RICS insight paper

International models for delivery of affordable housing in Asia

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Glossary

All data are from 2016 unless otherwise stated.

Economic indicators	
Gini coefficient (income)	Measure of the deviation of the distribution of income among individuals or households within a country from a perfectly equal distribution. A value of 0 represents absolute equality; a value of 100 represents absolute inequality.
GNI growth	Gross national income (GNI) growth is a measure of the percentage annual growth of GNI.
GNI per head	The GNI per head is the US dollar value of a country's final income in a year, divided by its population. It reflects the average income of a country's citizens. GNI per capita is used by the World Bank for classifying countries into one of several income groups: low-income, lower-middle-income, upper-middle-income, and high-income (see World Bank level). A country's GNI per head tends to be closely linked with other indicators that measure the social, economic and environmental well-being of the country and its people.
World Bank level	The World Bank classifies economies on a number of different levels. As of 1 July 2018, the new thresholds for classification by income per head are: **Threshold** — **GNI/capita (current US$)** Low-income — <995 Lower-middle-income — 996 – 3,895 Upper-middle-income — 3,896 – 12,055 High-income — >12,056
Environmental indicators	
CO_2 emissions per capita	Carbon dioxide (CO_2) emissions are those stemming from the burning of fossil fuels and the manufacture of cement. They include carbon dioxide produced during the consumption of solid, liquid and gas fuels and gas flaring. A country's CO_2 emissions can be expressed in metric tonnes per head of population.

Urban population sanitation	The percentage of the population with at least adequate access to excreta disposal facilities that can effectively prevent human, animal and insect contact with excreta. Improved facilities range from simple but protected pit latrines to flush toilets with a sewerage connection.
Urban population water	The percentage of the urban population using an improved drinking water source. The improved drinking water source includes piped water on premises (a piped household water connection located inside the user's dwelling, plot or yard), and other improved drinking water sources (public taps or standpipes, tube wells or boreholes, protected dug wells, protected springs and rainwater collection).
Human development indicators	
Corruption Perceptions Index	An annual index produced by Transparency International (TI) based on perceptions of corruption. The index, which ranks 180 countries and territories by their perceived levels of public sector corruption according to experts and businesspeople, uses a scale of 0 to 100, where 0 is highly corrupt and 100 is very clean. In 2017, the index found that more than two-thirds of countries score below 50.
Human Development Index	A summary measure of average achievement in key dimensions of human development: a long and healthy life, being knowledgeable and having a decent standard of living. The HDI is the geometric mean of normalised indices for each of the three dimensions. The HDI indicator may usefully be compared with GNI per capita – a purely economic indicator.
Life expectancy (F/M)	Life expectancy (F/M) is a composite of female and male life expectancy at birth figures and is based on data collected by national agencies and various other sources available to the World Bank.
Population indicators	
Capital (city name) population	Latest census population figure for the capital.
Country – population	Latest census figure for the country's population.
Urban growth – population	Annual population growth expressed as a percentage of total population in the previous year.

Foreword

'Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control.'

Article 25, The Universal Declaration of Human Rights

One of the most critical challenges for national governments throughout the world relates to how expanding populations can best be housed both adequately and affordably. Challenges associated with the provision of housing of any kind, much less affordable housing, have been a hallmark of the rapid rise of many countries and cities in Asia. The lack of affordability in the housing sector is not just a challenge for poorer countries, as it also affects countries with thriving economies. As someone who has spent most of my professional life in Hong Kong and China, as well as working within the surrounding Asia region, I have seen this situation evolving firsthand. This insight paper reviews the situation associated with affordable housing within Asia with a view to identifying those countries that have formulated effective responses to the issue of housing affordability, as well as those that are pursuing policies which are having a limited demonstrable impact.

RICS professionals are involved in all aspects of housing delivery, including land assembly, planning, construction, valuation and the eventual sale and leasing of residential apartments and houses. RICS members operating through the public or private sectors play a key role in delivering major housing projects. However, it is important to go beyond the operational aspects of the residential sector to understand the different institutional frameworks associated with housing delivery that exist within individual countries. Decisions relating to the structure and composition of these frameworks ultimately determine how national resources are to be allocated, and therefore the effectiveness of any response to the challenges associated with housing affordability.

One of the basic principles of international development and global governance agencies is that economic growth will deliver the fundamental conditions to facilitate the improvement of housing welfare. Measures based on this underlying principle are aligned with the objectives of individual governments to reduce national debt. In rapidly growing economies, extreme levels of unaffordability can result from very strong demand combined with restricted supply. Alternatively, economically weak countries with rapid population growth are experiencing a shortfall in affordable housing, which has become almost impossible to quantify.

The paper refers to a wide range of cultures, scales, systems, experiences and responses to the affordable housing challenge in Asia. In China and India, the two most populous countries in the world, the challenge has been approached in completely different ways and with distinctly different outcomes. Singapore, with a gross national income (GNI) per capita of $52,000, has been producing approximately 25,000 units of public housing per annum, while its much larger neighbour Indonesia, with a GNI per capita of $3,400, scarcely produces any form of subsidised housing. This paper attempts to clarify the fundamental factors behind some of these numbers and whether policy makers have access to the right indicators to make informed choices. It also highlights the fact that, in the case of some of the countries that were reviewed, there is no reliable data upon which to base policy decisions.

The economic growth model advocated by international policy makers as the universal solution has resulted in a situation that has led to the wearing of face masks in Beijing and which frequently brings traffic to a standstill in Delhi. Choices may be crudely presented as being 'more housing of a lower standard' or 'less housing of a higher standard'. The decision regarding the appropriate model to adopt is one for national governments, but it must be informed by appropriate expertise and an understanding of the long-term consequences of short-term decision making – all within the framework of the United Nations Sustainable Development Goals, to which most governments are signatories. Fundamental to achieving these aims will be the allocation of appropriate levels of land for development, the provision of adequate supporting engineering and social infrastructure, and the dedication of appropriate resources to ensure effective policy execution.

The provision of adequate and affordable housing is clearly an issue that must be addressed as soon as possible in many countries and cities in Asia. RICS therefore publishes this paper as a further contribution to the debate relating to critical urban choices, following the publication of *Cities, health and well-being* (1st edition) RICS insight paper in 2018.

Chris Brooke

RICS President

Executive summary

Aims

The availability of adequate affordable housing is a concern for all Asian countries. A country's history, resource availability and its stage of economic development are key factors that influence the approach taken by Asian governments to provide and fund affordable housing for its people.

This insight paper examines affordable housing provision in eight Asian countries (or regions):

- People's Republic of China (China)
- Hong Kong (a Special Administrative Region of the People's Republic of China)
- India
- Japan
- Malaysia
- Republic of Singapore (Singapore)
- Republic of Korea (South Korea) and
- Thailand.

It also provides a brief overview of the current housing situation and its provision of affordable housing for low-income households in four other Asian countries (for which there is generally less detailed information available):

- Indonesia
- Pakistan
- Philippines and
- Vietnam.

