should be determined based on local conditions and with local participation. Similarly a range of unit sizes must be determined, and volume targets outlined. When it comes to the question of allocation of affordable units, it must be noted that there is wide scale potential for abuse, given that it involves offering a good at a below-market rate. Authorities must invest in screening and verification capacities, and ensure that there are harsh penalties in place for fraud. Given that demand will normally outstrip supply, allocation must be managed through an appropriate mechanism, such as lotteries or waiting lists.

#### 2. DELIVERY MODEL

Broadly speaking, four models of affordable housing provision can be identified around the world.

## 1. Consumer-Led Delivery

In this model it is consumers who drive construction of affordable housing. Given the complexities of the construction industry, this is an elaborate process, but the practice is widespread. Governments can assist in the process by providing benchmarking information (e.g. a construction price index) or technical assistance (e.g. publishing legal advice), or by requiring builders to meet certain standards through certification.

## 2. Incentivised Private Development

In this model private developers receive financial and non-financial incentives to build affordable housing. This housing is then sold to consumers, purchased by the government, or operated as rental property. The government determines the incentives and which land qualifies for such incentives, as well as being responsible for ensuring that developers meet their commitments.

#### 3. Public-Private Partnerships (PPPs)

PPPs became a popular delivery mechanism for large projects in developed countries from the late 1990s, and have since spread around the world. Instead of simply regulating, once its traditional role, the state partners with the private sector to deliver a project. Private developers may be given land by the government, for example. Otherwise the government might provide an occupancy or rental guarantee. These partnerships allow risk to be shared and reduced between the two parties.

## 4. Public-Sector Delivery

This model remains popular throughout the world, with a state-owned public housing authority hiring private-sector contractors to build on public land and subsequently retaining control and ownership of the project. The authority then sells or rents the properties.

#### 3. FUNDING

Similar to the delivery model, three broad methods of funding affordable housing interventions can be found worldwide.

# 1. Land-Value Capture

This is a popular and effective way to fund housing programmes. Through use of zoning, greater density development can be granted to developers in certain areas - known as a "density bonus." This bonus substantially raises the value of the property. In exchange for this bonus, developers provide either land for development, or deliver affordable units, thus allowing the city to capture the value of this density bonus.

# 2. Cross-Subsidies

Subsidies are widely used to reduce the cost of living for low-income demographics, thereby making their housing more affordable. This can be done through discounting utility bills for low-income households, or through provision of low mortgage-rates through provident funds. While they can prove effective, subsidisation policies must be managed carefully so as to be both affordable and effective.

# 3. Public Budgets

This final tool allows government to fund public housing either directly or indirectly. Funds can be distributed directly in rental support or as deposits for first time home owners (as the US and UK do respectively), or funds can be put aside for the construction or acquisition of affordable housing. Where funds are limited, funding can be used for viability-gap funding -providing the share of investment for affordable housing projects that makes the economics viable for private sector developers. Finally, tax incentives can be used to shape and encourage development.

#### 4. GOVERNANCE

Delivery of affordable housing depends on both economics, but also on time. Indeed, given the low margins associated with provision of affordable housing, efficient and effective governance of the processes can help augment the business case as well as the speed of delivery of housing. Making obtaining permitting and approvals as simple as possible increases the viability of affordable housing provision. At the same time, developers that invest in affordable housing must start receiving payments and cash flow as quickly as possible so as to maintain profitability. As a result unnecessary steps must be removed from the permitting process. Singapore, for example, has automated the building approval process. Similarly, housing authorities can improve delivery by investing in goal-setting and tracking performance. Dedicated delivery units for specific projects can also be helpful in tackling bureaucratic malaise and driving a project forward.

# 3. AFFORDABLE HOUSING IN MONGOLIA

### 1. INTRODUCTION

As the above section has made clear, the challenges and opportunities of affordable housing can vary enormously on a country-by-country basis. While having an understanding of international best practice is essential when it comes to providing affordable housing, this cannot be divorced from the local context and the idiosyncrasies of different national and urban settings. This is particularly true of Mongolia, where a number of factors limit and shape the real estate sector and where urbanisation has resulted in some truly unique outcomes - most notably the ger areas. The structural constraints on urban development that have limited supply of affordable housing will now be considered, before examination of the ger areas and the development issues associated with them. Throughout, though, it is necessary to bear in mind that the two cannot be considered in isolation from each other - for it is the residents of the ger areas that most need, and would most benefit, from affordable housing, while provision of decent affordable housing is one of the best ways to mitigate the development challenges associated with the ger areas.

## 2. STRUCTURAL CONSTRAINTS ON URBAN DEVELOPMENT IN ULAANBAATAR

Traditionally Mongolian society has been pastoral-nomadic and, as a result, urbanism has shallow roots. Ulaanbaatar has a relatively long history, but it is only over the last 80 years that anything resembling today's city came into being. The development of the city accelerated after World War II and, in the socialist tradition, was organised and delineated according to principles of scientific planning. The urban core, which today houses the major government buildings, the central business district, and the retail power centres of the city, was complemented by relatively large-scale housing developments. The city was initially planned for around 800,000 inhabitants, and investments in infrastructure were made accordingly. Alongside the formal city, unplanned housing existed in what came to be known as the ger areas. These areas have always existed, but their scale was limited. This, along with much else, would change with the demise of communism in the early 1990s.

The transition to a democratic and market-based society brought wholesale change that was oftentimes chaotic. The construction and urban development sectors were at the heart of this process, with property gradually being privatized and new market forces propelling development. At the same time, migration to Ulaanbaatar accelerated and the ger areas expanded rapidly. It was not until the 2000s, however, that both of these trends really picked up

pace, as wealth and income began to rise on the back of investments in extractive industries. The result has been a rapid expansion in Ulaanbaatar's population, to today's total of 1.37 million inhabitants. This growth put considerable strain on urban infrastructure and government services and, despite a considerable expansion of the city's built area, some 200,000 households currently live in ger areas as investment has failed to keep pace with expansion. These unique characteristics have resulted from and in a specific set of structural constraints and deficiencies that continue to shape the city's development. The most prominent of these are:

#### 1. INFRASTRUCTURE

The largest structural constraint facing Ulaanbaatar is that of infrastructure. As noted above, the city was built for a much smaller population than that which we currently have. Technical analysis of infrastructure capacity in both Ulaanbaatar and nationwide reveals significant deficiencies that restrict growth. The stated intent of the Ulaanbaatar Master Plan is for 82% of households to be connected to central networks of heating, water, electricity and sewerage by the time of its conclusion. However, at present, only around 55% of the total population of the capital city is served by centrally provided infrastructure. Available land connected to infrastructure is limited, while expanding infrastructure beyond the existing grid is prohibitively expensive. A World Bank team, for example, estimated a minimum cost of \$1,250 for installation of an indoor heating and water system in the ger areas, and this is before the costs of expanding the pipes and building substations have been factored in. At the same time, new developments continue to be built on land connected to infrastructure, increasing the strain on the city's power and heating networks. Indeed, Ulaanbaatar's total power supply provides 1,585 Gcal/hr. With demand reaching as high as 1,555 Gcal/hr and power losses during distribution averaging 19.6%, it is no surprise that customers face an average of thirteen power interruptions annually.8 With construction set to expand and no significant new capacity coming online until the completion of CHP 5 (expected to bring approximately 454 MW online by 2020), there is a serious risk of collapse of power infrastructure. The heating network faces a similar strain. As a result of this strain, developers continue to pay a premium for centrally located property and land, with potential connection to existing infrastructure, whilst land not connected to infrastructure transacts often at no more than a few dollars per square meter. A number of developers have sought to develop on greenfield sites beyond the reach of the city's current infrastructural reach, however, this brings with it the challenge of creating reliable, shared, offgrid solutions. If a developer wishes to extend existing infrastructure to an out-of-town

<sup>6 &</sup>quot;Statistics Department of Ulaanbaatar." Accessed September 6, 2015. http://www.ubstat.mn.

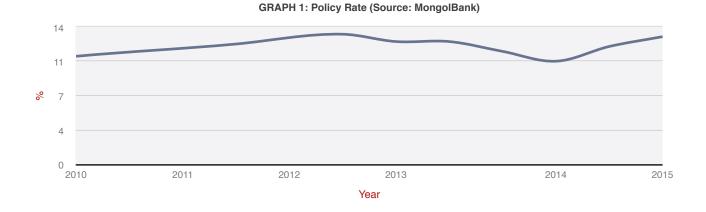
<sup>&</sup>lt;sup>7</sup> Enhancing Policies and Practices for Ger Area Development in Ulaanbaatar. World Bank, 2010.

<sup>8 &</sup>quot;Mongolia: Energy Efficiency and Urban Environment Improvement." Accessed September 6, 2015. <a href="http://www.ad-b.org/projects/46343-001/main">http://www.ad-b.org/projects/46343-001/main</a>

development, they run the risk of incurring significant costs and potentially receiving severely curtailed services due to overall lack of capacity in Ulaanbaatar's infrastructure.

## 2. FINANCE

Mongolian banks are relatively small, with correspondingly small balance sheets. As of July 2015, the consolidated assets of all Mongolian banks amounted to MNT 21.45 trillion (about \$10.7 billion USD at today's exchange rate).9 Their size limits their lending possibilities to begin with and, as a result, the banks have only MNT 11.9 trillion of loans outstanding (c. \$5.98 billion).10 The elevated risk profile of an emerging market like Mongolia means that interest rates are high. The policy rate currently stands at 13%, and the trend has been upward because of the macroeconomic headwinds of the last 24 months. This policy rate often translates into an annual percentage rate for borrowers of between 15 and 25%. These rates affect both the demand side, with housing finance being unaffordable to most, and the supply side, with developers unable to build low-margin developments because of the cost of financing. At the same time, the difficulty that developers have in obtaining financing shapes the real estate sales model, with developers relying on pre-sales to finance construction and completion. Being forced into this model weakens both the developers (who must sell at a discount) and the buyers (who must pay up but lack any guarantee of completion on the part of the developer - a problem exacerbated by the fact that in Mongolia a property title is only issued by the state upon completion). Beyond this, financing also shapes the supply preferences of developers. Indeed, they most often tend to want to build mid-to-high end developments (be they commercial, retail, or residential) as the high margins that such developments allow for are the only way to cover the financing costs and make the project viable. Of course, this calculation often fails to take into account the market as a whole, and many mid-to-high end developments remain unsold because of oversupply.



<sup>9</sup> "Statistical Bulleting: July 2015." Accessed September 6, 2015. <u>http://www.mongolbank.mn/</u>. USD amount calculated using the exchange rate of September 6: MNT 1993 - USD 1.

<sup>&</sup>lt;sup>10</sup> Ibid.