This insight paper aims to identify different national housing models across Asia for delivering affordable housing, in order to see what lessons may be transferable. It raises questions about acceptable standards of affordable housing for different socioeconomic conditions, including tenure security, construction standards and environmental/space standards.

Context

Housing and housing affordability is a matter of increasing importance in the context of rising incomes and aspirations. Governments' capacity to address these issues depend heavily on the existence of an enforceable regulatory framework for the use of land, which provides the baseline for implementing different forms of intervention including in particular subsidies to support housing for lower income households. It also depends on political will and priorities. Asia includes some countries that have been in the forefront of achieving higher housing standards for all but other countries are struggling to put in place regulatory and administrative procedures that can more effectively meet the challenges of rapidly rising housing need and demand. This paper provides short descriptions of the housing situation in a range of

Asian countries and the initiatives that have been put in place to address the issues around achieving the goal of adequate affordable housing for all.

Findings

This paper identifies three models of affordable housing delivery used in Asia:

1 **Public sector-led**: strong public intervention in affordable housing supply with a well-developed financial system (Hong Kong, Singapore, South Korea). This model is central to the high-quality provision of affordable housing in Hong Kong and Singapore. Public intervention also dominated the position in South Korea for decades after the war. However, in recent times there has been a declining role for South Korea's central government.

2 **Private sector-led**: strong private sector involvement in affordable housing supply, with a developed financial system for both developers and consumers. This group includes China, Japan, Malaysia and Thailand, all of whom have (or, in the case of Japan, had) significant affordable housing policies. China is atypical in this group, because it has government-owned land, but market players dominate housing provision and allocation in all four countries.

3 **Informal delivery model**: dominated by informal housing systems and underdeveloped financial systems, even though there are some government policies in place. This group includes India, Indonesia, Pakistan, the Philippines and Vietnam, as well as other countries not included in the study (such as Bangladesh).

Overall, owner-occupation is seen as the long-term goal throughout Asia, even where governments have a history of direct involvement in land allocation and housing investment.

1 Introduction

This paper examines the available evidence on the delivery of affordable housing in eight Asian countries (or regions), as shown in Figure 1:

- People's Republic of China (China)
- Hong Kong (a Special Administrative Region of the People's Republic of China)
- India
- Japan
- Malaysia
- Republic of Singapore (Singapore)
- Republic of Korea (South Korea) and
- Thailand.

It also gives a brief overview of the current housing situation and the delivery of housing to low-income households in four other Asian countries (Figure 1) where there is less detailed information available (and less government involvement in affordable housing provision):

- Indonesia
- Pakistan
- Philippines and
- Vietnam.

Figure 1: Country identification map

These countries have populations ranging from 5.6m to 1.4bn and, taken together, they account for around 40 per cent of the world's population.

Table 1 provides an overview of each country with respect to the major attributes of their housing systems. This allows for comparison with respect to each attribute, such as land ownership and the instruments used to increase affordable housing delivery.

	State as housing provider	National housing policy	Main strategies	Land ownership	Delivery arrangements	Supplier of affordable/ public housing	Source of finance	Who gets affordable/ public housing
China	Limited; sale of state-owned public housing stock	Two-tier public housing system: housing built for sale and housing built for rent	Promote home ownership through sale of public housing and housing built for sale provided by developers	Owned by the state and leased to individuals	Decentralised to local governments	Mainly provided by commercial developers	Revenues generated from land sales	Newly emerged middle-class households
Hong Kong	Provider of public rental housing, but a declining provision of subsidised owner-occupied housing	Large-scale public housing programme	Promote home ownership; continued direct provision of public rental housing	Owned by the government	Directly provided by the government	Provision of public housing by the government	Revenues generated from land sales	Sitting public rental tenants and private rental tenants who meet the income thresholds
India	Limited; the first large-scale housing mission was launched in 2005	Executed in successive five-year plans	Various housing programmes for households in the economically weaker sections (EWS) and low-income groups	Individual land ownership but a lack of clear land titles	Decentralised to local governments	Mainly provided by commercial developers	Limited funding from the central government, promote public-private partnership	Low- to middle-income households, instead of the very poor
Japan	Withdrew its role in the provision of affordable housing from 2004	None	Promote home ownership	Individual land ownership	Decentralised to local governments	Mainly provided by commercial developers	Very limited government funding	Households who have suffered from natural disasters

	State as housing provider	National housing policy	Main strategies	Land ownership	Delivery arrangements	Supplier of affordable/ public housing	Source of finance	Who gets affordable/ public housing
Malaysia	A range of affordable housing schemes that include low-, low-medium-, medium-, and high-cost housing	Executed in successive five-year plans	Promote home ownership by setting the ceiling price of low-cost housing	Individual land ownership; strict land use regulations	Decentralised to local governments	Mainly provided by commercial developers	Limited funding from the central government, promote public-private partnership	Initially the poor/ low-income households, but after 2011, middle-income households
Singapore	Strong provider of public rental housing and subsidised owner-occupied housing	Large-scale public housing and subsidised home ownership programme	Promote home ownership; indirectly control housing prices in private housing market	Owned by the government	Directly provided by the government	Mainly provided by the Housing Development Board (HDB)	Central Provident Fund (CPF)	All resident households
South Korea	Strong provider of owner-occupied housing, but a declining provision of public rental housing	Focus on housing construction for owner-occupation and non-permanent public rental	Promote home ownership through construction of owner-occupied housing by government agencies	*Residential Land Development Promotion Act* 1980 to give the state the power to acquire land for public housing	Public-sector agencies	Korea Land and Housing Corporation's provision for housing for sale	Funding from the central government	A shift from the poor to low- to middle-income households

	State as housing provider	National housing policy	Main strategies	Land ownership	Delivery arrangements	Supplier of affordable/public housing	Source of finance	Who gets affordable/public housing
Thailand	Limited; no comprehensive housing policy	Focus on provision of housing loans for home purchase	Promote home ownership and the establishment of community networks to build low-cost housing	Individual land ownership	Decentralised to local governments	All housing is provided by the private sector	Limited funding from the central government, promote public-private/community partnership	Middle-income households
Indonesia	Very limited; no finance to acquire land	National programme of 1,000 towers	Tax incentives for developers	Individual land ownership; major problems with land registration	Local government provision of land to large land owners with little outcome	Mainly self-build housing	Very limited government funding	Middle-income households
Philippines	Limited; set up local government units (LGUs) in 1992 to legitimise the rights of the urban poor	Impose quota on all private developments for social housing by cost or by area	Squatter upgrading; joint ventures with LGUs; community mortgage programme	Highly regulated private ownership restricted to Filipinos	Require private developers to provide social housing on all housing developments	Mainly provided by commercial developers	Private developer through in-kind developer contribution	No clear allocation principles

	State as housing provider	National housing policy	Main strategies	Land ownership	Delivery arrangements	Supplier of affordable/ public housing	Source of finance	Who gets affordable/ public housing
Pakistan	Significant attempts at national and state levels	2013 national housing policy - 50,000 housing units in five years	Improve land records; land transaction reforms; encourage private sector	Individual land ownership	National and regional government but with limited capacity	Mainly informal housing		
Vietnam	Limited; mainly self-build; sale of state-owned housing	Privatisation and legalise self-build	Tax incentives and deregulation	State ownership but right to use	Self-build	Mainly self-build housing	Via state land ownership	Sitting tenants of publicly owned housing

Table 1: Country-by-country overview of affordable housing provision

Table 2 gives some indication of the extent to which housing delivery relates to need. Different countries have different measures: in general, those with better housing conditions are more likely and better able to provide an indication of the extent to which the need for affordable housing is being met, while those with more general housing problems tend to measure absolute requirements.

The countries in bold provide some measure of the extent to which government support is helping to alleviate need. Only Singapore has a system in place that can meet most emerging needs: even the scale of government intervention in Hong Kong cannot fully keep up with requirements. Japan has withdrawn from policies that directly provide such housing, while Thailand and South Korea depend heavily on the private sector. The data for other countries reflects government estimates of need and therefore local assumptions about acceptable housing.

Country	Non-market housing output as a percentage of need (bolded) or absolute shortage (percentage of households inadequately housed)
Singapore	**80%**
Hong Kong	**43%**
South Korea	**12.5%**
Japan	**6%**
Thailand	**4%**
Malaysia	14%
India	20%
China	9%
Philippines	22%
Indonesia	8%
Pakistan	34%
Vietnam	21%

Table 2: Housing shortages across countries

Note: these figures are only indicative and should be treated with care.

1.1 Affordable housing delivery models

While the details vary, it is possible to discern three models of affordable housing delivery:

1. **public sector model:** government-led with large resources
2. **private sector model:** private-led with government enabling and
3. **informal delivery model:** formalisation programmes that provide a legal and infrastructure framework to support individual investment.

These three models reflect the historical and institutional contexts of the different countries. An important issue is the date when affordable housing began to be provided, because the earlier this was initiated, the more sophisticated and developed the system tends to be. (The exception to this is Vietnam, which has followed the European transition model and moved away from state to private ownership.)

1.1.1 Public sector model – direct involvement

The main features of this model are the prominence of a national housing policy with an accompanying national housing body to implement it. This model has a clear regulatory framework and a process for registration of title. The state plays a very active role in the provision of affordable housing. The mortgage finance system is well-developed and regulated to ensure that home ownership is affordable.

The two best examples are both small but densely populated island states where the government has taken the lead for decades in terms of policy, land provision and finance. Their approach is lauded worldwide, but it is not easily transferred to larger and more diverse systems. Moreover, the necessary institutions were put in place early in the development of these highly successful economies.

Singapore delivers a large-scale public housing programme based on the provision of privately-owned individual units. The owner-occupation rate is some 90 per cent, mostly provided by the public sector. The Housing Development Board (HDB) was set up in 1960, and after ten years it was providing for over one-third of the population. The subsidised home ownership programme was introduced in 1964. The purchaser may use their Central Provident Fund (pension) resources to fund their mortgage. Since 1966, the government has been able to compulsorily acquire any land for public purposes, which in practice tends to be well below market prices. The HDB keeps construction costs low through scale economies, thus keeping home prices low. It is the dominant provider of finance, and so the role of commercial banks is limited. The provision of housing for almost the full range of households remains central to government policy and helps structure urban development and redevelopment.

In Hong Kong, public housing has been provided directly since 1954. Land is owned by the government and auctioned to developers within a clear regulatory framework. The Hong Kong Housing Authority is the largest landlord of public rental housing in the world, with funding coming from the sale of land. In 2016, about 30 per cent of the population were public tenants. However, one of the stated goals of Hong Kong's housing policy is to promote home ownership, so the direct provision of public rental housing is now declining and being replaced by subsidised home ownership. Around 15 per cent of households are now owners of homes subsidised through the Home Ownership Scheme and related programmes.

In the third country in this category, South Korea, the emphasis has been on the supply side, with few demand-side subsidies. The starting point was the Korean National Housing Corporation, which was set up in 1962 to implement the national housing policy through the direct provision of housing. Thereafter, the Korean Land Corporation was set up in 1975 with the objective of developing new towns and implementing the 2m housing construction plan, which was achieved in 2007. The bodies were merged in 2009 to eliminate overlap, with a continuing role to develop public housing for sale and for rent and to implement national housing policy. As in Singapore, housing costs are kept low and prices stabilised via fixed loan-to-value ratios. Starting from 2015, the national government role has been declining and local governments have been given the responsibility to provide affordable housing for young middle-income families. Public housing is now built with a fixed period of tenure (usually five years), after which it is privatised. South Korea's national policy is to promote home ownership.

1.1.2 Private sector model – the use of private sector land, finance and development

The key feature of this model is that the state plays a limited role in the direct provision of affordable housing, and so it relies on the private sector to provide both market and affordable housing as well as loans for house purchase.

There are some important differences between countries. For example, in China and Thailand, state-owned banks are dominant, whereas in Japan and Malaysia, commercial banks are the main providers of finance. China is considered both a transition economy (similar to Eastern European countries) and a developing country, reflecting its urban/rural divide, whereas Japan has long been part of the developed world. However, all countries in this group provide national affordable housing programmes, and delivery is decentralised to local governments. This tends to generate difficult issues in relation to incentives and financing.

The examples in this group are larger countries where infrastructure, rather than housing per se, has tended to be the core government concern. In general, affordability remains a problem for lower-income households: the quality of low-cost homes can be poor, and there are housing shortages in major cities.

In China, the main policy goal is to promote home ownership, but because housing is so expensive there are programmes to promote 'affordable housing' in cities. Originally, all homes were provided by the state, usually in conjunction with places of employment. Housing reform began in 1979 in a small number of pilot areas. In 1991, this was extended across the country, even though housing marketisation had not formally been introduced and public housing co-existed with private housing development. Public housing allocation officially ended in 1998. Government involvement is now mainly limited to the allocation of land by local authorities and the core role of national monetary policy, which impacts heavily on how the market is operating, generating considerable volatility. As a result of liberalisation and transfer policies, China's measured home ownership rate is 90 per cent, although there are large numbers of poorer households who live within other households.

Japan is atypical of this group in that it has a mature private sector and a declining population. Housing policies in Japan after World War II were focused on the quantitative supply of houses, with a wide range of targeted groups and the provision of public rental houses. In these early years, Japan could easily be categorised as an example of the first model, with policy implemented by the Japan Housing Corporation (now the Urban Renaissance Agency) and the Government Housing Loan Corporation (now the Japan Housing Finance Agency).

Once housing shortages had been overcome – and particularly after the collapse of the property bubble in the early 1990s – the direct provision of social rented housing was limited to those on the lowest incomes. Japan's housing policy aims to promote home ownership; therefore, some social rented housing is being privatised. Development is undertaken by the private sector, and commercial banks now play a key role in providing mortgages, even though the Japan Housing Finance Agency also securitises housing loans and provides land to the commercial sector. Issues of affordability and poor quality in the private rented sector remain.