#### 3. LABOUR

Skilled construction labour is hard to come by in Mongolia, and many are deterred by the seasonal and volatile nature of the construction industry. Although the legal baseline wage for construction labour is low, the rates for skilled engineers and technicians is much higher. Whilst this is positive for employee prospects within the construction sector, the concomitant increase in construction costs puts projects in the low cost residential sector in danger of missing the affordability range of their target demographics. Chinese and even North Korean labour remains widely used in construction projects of varying scopes and scales. In fact, the vast majority of large-scale major construction projects in Mongolia are completed using migrant Chinese labourers. The number of legal Chinese workers present in Mongolia at any time during the summer months was estimated at 80,000 in 2010, when the last boom began. However, this figure was subsequently considered to be somewhat exaggerated. The Law of Mongolia on the Legal Status of Foreign Citizens actually states that the total number of all foreign citizens in Mongolia, including workers, students, travellers and foreign residents should not exceed 3% of the entire national citizenship. The total number of immigrants should not exceed 1%. in terms of volume of workers received by Mongolia by origin, In terms of registered origin of foreign citizens in Mongolia, China tops the list, with North Korea coming in second and South Korea third. In order to secure the growth of the domestic construction industry and reduce reliance on Chinese construction labour the Government of Mongolia has set about addressing a shortage of skilled labour in the domestic Mongolian market via a number of mechanisms - most obviously the development of vocational schools and upscaling of Technical and Vocational Education and Training (TVET) programmes, but the effects of such efforts will be felt only gradually.

## 4. MATERIALS

Although expansion of concrete and other basic construction materials has expanded in recent years, most inputs have to be imported from China. With only a single track railway connecting the two countries, construction materials can be expensive to import, and imports of equipment and consumer goods mean that capacity is limited. As a result, developers must stockpile in advance of construction if they are to have all the necessary materials ready. Beyond this, construction materials are subject to both internally and externally driven price shocks. Analysis of price changes in major construction materials in Mongolia by manufacturing origin during 2014 reveals a familiar seasonal trend. From Q1 - Q2 prices in construction materials across the board rose by 6.3%, with imports from Russia rising by 12%, from China by 5.9% and domestically produced materials rising by 6.5%. Whilst logistical and import bottlenecks contribute to the rising prices of Chinese and Russian materials during the Spring months, when the pace of construction ramps up, demand pressures on a small domestic supply of key materials such as concrete and bricks forces prices up in the domestic market. Prices tend to

drop back by the third quarter, but may show increases at the end of the year as winter makes import more difficult. Companies are also now beginning to import earlier in the year in order to stockpile before the spring construction season gets underway. Overall price growth across all 26 basic common and basic building materials surveyed revealed 12.9% growth in building materials. Materials from China rose the most, showing 15.9% price growth from Q1-Q4 2014. For the same period price growth in materials imported from Russia kept pace at 15.5%. Domestically produced materials rose in price by just 5.9% during the same period. These figures account for depreciation of the MNT - an additional complicating factor that affects purchasing of materials.

## 5. SEASONALITY

The extreme cold of the Mongolian winter (with temperatures regularly dropping to -35 degrees celsius) means that construction can only take place between May and September. This increases both the cost of development, as well as negatively impacting key investment metrics such as IRR and NPV, making it harder to attract investment. From the logistical point of view, it requires extra organisation and planning on the part of developers as construction is frenetic during the summer months. High-profile projects often see round-the-clock construction take place during summer. For large multi-level developments, the average length of construction is between 18-36 months, split over three or more summer seasons. Long construction periods are problematic in all countries, but the difficulties are particularly acute in a market as volatile and dynamic as Mongolia's as market dynamics may change considerably since the beginning of a project. Developers have tried to employ advanced construction technologies to overcome the problem of seasonality, for example through use of steel-frame construction or slip-forming techniques, but these are often prohibitively expensive and employed only on high-profile projects.

#### 6. CORRUPTION

The permitting process for construction is relatively complex in Mongolia and may delay or extend construction timelines. A Mongolian National Chamber of Commerce report found, for example, that it takes on average 73 days to obtain a construction permit. This is 30 days longer than the regional average. With over 20 permits from six different agencies required to complete the development cycle, it can take over a year to put all the necessary permissions and paperwork in place. On top of that new constructions require 56 approvals before issuance of an immovable property certificate is possible. As a result, there is considerable room for corruption in the Mongolian construction sector. Although it is hard to estimate the extent of this problem in the market, it certainly represents an added risk for all parties involved.

## 7. CONCLUSION

When taken together, the cumulative effect of these idiosyncrasies is to create an unbalanced market. The high cost structure of development - driven by finance, labour, materials, and seasonality - has incentivised the construction of mid-to-upper end developments in the retail, residential, and commercial submarkets. Proprietary research conducted by M.A.D. in 2012, for example, found that there were an estimated 4,000 units on sale at \$750,000 or above, but only 350 households with the disposable income readily available to purchase units at this price. Developers prefer to build such properties because of the higher margins and yields that they notionally offer. The problem, however, is that these potential gains are notional, and not necessarily realisable. Despite the rapid economic development of the last decade, the proceeds of this wealth have not been evenly spread. The 60% of residents living in the ger areas in most cases are unable to afford units in privately built developments. Thus there is a clear mismatch within the market, with oversupply in high-end developments and a chronic undersupply of affordable housing, despite there being latent demand for it. While to a certain extent this is normal, with high-income housing almost always being built before middle- and lower-income housing, efforts to address the structural constraints on development listed above are only now getting underway. As a result, this market mismatch remains as pertinent as ever to understanding urban development in Ulaanbaatar, and in large part explains why the ger areas have continued to grow. It is therefore necessary to consider the features that make the ger areas unique, as well as the negative socioeconomic outcomes and externalities associated with them - features that make the need to increase supply of decent affordable housing both pressing and compelling.

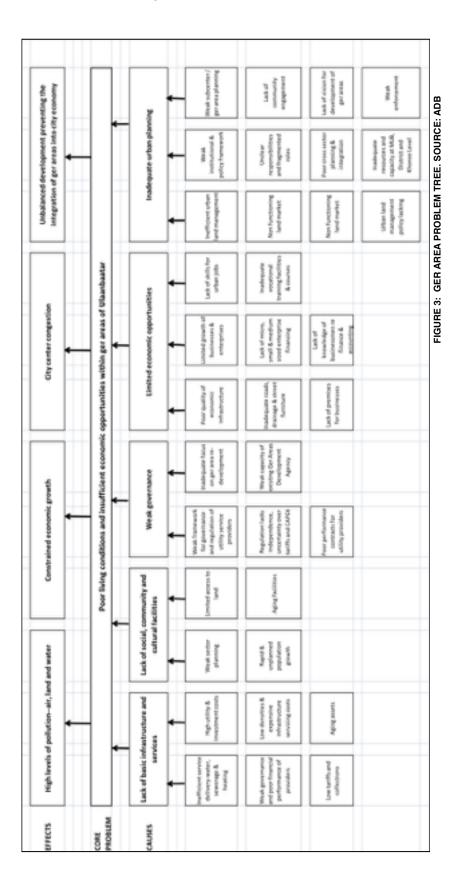
## 3. THE GER AREAS OF ULAANBAATAR

The ger areas, consisting of detached and unplanned housing, have always existed but have increased in scale over the last two decades – a result of rapid economic growth and its corollaries, in-migration and population growth. Indeed, the city's population has increased by 54% in the last ten years alone.<sup>11</sup>

Population growth on such a scale has placed a strain on the city's infrastructure and housing stock, explaining how it is that 60% of the city still live in ger areas. In contrast to the apartment areas that make up the centre of Ulaanbaatar, the ger districts suffer from a wide range of development issues, including elevated poverty, a lack of infrastructure, services, and social facilities, weak governance, limited economic opportunities, and inadequate urban planning. These issues cause a number of negative externalities that affect the whole city, including high

<sup>11 &</sup>quot;Statistics Department of Ulaanbaatar." Accessed September 6, 2015. http://www.ubstat.mn.

levels of pollution, constrained economic growth, congestion, and unbalanced development that limits the connections between the ger areas and the wider city.



A wide range of academic and development literature exists on the ger areas, and the main challenges associated with them are well known. Firstly, there is the monetary element. With about 45% of ger area residents having incomes below the poverty line, many are unable to build savings and invest. At the same time, they suffer from a lack of access to shelter and urban services. It is worth noting that in contrast to many developing countries, lack of land tenure is not a serious problem in Mongolia, and most ger area residents have legal title to their plots of land (known as *khashaas*). Rather the problem of plenty creates challenges, as it ensures low population densities thereby making expansion of urban services prohibitively expensive. As a result most ger areas lack mains water supply and sewerage. Roads and public transport are often sub-standard in comparison to city centre areas, and services such as solid waste management are infrequent as well as affected by gaps in coverage.

At the same time, social and government services are equally undersupplied and, where services are provided, ger area residents often have to pay more for them – a highly regressive pricing structure. Water, for example, costs 0.48 MNT per litre for apartment dwellers, but one tugrug per litre from water kiosks in the ger districts. A third important element relates to social inclusion. While they rely heavily on their own family and social networks in day-to-day life, it is estimated that about 50% of ger area residents are inactive in terms of social and political community mobilisation and organisation. This is often a product of in-migration, with new migrants experiencing dislocation as they arrive in the city. The final element relates to empowerment, which refers both to the lack of information about government decisions as well as the lack of participation in decision-making. Indeed, it has consistently been noted that the lack of information and participation results in the socioeconomic needs of ger area residents going under addressed.

The economic profile of the ger areas also differs significantly from that of the apartment areas, with higher poverty and unemployment rates. More importantly, different types of economic activities take place in the ger areas. In addition to trade and machine operation and repair, they are heavily reliant on construction and manufacturing/light industry, rendering residents particularly vulnerable to economic downturns and seasonality. What's more, incomes in the ger areas are estimated to be some 40% less than those in the apartment areas, with government benefits and allowances, as well as unofficial income, playing an important role in supplementing income. In addition, trade-in-kind forms an important part of economic life, with labour and goods often being bartered against in-kind contributions. Informal individual businesses, mostly run on an individual or family basis, make up the majority of economic activity in these areas and are central to social and economic life therein.

Despite these issues, the ger areas are home to large-scale social and economic activity that is adapted to their unique features. Proximity based retail and services, such as kiosks and repair

<sup>&</sup>lt;sup>12</sup> See Enhancing Policies and Practices for Ger Area Development in Ulaanbaatar. World Bank, 2010.

shops, exist throughout the ger areas, and specialised economic hubs have also developed. These often house goods and service providers that cannot be located in the city centre – making them ideal for the low-density ger areas. Commercial and light industrial activities take place on land throughout the ger areas – ranging from individual repair shops, recycling businesses, and craftsmen to larger and more specialized markets. Zun-ail, the main construction market, is located just North of the city centre, for example, while the da khuree market, found in the Southeast of the city, is the principal location for auto sales and repairs.

Beyond socioeconomic issues, the ger areas are linked to public health problems. With the majority of dwellings relying on inefficient and unclean stoves and boilers for heating, they are a major source of pollutants. Indeed, the average ger requires 5 tonnes of coal and 3m³ of wood per year, with 60% of consumption taking place between November and February.¹³ Taken along with other pollutant and emissions sources it is estimated that the city of Ulaanbaatar emits an annual total of 62,000 tons of PM2.5. Compare this to Delhi, a city of over 22 million inhabitants, which emits 63,000 tons, and it becomes apparent how polluted Ulaanbaatar is. A 2009 World Bank Report¹⁴ on heating in peri-urban areas estimated that ger area fuel consumption accounts for between 45 and 70% of this PM2.5 output depending on the time of year, meaning that ger area heating is having negative health and environmental impacts that affect the entire city.

In concluding, it is worth recalling the link between the ger areas, the socioeconomic and public health issues associated with them, and affordable housing. The ger areas' growth can, in large part, be explained by the lack of decent affordable housing in Ulaanbaatar. Although not everyone will want to move from ger to apartment (or be able to afford to), the sales records of the city's first affordable developments suggests that the lack of supply, rather than a lack of demand, explains the continued growth of these areas. As such, the best way to mitigate these issues is to provide decent affordable housing that targets socioeconomic priority groups, the majority of which are currently living in ger areas. With limited land connected to infrastructure available in the city centre, and with the low density ger areas covering an enormous area as they extend away from the urban core, this will by necessity involve redevelopment. The question of density remains a delicate one, and redevelopment will have to balance between the economies of scale that high density development brings and the cultural preferences for low density development, but this is a question of degree rather than of substance. Despite differing opinions on how this urban development should proceed, there is a consensus on the pressing need to take action and create new avenues for urban growth. Development and redevelopment that bring decent and affordable units onto the market are critical if Mongolia is to continue to follow an upward development trajectory. It is thus positive that the relevant policymakers and international organisations involved in urban development have recognised this, and are in the process of planning or implementing projects to address the city's lack of affordable housing and redevelop the ger areas.

<sup>&</sup>lt;sup>13</sup> Guttikunda, Sarath et. Al. Particulate Pollution in Ulaanbaatar, Mongolia. *Air Qual Atmos Health (2013).* 

<sup>&</sup>lt;sup>14</sup> Enhancing Policies and Practices for Ger Area Development in Ulaanbaatar. World Bank, 2010.

# 4. ONGOING EFFORTS

### 1. INTRODUCTION

With affordable housing touching on such a wide range of topics, both directly and tangentially, it is impossible to give a complete overview of all the policies and projects that aim to supply affordable housing or redevelop the ger areas. Nevertheless, certain core policy documents must be considered - most notably the National Development Strategy and the Ulaanbaatar Master Plan - and investigation of lynchpin projects and policies allows us to distil a coherent picture of how the issues of affordable housing and ger area redevelopment are being tackled.

#### 2. NATIONAL DEVELOPMENT STRATEGY

In the 1990s and early 2000s, urban planning and housing issues were accorded relatively low priority by the Government of Mongolia, with emphasis placed upon economic liberalisation, devolution and decentralisation of power, and public sector reform. It was not until 2007 that work began on formulation of a National Development Strategy, to be based on the Millennium Development Goals. The Mongolian Parliament adopted the Strategy in 2008. It is split into two phases - a first lasting between 2007 and 2015 and focusing on the intensive development of the economy and achieving the Millennium Development Goals; and a second focused on a transition to a knowledge-based economy that is to take place between 2016 and 2021. The Strategy outlines four main development priorities, with a number of individual policies for each. These priorities are as follows:

- Human and Social Development
- Economic Growth and Development Policy
- Environmental Policy
- Legislative and State Structure Development Policy

The National Development Strategy and urban development are both mutually linked, and various elements of the strategy touch on the sector - both directly and indirectly. With regards to direct linkages, it must be noted that the document lists a shortage of adequate housing as being one of Mongolia's development weaknesses. Moreover, it gives the state, as a stakeholder, clear duties in this regard, including the creation of a favourable environment for citizens to live healthy and safe lives, run businesses and make investments, as well as

creating conditions for providing high quality, accessible, and rapidly delivered public services for citizens. A sufficient stock of adequate housing is necessary to fulfil these duties.

When one digs down into the actual policies, it is clear to see that housing is a central part of the human and social development priority, as well as the economic growth and development priority. The overarching aim of the former is to create favourable conditions for families to be united and harmonious, have their children grow up in a healthy and safe environment, and allowing families to develop their own talents. An adequate stock of affordable housing is essential to realising these goals. As for the latter, it envisions acceleration of construction and development of urban settlements, with due account taken of proper patterns of population settlement.

Beyond these direct linkages, it must also be noted that the development strategy links to urban development in a number of other, more subtle, ways. For example, the National Development Strategy lists one of Mongolia's development weaknesses as being unemployment and poverty. As discussed in section 2.3., transit-oriented affordable housing can play a key role in reducing poverty by offering labour opportunity and mobility. Similarly, the strategy outlines what it believes to be the core values of Mongolians, one of which is promoting individual and social progress. Affordable housing is a prerequisite to this. In sum, provision of decent housing would help achieve the goals of a number of the individual policies outlined in the strategy. It would provide a means to tackle unemployment and reduce poverty, as well as to achieve social welfare aims. The social welfare policy includes securing labour rights, developing productivity and skills, and supporting appropriate employment of various population groups, including vulnerable social groups amongst its objectives, all of which affordable housing provision can help achieve.

Beyond these socioeconomic goals, it must be noted that housing in the Mongolian context is closely related to environmental and health outcomes. Given the negative public health impacts of unplanned housing in Mongolia, construction is central to limiting and halting pollution and also environmental degradation in the capital. This would have a clear impact on health outcomes and can help decrease the incidences of diseases and premature mortality, thereby increasing life expectancy.

# 3. ULAANBAATAR MASTER PLAN 2030

## 1. VISION, PRIORITIES, AND STRATEGIES

Moving from the national level to that of Ulaanbaatar, the city's Master Plan<sup>15</sup> is an equally important strategic document, even more so when it comes to driving change as it outlines a

<sup>&</sup>lt;sup>15</sup> Ulaanbaatar 2020 Master Plan and Development Approaches for 2030. Municipality of Ulaanbaatar. 2014.

number of strategies for implementation. The Master Plan was adopted by the national parliament in 2002 (and amended in 2013) and requires over MNT 32 trillion of investment for its realisation (c. \$16 billion). Before dealing with technical planning issues, the Master Plan initially outlines a vision and priorities for Ulaanbaatar:

• Ulaanbaatar will be the capital of Mongolia. It will respect the country's nomadic heritage, value its people, embrace its geographical characteristics, be environmentally friendly, have industries that are globally competitive and technologically advanced, and it will be a smart city with unique Mongolian characteristics.

# A number of priorities are then listed:

- Priority 1: Ulaanbaatar will be a safe, healthy, and green city that is resilient to climate change.
- Priority 2: Ulaanbaatar will provide a liveable environment for its residents through appropriate land use planning, infrastructure, and housing.
- Priority 3: Ulaanbaatar will be a city with good governance and a developed legal environment that serves the general public and private sector.
- Priority 4: Ulaanbaatar will encourage the further development of settlements, towns and satellite cities outside the city center.
- Priority 5: Ulaanbaatar will be one of Asia's tourist destination cities.
- Priority 6: Ulaanbaatar will have an intentionally competitive business centre and be developed as a world-standard capital city.

In addition to these priorities, seven general strategies to guide implementation have been outlined. These are:

- Strategy 1: mitigate the centralised settlements by restructuring administrative units.
- Strategy 2: improve the city's administration of the planning system by introducing land-use zoning codes.
- Strategy 3: improve and extend the road and public transport network.
- Strategy 4: improve the existing conditions of the socioeconomic infrastructure.

<sup>&</sup>lt;sup>16</sup> USD amount calculated using the exchange rate of September 6: MNT 1993 - USD 1.

- Strategy 5: re-develop ger areas in stages incorporating new apartment complexes.
- Strategy 6: improve the basic infrastructure such as utilities and telecommunications.
- Strategy 7: establish sustainable environmental management.

An additional element that is central to the master plan involves the nurturing of regional towns and satellite cities around Ulaanbaatar. By 2030, it is envisioned that these towns and cities will house some 363,000 people. Their integration with Ulaanbaatar itself will be assured by investment in coordinated regional transport. Each of the towns will have a specialised agricultural, manufacturing, industrial, or logistics focus. In addition to this, a green belt will be introduced around the city to contain the size of the city and limit development in flood plains and on the drinking table. Regional transport will also be developed. Firstly, the railway line will be redeveloped so that it no longer goes through downtown Ulaanbaatar. Improved roads will connect the satellite cities, while a highway will run along the South of the city, as well as connecting the new airport to the city.

Covering so many facets of urban planning in detail, it is necessary to focus on the most relevant elements. For the purposes of this paper, these are city structure, land use zoning, transportation, and housing - all of which are briefly discussed below.

#### 2. CITY STRUCTURE

The theme of decentralisation is an integral part of the plan's vision for Ulaanbaatar and its environs. The idea is to create alternative economic centres and sub-centres within the city so to reduce congestion, pollution, and general inefficiency. The vision is that of creating a multicentric city with decentralised government services, businesses, and facilities. It is envisioned that the resulting city will be more economically sustainable, liveable, and dynamic.

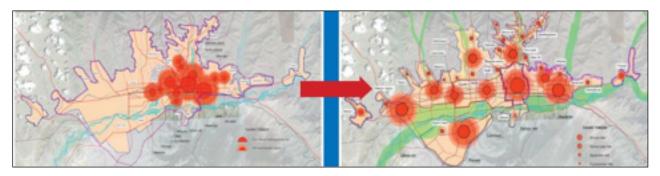


FIGURE 4: DECENTRALISATION OF ULAANBAATAR. SOURCE: MUNICIPALITY OF ULAANBAATAR.

#### 3. LAND USE ZONING

A key part of the Master Plan is the introduction of a new land use zoning system. This will cover all land in Ulaanbaatar and includes seven zones: residential, commercial, industrial, open space, mixed use, engineering infrastructure and special purpose. The aim of the zoning regulations is to resolve a number of planning issues, including the lack of city infrastructure, the unplanned expansion of the city, protecting public space, settling and reinforcing development and land use standards, enabling historic preservation, and establishing a system of land use, control, and management.

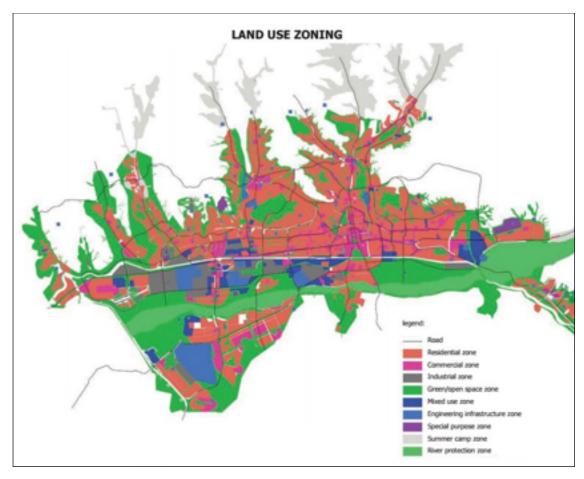


FIGURE 5: LAND USE ZONING. SOURCE: MUNICIPALITY OF ULAANBAATAR.