Malaysia implements its housing policy as part of successive national five-year plans. The first, in 1966, emphasised the role of government in providing low-cost housing, and this has been reflected in subsequent plans. Public housing is limited to those in the lowest income group, but as most of the population are on 'low-medium' incomes, low-medium-cost housing has become a major policy since 1996. However, new build targets have not been met, and shortages remain. A housing loan scheme aims to assist lower-income households with no other debt to help them build or buy low-cost homes. This is supported by the Housing Loan Fund, which is a revolving fund that recycles loan repayments to other low-income households. Since the mid-1980s, private housing developers of schemes above a certain threshold must contribute at least 30 per cent low-cost homes as part of their mixed developments. In more pressured areas, the contribution is higher, often with additional incentives such as lower land premiums or subsidised infrastructure and utilities. A major issue however is that these developments are often unaffordable to those on lower incomes, and lately many have remained unsold. Even so, owner-occupation rates are measured at around 80 per cent.

In Thailand, home ownership is the dominant tenure: around 75 per cent of urban households are owner-occupiers. This has been encouraged by government through the provision of low-interest mortgage loans, including a recent zero-interest loan for first-time buyers for the first two years. Thailand also has mortgage interest tax relief for house purchases. Although there is no comprehensive national housing policy, the Government Housing Bank was established in 1953 to provide housing finance at lower rates than commercial banks. A National Housing Authority was set up in 1973 to provide housing for low-income households. Today, these have had to become more self-financing. There are also several affordable housing programmes targeted at low-income households, including slum dwellers and squatters. In the latter case, communities are encouraged to negotiate a long lease or to purchase land. If successful, the National Housing Authority provides a low-interest mortgage and subsidises the infrastructure costs. Loans are also available for building homes.

1.1.3 Informal delivery model – self-help housing

Countries in this group have national housing policies, but these are difficult to implement because of a weak public sector and lack of resources. Housing is mainly provided by the informal sector, and the financial system is underdeveloped. All these countries have informally developed slum areas, so a key feature is the World Bank model of 'site and service' provision.

Five-year plans in India were introduced in 1951 with an emphasis on government subsidies and loans to address affordability issues. However, by 1956 this had shifted, and the government decided to assist state governments to develop low-income housing directly via state housing boards that still exist today. By the end of the 1960s, a rapidly growing population and a slowly increasing housing stock led the government to encourage private and cooperative housing by providing financial assistance. In 1970, the Housing and Urban Development Corporation Limited (HUDCO) was set up to provide low-interest loans to community groups, while in 1977 the Housing Development Finance Corporation (HDFC) was established to provide financial assistance in the form of mortgages to individuals and companies, as well as some development finance to build affordable housing. A radical change in policy in 1985 stated that the major responsibility for building new housing would have to be left to the private sector. The National Housing Bank was founded and, in its ninth five-year plan, India introduced its first national housing policy. Recent evidence suggests that housing amenities are improving, but with wide disparities. A serious housing shortage remains, and housing continues to be mainly supplied by the informal sector.

The dominant tenure in the Philippines, at around 55 per cent, is home ownership. However, at least one-fifth of all households rent land or housing from landowners, with no formal rights over their property. The *Urban Development and Housing Act* 1992 (UDHA) gave housing responsibility to local government units (LGUs), who were expected to identify land while the private sector provided construction and finance. The national government concentrated more on tax incentives and regulatory requirements, by which developers have to provide 20 per cent of cost or land area for affordable housing. Almost 3m households have been supported over the last 30 years. Lack of affordable land, inadequate delivery capacity and a poor and poorly implemented regulatory environment limits what can be done.

The situation is more extreme in Indonesia, where less than 2 per cent of the government's budget is allocated to housing, infrastructure and development, and perhaps 80 per cent of new development is in the informal sector. There have been national affordable housing policies (e.g. 1,000 towers in 2007), and there are a number of agencies involved in providing affordable housing, but their output is extremely limited. Tax relief and regulatory incentives are generally used by developers to build middle-income housing. The major limitations are the lack of land for affordable housing and the government's lack of financial resources.

Pakistan's position is even worse, with a near-feudal land ownership regime and a housing shortage measured at around 10m units. Almost half of those living in urban areas live in squatter or informal settlements. The government has put forward a range of initiatives including a plan to provide 500,000 units within five years. However, there is very little implementation capacity: in particular, land title and registration procedures are inadequate, so the planning regime cannot be effectively implemented.

Before 1986, housing in Vietnam was all state-owned and provided. Thereafter, the approach to housing provision has become almost entirely market-oriented, and state-owned housing has been sold off. There have been large incentives for investors to provide social housing, but with little success. Emphasis has now shifted more towards self-build. Informal provision remains the norm for many low- and even middle-income households.

Overall, most countries following this model have a national approach to addressing the housing shortage – especially among poorer households – but they do not have the financial means or the administrative and regulatory capacities to turn these aspirations into effective policy. Both in terms of development and ownership, financial institutions are severely limited, particularly for low-income households. On the ground, weak regulatory frameworks and the limited availability of urban land have put big constraints on implementation. The informal sector therefore remains a major – and sometimes the majority – provider of shelter.

1.2 An alternative approach to categorisation

Until after World War II, almost all Asian countries depended heavily on self-build. Rapid urbanisation led to overcrowding and poor physical conditions, and a situation where large proportions of households could not afford adequate formal housing. How these issues have been addressed has depended on the varying levels of government intervention, on government control of resources – notably land – and, in particular, on more general economic growth.

An alternative categorisation of the countries, which reflects that growth in terms of income per capita, produces a very similar picture to that set out in section 1.1. Table 3 is based on World Bank economic rankings and shows three groups: high-income, upper-middle-income and lower-middle-income. Only one country, Japan, is in a different category when compared to the housing-based models set out in section 1.1. Moreover, if the analysis had been completed three decades ago, Japan could well have been put in the first category because of its strong government housing policies and intervention.

What Table 3 shows is that the four countries in Asia with high average incomes – while still facing many housing challenges, especially in terms of affordability – have housing conditions similar to those found in advanced countries elsewhere in the world. They have clear titling and registration, well-developed infrastructure networks, highly developed financing schemes and large-scale mainstream developers. Housing remains high on the agenda (except perhaps in Japan) because of consumer aspirations, land availability and affordability. But, to a very considerable degree, basic housing standards are available to all, and physical shortages have been overcome.

For those in the upper-middle-income group, however, there is a long way to go before acceptable housing conditions are available to all. In part because of their stage in development and because of a general shift towards liberalisation, there is much more emphasis on using private sector resources and limiting government intervention to the support of new institutions – particularly in the finance market – both for consumers and developers.