# 4. TRANSPORTATION

Transportation development and investment forms a key part of the Master Plan. The sub-centre development strategy, for example, is designed in part to reduce congestion. To increase connectivity between the different centres and sub-centres, some nine north-south roads and six further east-west roads will be developed, along with four ring roads. In total 1204 kilometres of new roads will be constructed. At the same time, there will be major investments

in traffic management and car parking technology systems. Finally, Ulaanbaatar is aiming to establish an efficient bus rapid transit scheme so as to upgrade public transport.

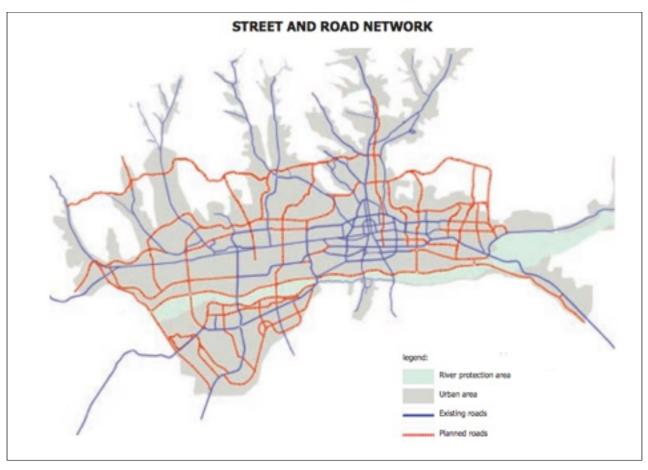


FIGURE 6: PLANNED STREET AND ROAD NETWORK. SOURCE: MUNICIPALITY OF ULAANBAATAR.

#### 5. HOUSING

With the number of households set to grow, and the target share of the city's population to be living in apartments by 2030 set at 70%, the Master Plan admits a need to develop apartment housing. As such, it envisions the construction of 30 apartment complexes which will be comprehensive in nature, including social infrastructure such as schools and hospitals, as well as parks and amenities. Parking will also be provided. Ger area redevelopment is central to this and 24 of the new developments are to be of this nature - projects which are subject to a legally defined redevelopment procedure and are examined in section 4.5.4. below.

#### 6. ASSESSING THE MASTER PLAN

The Master Plan is a pivotal document with regard to processes of urban development and growth in Ulaanbaatar. By laying out a vision for the city, priorities to achieve, and strategies for

implementation, it encourages all the major actors in urban development to work towards the same goals. The result should be that Ulaanbaatar will gradually evolve, moving in the directions outlined in the Master Plan. Of course, it will be almost impossible to fully achieve these targets, and there will be failures along the way (indeed some are already apparent and are discussed below in section 5), but the importance of an overarching framework to guide, shape, and constrain urban development cannot be underestimated given the large number of projects being implemented by multiple stakeholders - the most important of which are discussed below.

# 4. GOVERNMENT OF MONGOLIA POLICIES AND PROJECTS

#### 1. INTRODUCTION

The Government of Mongolia has an important role to play in urban development and does so primarily through the Ministry of Construction and Urban Development. Its influence mostly derives from the legal framework that it promulgates, but it also implements a number of policies aimed to support the market, as well as implementing housing projects directly through specialised government agencies. The most important of these policies and projects are discussed below.

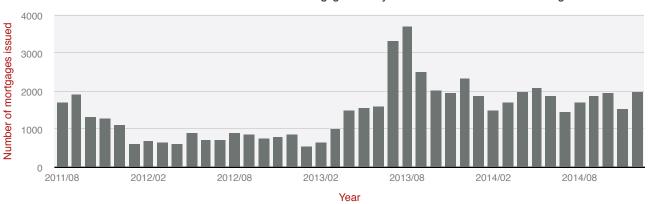
# 2. 8% MORTGAGE PROGRAMME

The mortgage markets are a key component in real estate growth and the Mongolian markets have been showing dramatic upscaling in recent years. The annual growth rate of mortgage loans has accelerated since June 2013, when the government launched the "Housing Mortgage Program", more popularly known as the "8% mortgage programme" due to its annual interest rate. Targeted at first time buyers, this scheme allowed buyers to purchase a home of less than 80 square metres with just a 30% deposit, over a period of up to 20 years, at an annual interest rate of just 8%. The loan-to-value ratio was subsequently reduced to just 10% in summer 2015, with the Ministry of Construction gaining parliamentary approval to link pension funds to market mortgages to finance this. On top of this, the Government raised the possibility of abandoning the 80 square metre size limit.<sup>17</sup>

With banks normally issuing mortgages at rates of between 15% and 25%, it is no surprise that it has proved popular. The success of this scheme, backed by Government funds from the Chinggis Bond release, has led to dramatic increases in outstanding mortgages and numbers of

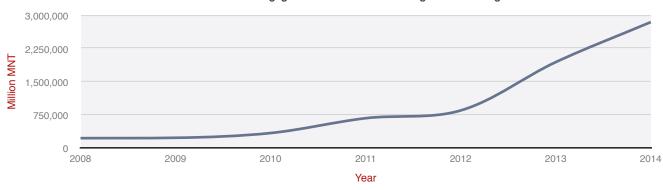
<sup>&</sup>lt;sup>17</sup> "The 80 sq.m Limit for 8% Mortgage Loans Might be Annulled." UB Post. Accessed September 9, 2015. <a href="http://www.infomongolia.com/ct/ci/9160">http://www.infomongolia.com/ct/ci/9160</a>

mortgage borrowers since 2013, although fears remain as to how the Government of Mongolia will continue to extend and finance this scheme now that the first tranche of financing is all but exhausted.



GRAPH 2: Number of Borrowers Issued Mortgage Loan by Month 2011-2014 Q3. Source: Mongolbank.

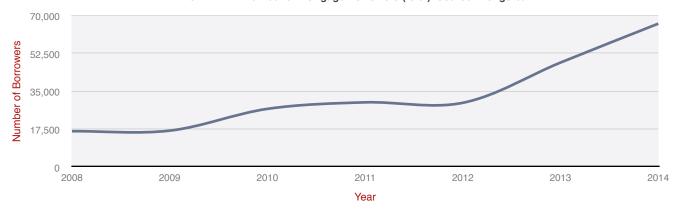
Total loans outstanding grew by 20.1% month on month and 44.9% year on year directly following the introduction of the 8% mortgage scheme. Of mortgage loans outstanding as of December 2014 (the latest month for which statistics are available), 25.6% were issued with the banks' own capital, while 74.4% were issued by the "Housing Mortgage Program." As of December 2014, 98.1% of mortgage loans outstanding have been made in domestic currency and 1.9% have been made in foreign currency. Reporting from December 2014 indicates that around 66,000 borrowers had a mortgage loan.



GRAPH 3: Mortgage Loan Amount Outstanding. Source: Mongolbank.

At the end of December 2014, the term and interest rate of mortgage loans issued ranged between 1 and 20 years and the weighted average term was 15.3 years or 183 months, up from just 100.7 months in 2008. The weighted average rate for loans issued has been on a downward trajectory since 2008, presently standing at around 9.9% down from 19.8% six years ago - a direct result of the programme. The average rate for loans issued with the banks' own capital was 15.5%, though. As would be expected, the capital city makes up a full 79.6% of mortgage lending at this time, with 69% of all borrowers domiciled in Ulaanbaatar (45,770).

borrowers). The average interest rate for loans in the capital is 9.3%, with the average borrowing term higher than the national average, at 210.9 months.



GRAPH 4: Number of Mortgage Borrowers (total). Source: Mongolbank.

All in all, this policy is popular but controversial. Although predominantly helping to increase demand, the policy has played an important part in the decision making calculus of developers. Prior to the removal of the size restrictions, for example, developers purposefully included units of less than 80 square metres in their projects. Similarly, affordability assumptions for feasibility studies and internal planning are often predicated on the continued existence of the 8% mortgage programme. Despite these positive impacts, though, there are a number of concerns about the programme. Firstly, it can be argued that it favours middle class or wealthier buyers over low-income segments, as it it these groups which are most able to access the loans. The removal of the size limit on apartments, if it moves forward, would serve to reinforce this impression. These are valid criticisms, and the programme could and should be calibrated so as to better help low-income buyers and promote demand for affordable housing. Finally, there are concerns both about the sustainability of the scheme (which continues to expand) and the potential impact on financial systemic stability (exacerbated by the reduction of the loan-tovalue to just 10%). With mortgage markets still relatively underdeveloped, these concerns are not yet pressing, but if growth continues unabated and if lending conditions remain lenient, then they will pose considerable risk to the real estate sector, and eventually the general economy.

## 3. TOSK

The most direct intervention by the Government in the realm of affordable housing is carried out by the State Housing Corporation (known as TOSK - its Mongolian acronym). TOSK was established in 2006 and, following reform, evolved into a Government implementing agency designed to carry out real estate and supporting infrastructure investments on behalf of the Municipality, the Ministry of Finance, and the Ministry of Construction. Further reform in 2013 gave it a more explicit affordable housing mandate and it is currently responsible to the Prime Minister, with its core mission being "to provide the population with safe, sound and affordable

housing through the implementation of a comprehensive set of policies and activities." The comprehensive nature of its remit means that it is currently involved in construction of both housing and infrastructure, management and disbursement of a state-owned housing fund, renting and selling of developments, and facilitating domestic and foreign investment in housing.

Within Ulaanbaatar it has implemented the Buyant Ukhaa project, a 1,700 unit development located by the airport which was completed in 2014 sold at a discounted price of MNT 1.28 million (\$642)<sup>18</sup> per square metre. It has a number of projects in the pipeline including Buyant Ukhaa II - a 2,600 unit development that is split into two phases, the first of which is near completion - and a block within the large-scale redevelopment of the 7th district, located just north of the city centre. Further projects are planned in the Yarmag area, although these remain at the early stages of the development cycle.

With considerable experience in planning and implementing affordable housing projects, and its ability to act directly and nationally, TOSK is an important supplier of affordable housing within Mongolia. Its biggest constraint lies in financing, but as an executive agency of the Government it is able to attract concessional funding and is working with foreign partners (including ExIm Banks and Development Banks) to attract foreign investment into housing. Although there are concerns about the scale and design of some of its projects (addressed below in section 5.5.), as well as a need to better manage allocation of its units so as to ensure that priority groups' needs are met, TOSK is an asset for the Government and further reform could enhance its contribution to affordable housing provision and ger area redevelopment.

It is important to note that the Municipality of Ulaanbaatar is currently in the process of setting up its own housing corporation (to be known as NOSK). The responsibilities of this organisation, and its relationship to TOSK, are yet to be defined, but avoiding overlap, duplication, and competition between the two will be necessary so as to maximise the value of the scarce resources that the Government of Mongolia is able to spend on affordable housing.