Inherent in these more joint-venture/private sector models is the issue of how to effectively target government assistance. In the main, national governments restrict themselves to improving the framework within which private organisations can work more effectively – such as titling and registration procedures, financing arrangements and tax incentives – while much of the supply-side support, notably with respect to land, comes through local government. Notably, two of these upper-middle-income countries have in place requirements that new developments should include a proportion of affordable housing, although it is notable that in neither case are there institutional structures, such as housing associations, for managing rental housing – and particularly to allocate the lower-cost housing. As a result, there are imbalances, including unsold housing, because what is provided is either unaffordable to the target groups or purchased by those further up the income scale.

Economic ranking	Country	GNI per capita	World Bank ranking
1	Singapore	52,350	High-income
2	Hong Kong	42,970	
3	Japan	38,000	
4	South Korea	27,690	
5	Malaysia	9,860	Upper-middle-income
6	China	8,250	
7	Thailand	5,700	
8	Philippines	3,580	Lower-middle-income
9	Indonesia	3,410	
10	Vietnam	2,060	
11	India	1,680	
12	Pakistan	1,500	

Table 3: Survey of countries categorised by income per head

The third category has what looks like nearly insuperable problems, including housing shortages, difficulties in extending the formal sector further down the income scale and very significant issues around the relative power of landowners and (sometimes) developers. Self-help remains the norm for informal settlements. Housing conditions, while often improving for some groups of households (notably those able to afford formal housing developments) are still generally far below the standards that the World Bank, the United Nations and others have been aiming towards for decades.

2 People's Republic of China

2.1 Summary profile

Economic indicators		Population indicators	
GNI per head	$8,250	Country – population	1.4bn
GNI growth	6.38%	Capital (Beijing) – population	20.1m
Gini coefficient	42.1 (91st)	Urban growth – population	2.6%
Environmental indicators		**Human development indicators**	
Urban pop. water	98%	Corruption Perceptions Index	41 (77th)
Urban pop. sanitation	87%	Human Development Index	0.738 (90th)
CO_2 emissions	7.54	Life expectancy (F/M)	76

Table 4: People's Republic of China – key indicators

Sources: World Bank – World Development Indicators 2016; United Nations Development Programme (Human Development Index); Transparency International (Corruption Perceptions Index)

The People's Republic of China (referred to as China hereafter) has the largest population in the world at 1.4bn, with growth concentrated in its cities – many of which have over 10m people. For decades, China has operated controls on natural population growth and movement of people within its territory, but there has been steady migration from the countryside to the cities. The current urban/rural population split is approximately 57/43 per cent. The country has consistently had one of the highest levels of economic growth over the last decade and is now the second-largest economy in the world. Income distribution is in the medium range of countries, indicated by its Gini coefficient ranking of 91st in the world. China also has some of the highest levels of CO_2 emissions per capita in this paper, with particularly high concentrations in its cities. Its total national CO_2 emissions rank it as having the highest emissions in the world. Both the Corruption Perceptions Index and the Human Development Index place China among the medium-ranking countries in the world. The country has been implementing a large-scale private and public housing programme, which has been putting a strain on China's infrastructure provision. Land in China is publicly owned but occupied privately on long leases. Its land administration systems are highly developed through a cadastre system.

Figure 2: Map of China

2.2 Current housing tenure structure

China has a unique housing system that has evolved from an occupation-based welfare system in which housing is associated with paid employment. The housing system described here is applied to urban housing only, because explicit affordable and public housing programmes are very rare in rural areas (Deng et al, 2011). In less than 20 years, this welfare-based system has been transformed into a market-based system. In 1998, much of the stock of (old) public rental housing owned by state-owned enterprises was sold to workers at low prices. Because of the massive privatisation of the public housing stock, the proportion of home ownership in urban China reached almost 90 per cent in 2011, and nearly half of owner-occupied-homes were previously public housing (Chen et al, 2013). Even though the Chinese government has revived the provision of (new) public rental housing and, since 2009, has started to implement large-scale public housing construction programmes, the very high home ownership rate has remained stable since 2011 (IMF, 2017).

2.3 The delivery of affordable housing

The Chinese central government sets clear policies but commits very limited resources. Local governments are asked to pay for most of the costs of implementing the policies and meet centrally set targets to provide affordable housing. After a series of housing reforms, the current affordable housing regime has evolved into a two-tier public housing system:

1. housing built for sale: economical and comfortable housing (ECH) and capped price housing (CPH) and
2. housing built for renting: public rental housing (PRH) and cheap rental housing (CRH).

Figure 3: Affordable housing in China

2.4 Affordable housing for sale

ECH (introduced in 1994) and CPH (introduced in 2010) are subsidised types of owner-occupied housing. They are intended to incentivise private developers to construct low-cost housing that can be sold to eligible households at government-controlled prices. ECH is designed to promote home ownership among low-income households, while CPH is targeted at middle-income households. Before 2009, ECH was officially assigned as the major source of affordable housing.

Local governments allocate land at no charge to developers for building ECH units, and the sale price is restricted to cover the construction cost at a small profit (normally three per cent). For CPH, land is obtained through competitive bidding, and the sale price is set at around 70–75 per cent of the comparable free market housing level (Chen et al, 2013). The local housing management bureaus retain part ownership of these subsidised units to make it difficult for home owners to sell them on the open market for profit (Zhang et al, 2017).

Even though the sale price of these units is capped at lower than market rates, they remain out of reach for most qualified households (Logan et al, 2009). Also, local governments rely heavily on land leasing revenue, because urban land belongs to the state and taxing property transactions helps to fund the public expense of improving urban infrastructure (Tang et al, 2011). Dependence on land revenues strongly drives the development of ECH and CPH housing estates to the outer boundaries of China's cities, creating new problems for China's public transportation system, road network, municipal infrastructure, social segregation, etc. Since 2007, ECH has been suspended in some parts of China, such as the city of Beijing and the Guangdong, Henan and Shandong provinces. It is anticipated that the ECH programme will be terminated at some point in the future (Zhu, 2014).

2.5 Affordable housing for rent

PRH (introduced in 2009) is a new form of public rental housing that is built or subsidised by the government. It is developed by local governments in partnership with commercial property developers, with a size standard of not more than 60m^2 per unit. It is targeted at lower-middle and low income households with housing difficulties, new employees and qualified migrants with stable jobs who have residence in cities.

Rents are set by local governments and are lower than market rents. Tenants in PRH are allowed to purchase their units after a five-year tenancy (Cao and Keivani, 2014). Since 2009, PRH has gradually replaced ECH and become the major form of affordable housing in urban China (Huang, 2012). However, because local governments have to bear most of the cost, PRH has grown very slowly over the years, and it is primarily located in remote suburbs (Zhang et al, 2017).

CRH (introduced in 1994) is low-rent housing provided mainly for the poorest urban households, with a size standard of not more than 50m^2 per unit. The rent for CRH is lower than the rent for PRH. The major source of funding for CRH is from the investment return of the Housing Provident Fund (HPF) and other local incomes. The HPF is modelled on Singapore's Central Provident Fund (CPF). It is a compulsory housing saving programme whereby employers and employees are obliged to contribute a certain portion of employees' salaries to their HPF accounts. In return, employees get low-interest mortgage loans from the HPF for their home purchase. In 2009, China's central government expanded CRH as part of its efforts to combat the global recession and create employment opportunities. It allocated the equivalent of $1m from its 2009 budget to subsidise CRH projects. In particular, it required that at least ten per cent of the net gain from land conveyance fees, together with all the capital gains in HPF investment, should be used for CRH projects (Deng et al, 2009). However, local governments still have to pay for most of the cost; therefore, the number of CRH units constructed is very limited (Zhang and Rasiah, 2016).

2.6 Qualifying for affordable housing

To obtain affordable housing, residents need to apply to the local housing authority and pass the qualification check, which includes assets, income and living space requirements. Affordable housing was initially for urban residents assessed in accordance with the hukou household registration system. (*Hukou* is the household registration system that was enacted in 1958, which essentially ties people to their family origins. As a basic measure to control China's massive population, hukou became a key dimension of social organisation because many socioeconomic entitlements and benefits, including housing, job opportunities, child education and social welfare, were attached to one's hukou status.) Rural migrants or migrants from other cities who lacked a local urban household status were not eligible for allocations of PRH and could not participate in ECH.

The hukou barrier to housing access was eliminated in the 2009 *Housing Act*. PRH is the only type of housing accessible to migrants, with the rest restricted to local permanent residents in the city (who have a local hukou). However, only a few cities have relaxed the original constraint. In most cases, the municipality has established stringent regulations that only allow the very elite of the migrant population to access PRH, excluding migrants with a low educational or occupational status (Huang, 2012).

2.7 How China's affordable housing policy developed

Housing provision during the Maoist communist period from the mid-1950s to the late 1970s was characterised by the dominance of public rental housing, which was provided for free either as work units for employees or by local housing authorities for urban residents not supported by work units. Home ownership was low. Because the extremely low rent could not cover the costs of basic maintenance, more than half of the housing stock was in poor condition due to overcrowding and underinvestment (Wu, 1996).

From 1978, ten years of pilot tests led to the first national housing reform in 1988, which aimed to change urban housing from a welfare good provided by the state to a market good provided through the property market. To ensure a smooth and gradual transition, 'twin-track' policies were created to allow the co-existence of public housing provision and private housing development (Huang, 2004). During this pilot period, public housing dominated the urban areas of China, reaching 82 per cent of the total in 1982 – almost two-thirds of which was associated with and owned by work units, with one-third owned by municipalities (Stephens, 2010).

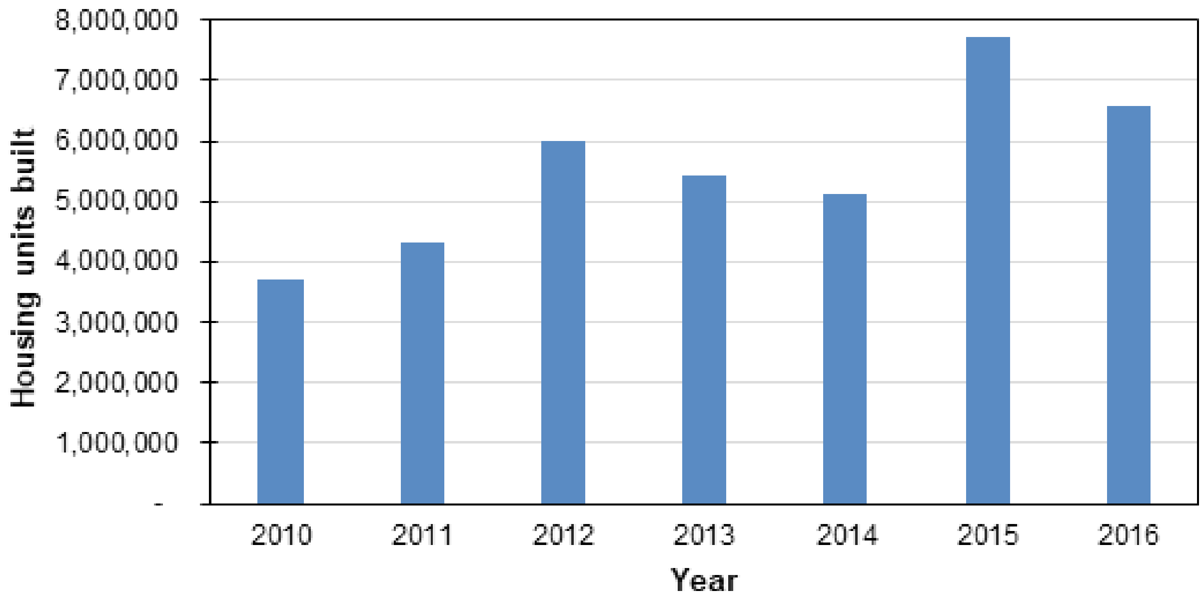
From 1988 to 1998, public housing units started to be sold to their occupying tenants at heavily discounted prices. Rents for the remaining public housing were increased to levels that either covered costs or were equivalent to market rents. In 1994, ECH and the HPF were launched. HPF allowed high-income families to purchase market housing units with full property ownership but without any restrictions for resale (Wu, 1996; 2015). At the same time, CRH was introduced to provide public rental housing for extremely low-income urban households. After the 1997 Asian financial crisis, the Chinese government considered the housing sector a new growth pole for the national economy. In 1998, a full-scale market- and home ownership-oriented housing reform was launched, which announced the end of public housing provision for state employees. Between 1998 and 1999, more than 60 per cent of urban public housing was sold to individuals (Chen et al, 2013). ECH was vigorously promoted as the main form of affordable housing for low- to middle-income households, and CRH was ignored (Huang, 2012). The investment in ECH construction peaked in 2000, accounting for 17 per cent of total housing investment (Zhu, 2014). CRH declined and became residual.

Since the early 2000s, the housing sector has become a key pillar of the Chinese economy. In 2003, to enhance economic development, the Chinese government established market housing as the dominant form of urban housing. ECH has been marginalised (Cao and Keivani, 2014). Since then, investment in ECH has been declining and fell to three per cent of total housing investment in 2010 (Zhu, 2014). The predominance of the market in housing provision triggered a house price boom up to the 2008 global financial crisis. From the second half of 2008 to 2010, in order to promote economic growth, the Chinese government introduced a large fiscal stimulus package that led to a sharp rise in housing prices and sparked significant urban resistance at the grassroots level. These tensions led to the central government adopting various strategies to curb housing speculation and introducing the PRH programme in 2009. The central government mandated local governments to construct large-scale PRH projects and dedicate ten per cent of the annual net income from land lease to providing PRH. The target group for PRH was expanded from the lowest-income households to low-income households with housing difficulties, an adjustment in response to the lack of affordable housing in the market (Huang, 2012). Also, since 2009, the government has allowed individuals to take advantage of the HPF to purchase ECH and PRH (Gu et al, 2016). However, local governments – being the sole supplier of urban land – have been keen to assign land for infrastructure development and local industries rather than for housing development (Zhu, 2014). Also, restricted supplies of housing land push land prices up, which can increase revenue for leasing land to real estate developers for private housing development. The ambitious goal to expand public housing was therefore not accomplished (Huang, 2012).