### 4. RENTAL MARKETS

Although Mongolia's real estate market has developed considerably over the last years, the emphasis has been on home ownership, and a significant rental market has yet to come into being. While the balance of rental versus ownership varies from country to country, it is clear that a mix of tenure options is necessary in order to create a liquid and sustainable market - as well as to increase affordability and flexibility for households. With this in mind, the approval by Parliament of the Ministry of Construction's rental market programme this summer was a step in

<sup>&</sup>lt;sup>18</sup> USD amount calculated using the exchange rate of September 6: MNT 1993 - USD 1.

the right direction. Although the mechanics of the proposal are still to be elaborated, the aim is to bring approximately 16,000 rental units online before 2021 - either through development or acquisition.

# 5. MUNICIPALITY OF ULAANBAATAR POLICIES AND PROJECTS

### 1. INTRODUCTION

With political responsibility for Ulaanbaatar shared between the Municipality and the Government, some of the most important policies and projects originate from City Hall. Indeed, the Municipality has proved to be one of the most enthusiastic stakeholders in urban development and has played a central role in shaping Ulaanbaatar through implementation of projects both independently and in cooperation with international partners.

## 2. AFFORDABLE HOUSING STRATEGY

Most recently Ulaanbaatar has adopted an affordable housing strategy developed in cooperation with the Affordable Housing Institute. The strategy elaborates a long-term policy for affordable housing in Ulaanbaatar, and defined the priority group that this paper also adopts - households earning up to 140% of the median monthly household income. It defines three main strategic axes:

- Increasing affordable housing supply options
- Creating sustainable financing mechanisms for affordable housing
- Establishing an institutional and legal framework for affordable housing.

Subsequent to adoption of the strategy (pursuant to a decision made by the City Council in May 2015), the Municipality is responsible for implementing its first elements and is working on a number of priority actions, including officially recognising the target group, establishing an Ulaanbaatar Housing Corporation to lead on implementation and facilitate coordination with the various national and international level stakeholders involved in affordable housing provision, and enforcing the Ulaanbaatar Master Plan's stipulations with regards to land allocation, land use zoning, and housing.

The Municipal Housing Corporation, mentioned briefly above, will be known as NOSK (its Mongolian acronym), and at the time of writing has been set up, although its precise mandate and its relationship with TOSK have yet to de determined. NOSK will undoubtedly play an

important role in affordable housing provision and ger area redevelopment in Ulaanbaatar as it develops in the years to come and, as such, it is important that policymakers learn from past experiences, policies, and projects. It must be given a clear mandate and sufficient resources and tools to provide decent affordable housing that induces socioeconomic benefits. Avoiding overlap and duplication of TOSK's work will be central to this, and a clear functional division of labour and resources should be defined.

#### 3. CITY HOUSING PROGRAMME

The decision to adopt the affordable housing strategy is a positive step as it was formulated taking into account the idiosyncrasies of urban development in Ulaanbaatar. As such, it provides an overarching framework under which a number of complementary activities and interventions can and are taking place. Taken together, these interventions form the City Housing Programme, which integrates all housing related activities - as shown below:

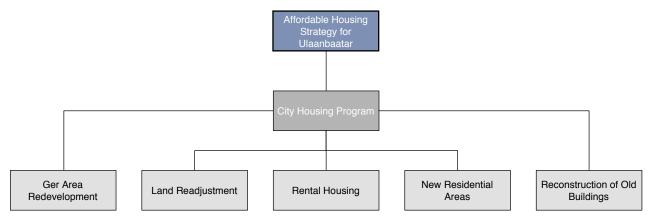


FIGURE 7: CITY HOUSING PROGRAMME. SOURCE: M.A.D.

If fully implemented, these activities will reshape the housing landscape in Ulaanbaatar, by bringing new units online, creating new tenure options, improving living conditions city-wide, and enhancing the participatory mechanisms available to citizens with regards to urban development and planning.

## 4. GER AREA REDEVELOPMENT AND GADA

The most significant of the activities taking place under the aegis of the City Housing Programme - and also a central element of the Master Plan - is that of ger area redevelopment. This element is being implemented by the Ger Area Development Authority, a part of the Muncipality. Under this programme, city authorities have designated 24 locations that are subject to redevelopment. The sites are divided into 75 blocks, which currently house just under

80,000 people and just over 16,000 land plots. These areas cover 1,500 hectares of land across all eight districts of Ulaanbaatar.

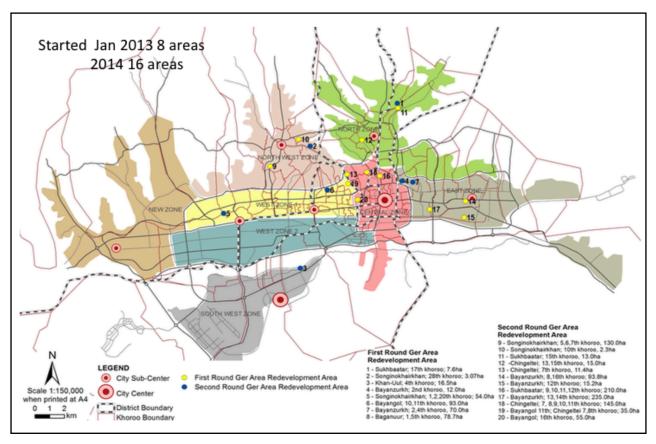


FIGURE 8: GER AREA REDEVELOPMENT PROJECTS. SOURCE: MUNICIPALITY OF ULAANBAATAR

The blocks are to be developed privately, with the Municipality providing investments in trunk infrastructure so as to to make the projects more attractive to private developers and facilitate capital inflow. The blocks are subject to an open tender process, with developers submitting a project programme, financial estimates, and a project timeline. Upon approval by a steering committee of the City, *in situ* land and property owners are polled, and 75% approval on their part is required for the project to progress. The project executor must then purchase the land from its owners, before signing a contract with the Municipality. Thereafter, the project will be granted approval and the developer is obliged to provide detailed plans and estimates.

As of the time of writing, 40 blocks have gone through this process and been approved by the Master Planning Agency. The first blocks came online at the end of 2014 and have sold well (approximately two thirds were sold in pre-sales prior to completion). This strong sales record is indicative of the latent demand for affordable housing in Ulaanbaatar (as well as of the prime location of these blocks - less than two kilometres from the city centre). In total, it is expected that the 24 sites will bring 78,000 new units online. It must be noted, though, that redevelopment is proceeding only gradually and incrementally and the full amount of units will be completed over the next decade (and probably beyond). This slow pace is partially related to

the overall macroeconomic climate in Mongolia, which means that developers are unable to raise capital domestically or abroad to move forward with these projects. Beyond this, though, there have been considerable problems with implementation, relating primarily to land acquisition and the quality of the developments. As a result of these difficulties, the Municipality is, at the time of writing, considering either annulling the redevelopment process and coming up with a new mechanism, or revising the current approach considerably.

Whether the process continues in its current form or in a new guise, the slow pace of development means that the issues associated with the ger areas will continue to affect the city for years to come. Despite this, it also represents an opportunity as it will allow future developers to learn from, and improve on, the experiences of earlier projects - something discussed below in section 4.7.

## 5. LAND ADJUSTMENT AND THE GAHP

The ger area redevelopment discussed above can be seen as a top-down approach to urban development, with the city designating sites for redevelopment and providing legal mechanisms and infrastructure improvements that aim to leverage private investment. The inverse of this approach is found in land readjustment, whose institutional expression is the Ger Area Housing Programme (GAHP) - another implementing agency of the City. GAHP's approach to redevelopment is much more participatory and community-based. It provides information and trainings to residents so as to help them readjust and develop their land. To date it has provided 966 trainings to over 65,000 residents. As a result of these trainings, some 986 community groups have been created and eight groups have gone sufficiently far to have their neighbourhoods designated as land readjustment project sites. These sites are home to 6,700 people and cover approximately 1,500 land plots.

In comparison to GADA, GAHP's projects are yet to be implemented, but development is expected to begin soon. In each of the eight sites, GAHP has worked with local residents to develop detailed local development plans, which will see the construction of various housing modalities - including apartments, townhouses, and detached houses. While these plans reflect residents wishes and desires, relatively little attention has been given to their financial sustainability and to financing arrangements. Various financing options are under discussion, but further research and stakeholder engagement is needed if these projects are to come to fruition.

#### 6. OTHER MUNICIPALITY EFFORTS

Beyond the lynchpin programmes discussed above, the Municipality is also engaged in some smaller interventions to try and improve the city's housing situation. Firstly, it is in the process of making rental housing available. A small number of units (approximately 300) have been made available to vulnerable priority groups, such as the elderly and veterans, and more are scheduled to come online in the coming years. Secondly, it has designated six new areas for development, covering 470 hectares. The Ulaanbaatar Housing Organisation, which is being created as a part of the affordable housing strategy, will implement these projects. Finally, the Municipality has recognised the potential of retrofitting and reconstruction of old buildings. Some 8,600 units are expected to undergo reconstruction or retrofitting so as to increase safety and energy efficiency.

# 6. INTERNATIONAL FINANCIAL INSTITUTION, INTERNATIONAL ORGANISATION, & NON GOVERNMENTAL ORGANISATION PROJECTS

The Affordable Housing Institute is not alone in operating in Mongolia. In addition to national stakeholders, a host of international organisations are involved in shaping its urban spaces. The most significant actors are undoubtedly the Japan International Cooperation Agency (JICA) and the Asian Development Bank (ADB), but the World Bank is scaling up its involvement, while NGOs like the Asia Foundation are involved in specialised fields such as community mapping and urban governance. While all of these organisations have good intentions and expertise to offer, their competing conceptions of Ulaanbaatar's urban future risk undermining the coherence of its development - something that will be addressed below in section 5.9.

JICA,<sup>19</sup> established in Mongolia since 1997, has been heavily involved in urban development. Indeed, one of its three priority areas in its work in-country is enhancing the capacity and function of Ulaanbaatar as an urban centre. It is doing so primarily through improving the city's infrastructure and upgrading urban planning and management capabilities. In this vein, JICA experts helped formulate the city Master Plan, and they have been particularly involved in pushing forward decentralisation initiatives, such as the satellite cities concept, and large-scale infrastructure projects, including the new international airport and the proposed metro project. In addition, JICA also implements a cooperation project to enhance capacity in the urban development sector.

<sup>19</sup> See "JICA: Mongolia." Accessed September 7, 2015. http://www.jica.go.jp/mongolia/english/.