2.8 Affordable housing policy after 2010

By 2010, ECH and PRH accounted for less than 8 per cent of the total housing stock in 265 cities. In more than 40 per cent of the prefecture-level cities, affordable housing represented less than 5 per cent of the total housing stock, indicating a severe shortage in subsidised housing for low- and middle-income families in urban China (Chen et al, 2013).

In June 2010, to minimise social unrest related to skyrocketing housing prices, the central government made a commitment to increase land supply for affordable rental housing. It stipulated that more than 70 per cent of new housing land should be supplied for affordable housing projects, which aimed to supply an additional 5.84m PRH properties for urban lower-middle income residents across the country (Zhou and Ronald, 2017). Employees of some public organisations (e.g. universities and some state-owned enterprises), high-tech companies and high-earning firms were prioritised for PRH. PRH now effectively acts as a form of state subsidy to institutions and enterprises that contribute to the local economy (Zhang et al, 2017).



Sources: National Bureau of Statistics of China, Statistical Communiqué of the People's Republic of China on National Economic and Social Development (2010–2016) (**http://www.stats.gov.cn/english/statisticalcommuniqu/**)

Figure 3: Development of public housing in urban areas, 2010–16

In March 2011, the Chinese government announced its 12th five-year plan (2011–15), with a target of 36m affordable housing units (including ECH, CPH, CRH and PRH) to be built over the following five years. PRH was officially assigned to be the core of China's new affordable housing system. Through joint venture and subsidised schemes, 19.47m units of affordable housing were built from 2010 to 2013 (Figure 3). Then, in late 2015, China's 13th five-year plan (2016–2020) was announced to encourage shanty town redevelopment schemes aiming to improve housing conditions in shanty towns in state-owned mining and forest areas and state farms, and including PRH, ECH and shanty town resettlement housing (SRH) intended to house relocated urban households at low cost (Huang, 2012). Since 2007, SRH has become a key component of urban redevelopment in China. Local governments simply cannot afford for the compensation to grow at the same rate as the soaring prices of market housing. Thus, the main function of SRH is to house relocated urban households at low cost and, as a result, help to facilitate 'growth-promoting' urban regeneration (Shin, 2009).

SRH will account for more than 40 per cent of the new public housing programme (Chen et al, 2017). The plan also promoted the use of innovative financial vehicles (e.g. public-private partnerships and real estate investment trusts) to fund the provision of affordable housing (Zhang et al, 2017).

By the end of January 2016, the Ministry of Housing and Urban-Rural Development announced that 40.13m units of new PRH had been started between 2011 and 2015 (Chen et al, 2017), and 7.72m units were completed in 2015 alone (Figure 3).

2.9 The future

Since the 1970s, China has moved from conditions where the state played a dominant role in providing housing as a welfare good through the communist system to a regime, where housing is now substantially delivered by the private sector, with support from local government. There is a clear shift in affordable housing policy from pro-home ownership towards a focus on rental housing: PRH now provides an alternative to home ownership, offering housing to a newly emerged middle class rather than low-income families. However, after more than three decades, a market-oriented housing system has become established, with home ownership as the dominant and preferred tenure while PRH is still limited in many Chinese cities. Affordable housing policies by and large heavily rely on the private sector for their provision, and local governments do not make substantial financial contributions. In fact, local governments have generally used the expanded PRH programmes as tools to buttress local economic competitiveness, rather than to provide public housing for the poor.

3 Hong Kong Special Administrative Region (SAR) of the People's Republic of China

3.1 Summary profile

Economic indicators		**Population indicators**	
GNI per head	$42,970	SAR – population	7.34m
GNI growth	4.7%	City of Hong Kong – population	7.34m
Gini coefficient	54 (9th)	Urban growth – population	0.6%
Environmental indicators		**Human development indicators**	
Urban pop. water	100%	Corruption Perceptions Index	77 (13th)
Urban pop. sanitation	100%	Human Development Index	0.917 (12th)
CO_2 emissions	6.39	Life expectancy (F/M)	84

Sources: World Bank – World Development Indicators 2016; United Nations Development Programme (Human Development Index); Transparency International (Corruption Perceptions Index)

Table 5: Hong Kong, Special Administrative Region of the People's Republic of China – key indicators

Hong Kong is a small, densely populated city state. It is a former British colony, and is now a Special Administrative Region (SAR) of the People's Republic of China, located on the southeast coast of mainland China. It is one of the most prosperous cities in the world and ranks high in the measure of even income distribution (Gini). CO_2 emissions per person are around the medium level of global emission rates. With limited space for urban expansion, its population growth is accommodated in high-density, high-rise development. Hong Kong is perceived as one of the least corrupt cities in the world and ranks high on the Human Development Index. The city is serviced by high-quality infrastructure, which is regularly being upgraded. Housing costs in Hong Kong are among the highest in the world, but in the past the city has experienced a number of residential property crashes. Hong Kong's land administration systems are highly developed. All land is in the ownership of the city and occupied on long leases.

Figure 4: Map of Hong Kong

3.2 Current housing tenure structure

Hong Kong is governed by a chief executive and subject to different laws and regulations to mainland China. It has, proportionately, the second-largest public housing system in the world after Singapore. Nearly half the population lives in public housing, which includes both rental and owner-occupied housing. In 2016, there were 2.51m households, with 31 per cent of people living in public rental housing (PRH) and 15 per cent in subsidised owner-occupied housing. The home ownership rate was 50.3 per cent (Census and Statistics Department, 2017).

3.3 The delivery of affordable housing

Hong Kong adopts a supply-side and direct-subsidy approach in its provision of public housing (Chiu, 2010). The Hong Kong Housing Authority (HKHA) is a statutory body that was established in 1973 and is responsible for the provision of public housing, and it is the landlord for all public housing estates in Hong Kong. As at March 2016, the PRH stock was about 789,300 units (Information Services Department, 2016). The initial development of public housing was financed by loans from the British colonial government's Development Loan Fund. However, the benefits of free land from the government and cross-subsidy from the revenues of non-domestic premises (mainly shops and car parks), as well as proceeds from the sales of subsidised flats, removed the need for borrowing, and by April 1993 the HKHA had achieved financial self-sufficiency. It has remained in this position since 1993, and has been able to expand public housing provision without continued government funding (Lau and Murie, 2017).

3.4 Affordable housing for rent

The HKHA sets a target of maintaining the average waiting time at three years. Based on a quota-and-points system for applicants on the waiting list, PRH is assigned to applicants aged

18–57 years. Applicants are allocated points based on their age, with higher point scores having priority (Li, 2016). People who have moved to Hong Kong within the previous seven years are not eligible for public housing. Public housing applicants or their family members must not directly or indirectly own or co-own any domestic property. Moreover, applicants are subject to income and total net asset value limits, as laid down by the HKHA.