The ADB's involvement<sup>20</sup> in the sector is less broad, but equally as deep, with cooperation centred around two lynchpin projects both of which are set to scale up in the coming years. Firstly, the ADB is working with the Municipality to implement its Urban Services and Ger Areas Development Investment programme. In support to the Master Plan, this project aims to facilitate the development of sub-centres within Ulaanbaatar through investments in infrastructure and urban services with the aim of facilitating densification. Complementary to this is the Sustainable Urban Transport Programme, a multi-tranche loan aimed at creating bus rapid transit corridors so as to improve public transport and reduce congestion. Smaller-scale initiatives include a capacity building project in the urban planning sphere, as well as a new project to help develop a sustainable model of affordable housing provision.<sup>21</sup>

Beyond these major actors, a number of international organisations are involved in a smaller scale. The World Bank, for example, conducted a study on urban service delivery<sup>22</sup> within Ulaanbaatar as well as publishing a report on the city's land administration and management, and is considering upscaling its involvement in the sector. Korea's cooperation agency - KOICA - has implemented projects in urban infrastructure and on land data. As for NGOs the Asia Foundation works closely with the Municipality on a number of urban issues. These include community mapping, aerial mapping, urban economy,<sup>23</sup> and urban services. This cooperation is set to continue, with a particular focus set to be given to urban governance issues.

The cumulative effect of this international involvement is to bring more resources and expertise to bear - both of which are certainly welcome given the scale of the challenge. At the same time, though, coordination between these various organisations is limited at best and with many holding different preconceptions relating to urbanisation, as well as promoting different visions of urban development, they risk undermining the coherence of the city as it grows. This will be elaborated on in section 5.9. below.

# 7. CONCLUSION

The above overview makes clear what a time-lapse video of Ulaanbaatar's skyline would also show: that the city's urban development sector is a dynamic one. Multiple actors - local, national, and international - are involved in implementing large and small scale projects across the city in development, infrastructure, and capacity. With the focus of this paper being on

<sup>&</sup>lt;sup>20</sup> See "Mongolia and ADB." Accessed September 7, 2015. <a href="http://www.adb.org/countries/mongolia/main">http://www.adb.org/countries/mongolia/main</a>.

<sup>&</sup>lt;sup>21</sup> M.A.D. is involved in a number of these projects, having been engaged by the ADB as real estate expert.

<sup>&</sup>lt;sup>22</sup> This study was conducted by M.A.D. for and on behalf of the World Bank.

<sup>&</sup>lt;sup>23</sup> M.A.D. conducted research on this topic and subsequently produced a working paper in collaboration with the Asia Foundation.

affordable housing and ger area redevelopment, the above analysis has mostly excluded pure private sector development which, if included, would result in an even more fluid picture emerging. In either case, though, it is clear that large-scale investment is being made and the city's urban fabric is set to change drastically, albeit gradually. As ger area redevelopment gathers pace, and participatory mechanisms for urban development become more established, the peri-urban areas of Ulaanbaatar will see wholesale change. The trend will be towards densification - something that will have large citywide impacts as it will affect social and economic relations, as well as issues like pollution and congestion; national and municipal efforts to make rental housing more available will help increase the tenancy options available to households and increase the liquidity and flexibility of the market; and international assistance will help drive large-scale infrastructure and investment projects, as well as smaller governance and capacity initiatives, forward.

The cumulative effect of these efforts will be enormous, but to think that they are enough to address the city's lack of decent affordable housing would be complacent. Many of the projects and efforts above suffer from significant flaws that could have pernicious long-term impacts. To see how this might come about, one need only look at major European cities, such as Paris or London, where the development of tower blocks in the post-war decades resulted in unexpected outcomes - including social stratification, increases in urban crime, and - decades later - urban blight. As noted, though, the above projects will come online only gradually, as investment is currently a stream rather than a waterfall. This gives developers and policymakers an invaluable opportunity to learn from ongoing projects to improve future ones. There will inevitably be failures along the way, but if stakeholders are receptive enough then the city's affordable housing gap can be closed and the vision outlined in the Master Plan of making the city healthy, liveable, well governed, and competitive can be achieved. Being aware of the failings and successes of completed and ongoing projects and policies is an essential firs step in this regard.

# 5. CHALLENGES OF AFFORDABLE HOUSING AND GER AREA REDE-VELOPMENT IN ULAANBAATAR

# 1. INTRODUCTION

The issues affecting affordable housing and ger area redevelopment are broad in nature. Many of these also affect private development, while some are unique to affordable housing developments. Together, they span the development cycle and are, to a certain extent, avoidable or manageable. Nevertheless, they have mostly gone unrecognised. The below list is by no means exhaustive, but covers those which are most prominent.

# 2. LACK OF RESEARCH AND VALUATION ISSUES

A major issue in Mongolia's real estate sector is a lack of research. With few professional developers, most projects are implemented independently and without consideration of market dynamics. From our own experience, we see that most developers tend to request research services only midway through the development cycle, when seeking foreign investment. This is problematic as it is, by then, too late to make changes to the project programme that could enhance the chances of market and financial success.

Developing a project without adequate research has a number of ramifications. Firstly, developers run the risk of failing to fill market needs. Given the oversupply in certain market segments discussed in section 3.2., this consigns numerous projects to failure. This is all the more regrettable as many market segments continue to be undersupplied, and attractive opportunities for real estate investment exist despite the deteriorating macroeconomic environment. Beyond this, projects implemented without research tend to miss a number of opportunities to add value.

Simple research tools, such as surveying, can provide powerful insight into customers' preferences, thereby conferring a significant advantage in what is a competitive landscape. This would allow design features preferred by Mongolian buyers to be incorporated, while assessing comparable developments can show factors that help make a development successful - for example sufficient parking or proximity-based retail space. At the project level, well-prepared and presented research is essential to attracting foreign investment, something that is particularly needed given the complex macroeconomic environment currently facing Mongolia.

Beyond research, it must also be noted that there are considerable difficulties in valuing land in the ger areas. This is both a result of the underdeveloped nature of the valuation industry in Mongolia, but also of the unique challenges posed by ger district land. With no established methodologies, land purchase negotiations have tended to be protracted and opaque. Indeed, the difficulty of obtaining land has proved one of the major barriers to redevelopment of the ger districts and prompted reconsideration of the whole GADA tendering process discussed in section 4.5.4. Establishing and adopting a common methodology for valuation would go a long way to addressing these problems and facilitating the redevelopment process.

# 3. COST

The cost of implementing the Master Plan and individual housing projects is significant. The price tag for the Master Plan alone comes in at \$16 billion, while individual ger area redevelopment projects have budgets in the hundreds of millions of dollars. With limited financial resources, the Government and Municipality cannot hope to meet these requirements. Attracting private investment from Mongolian developers will be critical, but even then it will not be sufficient. Foreign investment will also need to be mobilised. This represents a considerable challenge given prevailing macroeconomic conditions both domestically and internationally, but ensuring that a stable and investment-friendly legal framework is in place is critical. Revisions to investment laws guarantee the latter, but one of the biggest concerns for foreign investors in Mongolia relates to policy and political stability.<sup>24</sup> Frequent changes in policy and government continue to deter investors, and while stability alone might not be enough if economic conditions continue to deteriorate, it is an indispensable precondition for attracting investment.

At the project level, costs are so high because the affordable nature of the units results in relatively low margins for developers. To compensate for this, they tend to resort to scale - the Buyant Ukhaa II development alone contains 2,600 units. Anything that can be done to reduce construction and operation costs can go a long way in incentivising new supply. To a certain extent this relates back to some of the structural constraints on urban development discussed in section 3.2. - above all those of seasonality, finance, and the cost of labour and materials - but project level interventions, such as pre-fab construction or energy efficient design, can also have an impact, and these will be discussed below in section 6.2. The ultimate aim must be to make development of affordable units as attractive and feasible as possible for private developers so as to fill the gap between public investment and needs with private capital.

<sup>&</sup>lt;sup>24</sup> See Economic Update - Q4 2014. Bottoming Out? M.A.D. Investment Solutions, 2014.

## 4. LOCATION

The potential positive socioeconomic impacts of well-designed and well-located affordable housing were highlighted in section 2.3., and the importance of transit-oriented development was discussed in section 2.4. Urban planners and policymakers are increasingly giving attention to the links between location and socioeconomic impact, but the connection has yet to be fully appreciated in Mongolia. Instead affordable housing is treated mostly as a quantitative rather than a qualitative issue. An attitude of "build it and they will come" prevails. While some developments are well-located - the 7th District redevelopment project is located just over a kilometre North of parliament - others are far removed from the city centre, or located in areas that are likely to decline as key industries or employers are set to relocate. In all cases, though, there is a lack of integration between the developments and public transport plans and investment. While some projects - such as the ADB's ger area project which is designed to complement and be complemented by the BRT scheme - recognise this, the norm is to develop without giving due attention to transport and connectivity issues. This mindset needs to be overhauled if affordable housing and ger area redevelopment are to achieve their full potential in terms of positive socioeconomic impact.

## 5. SCALE AND DIVERSITY

While resorting to scale to compensate for low margins helps mitigate the problem of cost, it creates new problems in and of itself. As noted above, European experiences with large-scale low-cost housing contributed to creating unexpected problems such as increased crime and urban blight. Some of the larger developments risk creating similar outcomes in Mongolia, as they fail to recognise the impacts of scale and to incorporate diversity of design. Plans often see community space and amenities as an afterthought, and the quantitative attitude discussed above prevails, with identical high-rise single-use apartment blocks placed one after the other. When community space is included, it is not at the human scale. This risks undermining community feeling and creating spaces that are unpleasant to live in. Proper attention should thus be given to design and usage. Sufficient community space, along with retail and services, is a must if these developments are to be sustainable, and public amenities must be given greater prominence in the planning process.

Changing focus from the macro to the micro level, a monotony of design also prevails within the tower blocks. Units are predominantly small (c. 25 - 40 square metres) - a necessity given the nature of these developments - but the failure to include larger units will prevent residents from scaling up within the development as their financial circumstances change. Without such an option, residents who wish to improve their housing conditions will be forced to move - something that risks creating social stratification, with households relocating as they get richer.

This would exacerbate the social problems associated with tower block developments, as well as further undermining their liveability. Incorporating a range of unit sizes is therefore also necessary. The new developments should be both mixed use and mixed income so as to fulfil their socioeconomic aims.

# 6. CULTURAL FACTORS

A topic that keeps numerous post-graduate and PHD students occupied is that of the cultural shift that moving from a ger to an apartment entails and necessitates. Similar transitions have taken place elsewhere, but with the ger areas so extensive, the juxtaposition of the two ways of living is particularly pronounced. Many critics of ger area redevelopment claim that it runs contrary to Mongolian tradition and that Mongolians do not wish to see densification. While this is partially true, Mongolians also wish to avoid congestion and pollution and have access to decent public services and utilities. As such, a compromise will have to be found and a certain degree of densification is inevitable. Making the transition from ger to apartment as seamless and attractive as possible is therefore of critical importance. With the first redevelopments only coming online now, there is a significant lack of evidence in this regard, and with developers implementing projects in a top-down manner without resorting to market research and preference surveying, the design features that would deter or attract a first-time apartment dweller are relatively unclear. While M.A.D. has not yet carried out surveys on this topic, anecdotal evidence is illuminating. One discussion on the topic yielded the following insight: that Mongolians moving from gers to apartments dislike the open plan kitchens that are currently in vogue as they do not allow them to keep their food "separate" as is the norm in gers. Whether this is an idiosyncratic preference or a generalisable conclusion is unclear, but the need for more primary evidence, or some sort of feedback loop that will allow for improvements in unit design and layout, is clear.

# 7. ALLOCATION

An issue that is particularly significant when it comes to affordable housing worldwide is that of allocation. Undersupplied by nature, affordable housing tends to be subject to excess demand. With a clear socioeconomic rationale, an allocation mechanism other than price must be determined. In Ulaanbaatar's case, this has only just been done - with the definition of the priority target group of households earning up to 140% of median household income. It is first necessary to ensure that units are allocated only to households fitting this criterion, but even with such a definition demand will still exceed supply. As such, having a transparent and fair allocation mechanism, such as a lottery system or a waiting list, is very important. Such a system has yet to be put in place, and failure to do so risks creating resentment. Experience

from M.A.D.'s own research provides an instructional comparison. Last year we carried out socioeconomic surveys in the ger areas with a view to better understanding economic issues there. While interviewing small business owners, an issue that repeatedly came up was that of finance. These entrepreneurs felt that they had been unfairly denied loans and expressed frustration with the banks, who they felt determined their lending priorities based on personal preference. When we approached the banks, however, they related to us the difficulty they have in assessing risk and of obtaining suitable collateral in the ger districts. The result was a lack of trust and the growth of considerable resentment - both of which could be mitigated through increased transparency and communication. Preventing a similar dynamic emerging when it comes to affordable housing must be a priority, and fair and transparent allocation mechanisms are the only way to do this and must be developed and put in place as soon as possible.

# 8. ENERGY AND INFRASTRUCTURE

As noted previously, Ulaanbaatar's power capacity is already close to being overburdened. In addition, it is inefficient, with large-scale losses during distribution. Intensified construction and the connection of thousands of new units to the grid will only exacerbate the capacity issues. Although new supply is set to come online in the next years, there is a risk of demand overwhelming supply before then. The same holds true of the heating system, which is already close to capacity. Ensuring that there is sufficient supply to meet forecast demand for utilities must therefore be a priority for the Municipality and Government.

# 9. COHERENCY OF URBAN GROWTH

As has already been alluded to, coordination is found wanting in urban development processes in Ulaanbaatar. With diverse actors from different sectors implementing a large number of projects across the city, this is perhaps inevitable. In theory, all of these actors and projects should conform to the vision outlined in the Master Plan. However, the Master Plan is sufficiently broad to allow individual actors to emphasise different aspects and facets of urban planning and development as they see fit. With each organisation having its own preconceptions, biases, and preferences, the result is that different visions are being pushed and promoted - which risks undermining the coherency of Ulaanbaatar's development by preventing any one vision from being effectively achieved. One does not have to look far to realise how Ulaanbaatar is being pulled between competing visions. The Master Plan, for example, emphasises both decentralisation within the city, as well as decentralisation through the growth of satellite cities. With only 1.37 million inhabitants, it is not clear if both of these can be achieved. Further examples can be found in transport - should Ulaanbaatar invest in a metro or should it create bus rapid transit corridors? Tensions also exist with regard to density, with

some actors seeing densification as the only way to affordable extend infrastructure and others seeing it as unnecessary and unwanted. Regardless of the example, it is clear that there is a need for greater coordination between the different local, national, and international actors that are involved in urban development. This is not to say that a rigid and unalterable development plan must be followed, but rather that there is a need to ensure that policies and projects do not detract from others. Without such efforts, Ulaanbaatar runs the risk of becoming a confused city caught between competing priorities in which no single vision is achieved.

# 10. CONCLUSION

With ger area redevelopment and affordable housing set to have impacts that will shape Ulaanbaatar for decades to come, the opportunity cost of errors is significant. As such, recognising the issues associated with new developments and taking steps to mitigate them is critical. With proper research, cost control, attention to location and design, and transparent allocation mechanisms, affordable housing can be both a market and a socioeconomic success. Without due attention, however, these developments risk failing on both counts. Beyond this, the need for sustained investment in infrastructure is also a prerequisite for continued development of the city. At the most basic level, there needs to be a change in mindset on the part of policymakers and developers. As this paper aims to show, affordable housing goes well beyond issues of quantity. It is not just a question of building new units. This has yet to be realised in Mongolia, and it is vital that it is before plans and decisions that cannot be altered are made and the next wave of developments come online. The extent to which these issues are recognised and addressed will determine how and whether Ulaanbaatar's affordability challenge is met. Beyond addressing the above issues on an individual basis, there are systemic level changes that can and should be implemented to boost both the supply of affordable housing, as well as its quality so as to induce positive and sustainable socioeconomic change.

# 6. STEPS TO IMPROVE

## 1. INTRODUCTION

In section 2, various tools for supplying affordable housing were discussed and the question of delivery was also broached. The Mongolian context was then considered in detail. It is now necessary to combine the two levels of analysis so as to consider how tools and delivery might be improved so as to both increase the supply and quality of affordable housing and ger area redevelopment. There is no single tool or delivery mechanism that is sufficient for the job. Instead, multiple mechanisms and delivery modalities will be needed in order to meet the challenge. Mongolia will have to adopt and combine innovative approaches that have been tried and tested around the world in order to meet the challenge and close the affordability gap.

# 2. TOOLS

# 1. LAND

Uniquely amongst developing countries, availability of land is not a major issue in Mongolia. Rather, the main problem is one of plenty. Indeed, land is badly managed, meaning that there is significant room for improving policies to encourage development and deliver affordable housing.

- Firstly, there is a clear need for transit-oriented development to be incorporated as a major principle of affordable housing delivery. The ongoing ADB ger area investment pilot project has recognised this and combines bus rapid transit development with improvements in infrastructure and densification. Public authorities have yet to fully embrace this principle, and must therefore work to ensure that transit-oriented development forms an important part of affordable housing and ger area redevelopment policy.
- With regards to releasing public land, there are numerous deficiencies in the land administration and management system. Most obviously, there is no complete and accurate information on publicly owned land parcels. Establishing such a record is essential if land is to be allocated efficiently and effectively. What's more, when public land is released, the process is highly inefficient, done through direct allocation rather than by auctioning. A recent World Bank report<sup>25</sup> on land administration and management in Ulaanbaatar estimated that auctioning surplus

<sup>&</sup>lt;sup>25</sup> See Land Administration and Management in Ulaanbaatar, Mongolia. World Bank, 2015.

land could generate funds equivalent to 25% of the Municipality's 2012 budget for the next 20 years.

- Idle land suffers from a similarly inefficient administration and management structure. As for public land, there is no complete and coherent database, making it difficult to clearly and quickly establish ownership. More importantly, there are no penalties for leaving land idle. Given the relatively small amount of land that is connected to infrastructure and the growing problem of the ger areas, this is unacceptable. In addition to establishing a coherent and complete cadastral basis, there is a need to penalise non-development through a land tax. A modest levy could generate significant revenues for the Government, as well as encouraging development.
- The most important tool that public authorities can adopt in their affordable housing provision efforts is that of inclusionary planning. Inclusionary planning or zoning refers to regulations that require a given share of a development to be affordable to moderate income groups. Given the mismatch between demand and supply that affects the Ulaanbaatar property market, the adoption of inclusionary planning principles is necessary to help balance and stabilise the market. Beyond this price element, planning rules should also be used to encourage development in certain areas of the city (for example around key transit hubs), while density bonuses can be granted to developers in exchange for provision of affordable units. Such rules would both provide affordable housing as well as preventing social segregation. In addition, increased density would make the provision of urban infrastructure and services much more affordable to the city one of the major problems of ger area redevelopment.

## 2. DEVELOPMENT

Given the issue of seasonality and the difficulties and costs associated with importing materials, managing the development cycle as effectively as possible is critical if a project is to be financially viable and successful. It is even more critical, though, in affordable housing provision. With margins on such development being considerably lower than mid-to-high end developments, any cost reductions achieved through efficiencies or innovation can significantly improve the financial incentive to invest in affordable housing. There are many potential areas in which savings can be found. Firstly, standardisation of things such as heating pipes and connections would help reduce costs for all developers. Secondly, the formation of a developers' consortium would help reduce the costs of construction materials. Addressing the anomaly whereby most developers are also suppliers of construction materials (and in some cases also demolition companies) would also help reduce costs. A significant area of intervention relates to pre-fabricated parts. With the initial investment required to develop a pre-fab production line being high, it is not viable for any single developer. If the Government could provide viability-gap funding, or bring together enough developers, then such a plant might become viable. Not only would this add to the Mongolian economy, it would also reduce the

time required to complete a development significantly by allowing for production during the winter. Development of such a plant would significantly increase the viability of affordable housing provision.

### 3. OPERATIONS

In a similar vein, savings in operations and maintenance would also increase the viability of affordable housing development. Most obviously, given the harsh Mongolian winters, there is significant room for investment in energy efficient technologies. A 2014 report<sup>26</sup> funded by the European Union, for example, found that improving the heating system and insulation of a precast concrete panel building (a typical construction found across Mongolia) would decrease its heat consumption by an incredible 79%. The necessary investment would pay for itself in only 8.6 years. As for maintenance, better repair and maintenance capabilities would drastically reduce the depreciation of Mongolian buildings. At present most developers sell buildings without putting a maintenance company in place. This problem is compounded by the lack of homeowners associations. Efforts should be made to facilitate and encourage investment in energy efficient measures either through setting minimum standards or through raising funds for retrofitting of existing blocks. As for maintenance, authorities should ensure that all affordable developments are connected with maintenance companies and contain homeowners associations.

### 4. FINANCE

Finance is an area in which there is significant room for improvement and innovation. In terms of sophistication, the housing and housing finance markets in Mongolia are found wanting, and there is a clear need to make the market more developed and to increase housing finance possibilities for both consumers and developers. A number of mechanisms can help achieve this end.

Firstly, there is significant room to reduce loan origination costs. Doing so would require both improved assessment and appraisal. The risk assessment capabilities of Mongolian banks are relatively underdeveloped, above all when it comes to assessing the risk of ger area residents - those most in need of affordable housing solutions. The Government could help improve risk assessment and appraisal techniques through adoption of common standards and practices. This would facilitate the move from ger area to apartment and increase the overall affordability of housing. To reinforce this point, it must be noted that studies show that ger area residents have assets, the problem is simply liquidating or leveraging them. A 2010

<sup>&</sup>lt;sup>26</sup> Energy Audits of Chosen Typical Buildings in Mongolia. Switch Asia Programme, 2014.

World Bank study, for example, found that mid-tier ger area residents had assets worth between MNT 8.74 million and MNT 24.83 million (c. \$4,400 and \$12,500). Any improvements in assessment and appraisal could help this money be leveraged into housing.

- Efforts can also be made to reduce the cost of funding mortgages. The introduction of the subsidised 8% mortgage was an attempt to do this. While the principle behind this programme is sound, it is not specific or targeted enough to really help those who need it most and, at the same time, has led to an upsurge in mortgages that threatens the systemic stability of the financial system. There is, therefore, a clear need to reduce the scope of this programme so as to make it more sustainable and to ensure that it helps those who need it most. A secondary possibility for achieving this goal, and one that could also play a key role in developing the financial system, is that of issuing innovative structured vehicles and products, such as Real Estate Investment Trusts (REITs) or Special Purpose Vehicles (SPVs) or funds. These do not yet exist in Mongolia, but could help raise funds that could be used to finance specific projects or be put towards the purchase of existing stock or the development of a rental market.
- The third area in which there is room for improvement is that of leveraging collective savings. The Government could put in place measures to incentivise contractual collective saving schemes that would be used to reduce rates. In a similar vein to reducing mortgage costs, such products would also help develop financial markets.
- In addition to purely financial innovations, there are a number of steps that need to be taken to improve the overall financing context for development in Mongolia. Most significantly, authorities should do all that they can to reduce developer risk, as it is primarily the high level of risk that pushes developers into mid-and-high end construction, resulting in the lack of affordable housing supply in the first place. Government funds that are raised could be used to buy units, for example. This would significantly help the business case for affordable housing provision. Similarly, the Government could provide viability gap funding to allow private developers to pursue affordable housing projects. It should also play a role in spearheading the streamlining of the permitting process, as this would significantly help developers and improve the overall market context. Finally, the Government could do more to help secure land for development, and reduce developer risk through innovative tools such as collecting land payment only after completion and sale.
- Finally, and perhaps most importantly, it is imperative that a sustainable rental market be created. At present the emphasis has been too heavily put on homeownership. Rental markets are an important contributor to sustainable and liquid markets and, at present, exist only in a limited form in Mongolia. The Ministry of Construction's rental programme is a positive step in this regard, but it (and TOSK) should also offer hybrid shared ownership systems (lease-to-buy), which would offer a halfway house between the two tenure modalities. The development of a

rental market would be a significant boon to the housing sector, as well as to the economy at large.

Taken together, then, there are a number of tools that could and should be used in order to provide and incentivise provision of decent affordable housing. These tools would not only address national housing needs and the socioeconomic issues that arise from the lack of decent affordable housing, but they could also help develop financial markets, and contribute to overall economic growth. To be able to do so, however, it is imperative that there be an effective delivery platform - one that engages the community, employs multiple methods of delivery, is funded sustainably, and is well governed.

### 3. DELIVERY

# 1. COMMUNITY ENGAGEMENT

The first step in community engagement is determining exactly which groups should be eligible or prioritised for affordable housing. While the Municipality has adopted the priority target of households earning up to 140% of median income, this criterion has not been applied to purchase of affordable units. At present, even foreigners can purchase affordable housing units produced by TOSK or through ger area redevelopment. While we would not recommend restrictive measures on purchasing, it is clear that there is a need to prioritise allocation of housing to this group. Publicly delivered development should aim to supply housing primarily to this group, while a portion of the units brought online through the ger area redevelopment programme should be reserved for this demographic.

# 2. DELIVERY MODEL

At present, provision of affordable housing is primarily public-sector led, with TOSK implementing projects. While there is nothing wrong with public-sector led delivery, the resources of the state are currently under strain, and there is clearly room to experiment with more innovative (and cost-effective) modalities. The ger area redevelopment approach, a classic Public Private Partnership (PPP) model in which land and infrastructure investments are used by public authorities to leverage private investment, should be sustained and encouraged, and more money needs to be found to finance these investments. This could be done through use of the financing tools discussed above (REITs and SPVs). Similarly, the Government could also adopt developer risk reduction mechanisms, such as occupancy or rental guarantees, to make PPPs more attractive or to incentivise private-led development. There is no need to stick

to one delivery model, and the ability to provide affordable housing could be greatly enhanced by the adoption of a multimodal and flexible delivery model.

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### 4. FUNDING

As has already been noted, there is considerable room to innovate in funding affordable housing provision. It is our view that land-value capture presents a significant opportunity to the state, and should be adopted. If the Municipality were granted the ability to grant a density bonus to developers, above all in centrally located areas, then it would essentially be able to provide affordable units for free. These would be well located and would have the added bonus of preventing social segregation. Beyond this, we would argue that cross-subsidies - that is to say the 8% mortgage program - have been too liberally employed. While we have no objection to cross-subsidies in principle, the wide scope of the 8% mortgage programme means that it does not solely address the affordable housing gap, but instead is unsustainable to finance and poses a systemic risk to financial stability. It is our opinion that this scheme should be remodelled so as to be more precisely targeted, as should any future cross-subsidies. The same applies to use of the public budget to provide direct support for affordable housing purchase or rental. One interesting mechanism that could be adopted is that of viability gap funding - providing investment to make the economics of an affordable housing development viable to a developer. This would be a relatively cost effective way of incentivising construction of affordable housing developments, and would have the added advantage of engaging the private sector further in the process.

#### 5. GOVERNANCE

As noted, the key issue of governance is of making it as easy and quick as possible to provide affordable housing so as to increase its viability. There is a clear need to streamline the permitting processes. Finally, we believe that there is room for enhanced coordination when it comes to delivery of affordable housing. As had been made clear, the scale of the challenge means that multiple private and public sector entities will be involved in any single development. As such the Government and Municipality could set up a delivery unit, or allocate this function to an existing entity such as TOSK or NOSK, so as to coordinate the different actors and drive projects forward as quickly as possible.

# 4. STRUCTURING A MORE EFFECTIVE INTERVENTION

In its entirety, the range of policies outlined above may seem complex or confusing, but these tools and structures offer an opportunity to provide affordable housing more effectively and efficiently, and to enhance cost effectiveness. As the above sections have made clear, the onus of doing so lies with the Government and Municipality. They must create a framework that ensures that the quality and quantity of affordable housing are increased. However, this does not mean that it needs to mobilise significant financial resources. If it could, then of course this would help address the affordability challenge, but in a time of macroeconomic challenges and limited room for fiscal manoeuvre, it will be almost impossible for the relevant authorities to do so. In any case, just as affordable housing is not just a question of quantity but of quality, throwing fiscal resources at the problem will not necessarily solve the problems of affordable housing and ger area redevelopment. Conversely, the absence of fiscal resources will not necessarily detract from the Government's ability to structure a more effective intervention. Indeed, its priorities should be to create a conducive legal and regulatory framework, as well as to maximise the incentives for private developers. If the above tools are adopted, and a more effective delivery platform built, then the quality and quantity of affordable units will be changed for the better.

By leveraging a range of tools, policies, and financing structures to deliver affordable housing through multiple modalities, the supply of well-placed and well-designed affordable housing would increase significantly - allowing the socioeconomic aims of enhancing productivity and liveability, enabling labour mobility and income growth, and driving growth of urban output to be achieved. More private investment would also be attracted, reducing the risk and liabilities for the state and enhancing choice and competition within the affordable housing market. Beyond the policies that directly affect affordable housing, efforts to develop a coherent land database, common building standards, a developers' consortium, and the introduction of a land tax would help the market mature and move in a more sustainable direction, while collaboration with the financial sector on assessment and appraisal methodologies for low-income borrowers would help not only the real estate sector, but also the informal economy, SMEs, and the financial sector itself.

# 7. CONCLUSION

Despite its focus on affordable housing, this paper has, by necessity, broached a wide range of topics relating to urban development - drawing on both international and domestic experience. In and of itself, this is indicative of the web of interconnections and dependent relationships in the middle of which affordable housing lies. In the context of Ulaanbaatar, for example, it is impossible to divorce questions of affordability from the structural constraints on urban development discussed in section 3.2. or the development problems associated with the ger areas and the attempts to redevelop them considered in section 3.3. In addition to these issues, the challenges associated with developing decent affordable housing and possible tools and mechanisms for improving the quality and quantity of supply have also been considered. In concluding, it is necessary to bring all these strands together and to return to the initial aim of this paper - providing a comprehensive assessment of affordable housing and ger area redevelopment in Ulaanbaatar.

It is clear that Ulaanbaatar is entering a new stage of development, the primary focus of which will be development of affordable housing - delivered in large part through ger area redevelopment. The large capital inflows experienced by the real estate sector as a result of the country's mining boom drove one cycle of development. The structural constraints that predominate in Mongolia led to these flows being funnelled into mid-to-high end development in the residential, commercial, and retail asset classes, all of which were undersupplied prior to the boom. The time-lag between investment in real estate and realisation of a project, combined with the macroeconomic slowdown, have since served to create an oversupply in these classes, the absorption of which will continue over the next few years. At the same time, investments in ger area redevelopment and affordable housing are beginning to scale up, marking the inception of a new stage in the city's development.

With 60% of the city's population still living in ger districts, the scale of this development will be considerably higher, requiring larger projects, significant financial resources, and extended timelines. It will be a longer process that will continue for decades. In addition, the spatial, social, and economic implications of this development will combine to reshape Ulaanbaatar in many ways, some of which are not yet apparent or imaginable. As a result, it represents both an opportunity and a challenge. That policymakers and international partners have recognised the scale and significance of the challenge is therefore positive. The National Development Strategy and the Ulaanbaatar Master Plan provide an overarching framework that should direct the efforts of the many stakeholders of the city's urban development. As always, though, the devil is in the detail, and failures in implementation and realisation have dogged many projects and sectors in Mongolia, real estate included.

With the first affordable housing projects and ger area redevelopments coming online now, this is all too apparent. Projects proceed with little or no research, and the affordable housing problem is treated as one of quantity, and little thought is given to the location of these developments, to incorporating public amenities, and to how to prevent social and economic stratification. If considered at all, the socioeconomic aspects of affordable housing are treated more as an afterthought - addressed perfunctorily. While such an approach may help meet short-term targets relating to quantity and supply, the potential benefits of affordable housing are so much greater than this. Fortunately, we are only at the beginning of this new phase of development and the units that have come online to date are negligible in relation to the number of units that will enter the market in the coming years. What's more, the pace of development will be much more gradual than that seen over the last five years.

As a result, developers and policymakers are faced with both a challenge and an opportunity. The challenge of learning from international practices and the failures and successes of ongoing projects, and the opportunity to learn from these and incorporate them into new development so as to meet housing needs and create new socioeconomic benefits and possibilities that will create value well in excess of the initial investment. The importance of grasping this opportunity is thus high - a once in a generation opportunity even. With Ulaanbaatar likely to remain the country's only real urban centre, the opportunity cost of failure and the ramifications of success will be magnified and multiplied. Now is the time for policymakers and developers to make the shift from a quantitative approach to affordable housing and ger area redevelopment to a more nuanced and refined one. Now is the time to establish frameworks, systems, and practices that not only help increase supply, but also emphasise location, inclusion, and opportunity.

Being at the centre of web of interconnected factors and considerations is what makes affordable housing so complex an issue. This paper has shown that this is certainly true in Mongolia, where the country's idiosyncrasies have resulted in a unique form and expression of urban development and a lack of affordable housing. Fortunately, the knife cuts both ways and cause and effect are bidirectional. As a result, well thought out investments in affordable housing will be able to have wide-ranging social and economic impacts. It is now necessary to work to turn this into a reality and to make sure that the opportunity presented to Ulaanbaatar and Mongolia does not pass us by.

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