The HKHA determines public housing rents according to the incomes of public tenants rather than market rents, thus keeping rents affordable. From 2008 onwards, a new rent adjustment mechanism was introduced. Under the mechanism, public housing rent is reviewed once every two years and adjusted according to any change in the income index of public tenants between the first and second periods covered by the review. However, public housing tenants who have been living in PRH for ten years or more are required to be means-tested. Once a household's income and asset value exceed a certain limit, the household has to pay the market rent and to leave the flat within one year. Also, automatic transfers of PRH tenancies from one generation to the next are barred. Upon the death of the principal tenant of a tenancy, a means-test has to be applied to the surviving family, and the children have no automatic right to 'inherit' the flat.

Figure 5: Affordable housing in Hong Kong

3.5 Affordable ownership

In addition to PRH, the HKHA provided subsidised owner-occupied housing under the Home Ownership Scheme (HOS) and the Private Sector Participation Scheme (PSPS) between 1977 and 2002. Under the HOS, flats were built by the HKHA and sold at prices 30–50 per cent below market levels. For the PSPS, private developers were invited to build HOS flats in which prices for the flats were stipulated by the government and developers tendered for the land reserved for the project. These schemes were suspended between 2003 and 2011, but the HOS restarted after 2012. By March 2016, there were about 398,600 subsidised owner-occupied flats, mainly HOS flats (Information Services Department, 2016).

The Hong Kong Housing Society (HKHS), established in 1948, also plays an essential role in providing rental and subsidised-ownership flats. It is a self-financing and not-for-profit organisation, and it does not receive any direct government subsidy. Since 1953, it has provided rental flats. Currently, it has a total of over 32,000 rental units in 20 estates, housing around 85,000 tenants.

3.6 How Hong Kong's affordable housing policy developed

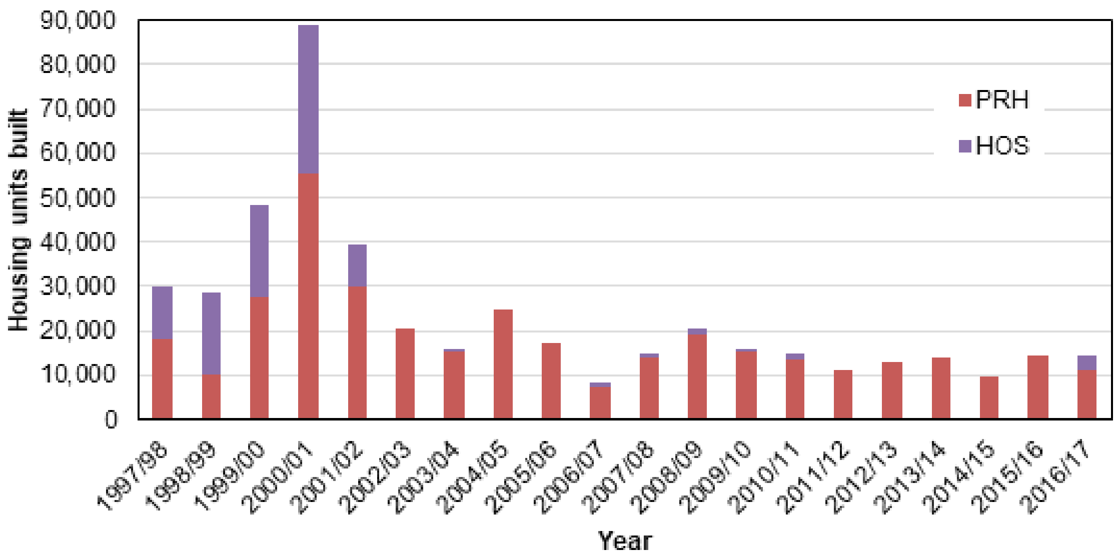
Public housing was introduced in 1953 when a fire in Shek Kip Mei destroyed the shanty town homes of approximately 53,000 people. The Resettlement Department was established in 1954 to provide long-term housing options to other people who needed them, apart from the 1953 fire victims. The first multi-storey resettlement housing (the predecessor of PRH) estate was completed in 1957. Between 1954 and 1973, 234,059 flats were built, accommodating over 1m people – about one-quarter of the population (Choi and Chan, 1979). During this period, public housing was principally for families affected by government squatter clearance projects and public housing redevelopment projects (Drakakis-Smith, 1979; Cuthbert, 1991).

In the 1960s, with the massive inflow of immigrants from mainland China, the number of squatters increased from 250,000 at the end of 1953 to 534,000 in 1963, representing about 20 per cent of the population at that time (Goodstadt, 1969). The inadequacy and scarcity of housing and the over-congestion problem in resettlement estates triggered intermittent riots throughout the late 1960s.

In the 1970s, to restore political legitimacy and minimise the risk of social unrest, a ten-year housing programme (1973–83, later extended to 1987) and the accompanying New Town Development Programme were launched. The target was to provide low-cost public housing for a total of 1.8m people (out of the total population of 4.2m during that time) and to relocate millions to massive public housing estates in Hong Kong's New Territories. The HKHA was established in 1973, and it became the sole body responsible for the execution of the ten-year housing programme. It was later assigned by the British colonial government to launch the HOS (in 1976) and the PSPS (in 1977) to build subsidised owner-occupied flats for lower-middle-income households. By the end of 1983, 202,572 public housing units (57.9 per cent of the target number) were constructed by the HKHA, accommodating an extra 1,007,200 persons (Ho, 1986).

By 1983, nearly half of Hong Kong households were living in PRH, and the HKHA constructed over 35,400 HOS flats. The public home ownership rate was two per cent by March 1983 (Chan, 2000). In 1987, to foster social stability and a sense of belonging during the Sino-British negotiation on the future of Hong Kong, the first Long Term Housing Strategy (LTHS) was announced to further expand the HOS between 1985 and 2001. As a result, more HOS flats were built. HOS flats accounted for about 50 per cent of the total public housing supply between 1985–86 and 1995–96, compared with just 25 per cent before the implementation of the LTHS (Liu et al, 1997). The LTHS also introduced the Home Purchase Loan Scheme, which offered interest-free loans to help sitting PRH tenants purchase their own homes. However, many public tenants found this scheme unattractive. At the end of March 2000, only 4,455 loans were granted, and 3,494 PRH flats were recovered (HPLS). Because of the growing number of public housing residents, it has become a major source of votes at elections, motivating politicians to pursue greater involvement in public housing policies.

In 1990, the LTHS was extended by ten more years into 2011. In 1994, the Sandwich Class Housing Scheme (SCHS) was introduced to enable middle-income families to buy private residential properties. However, house prices reached their peak in 1997, which was 9.5 times the comparable price in 1984 (Li, 2016). In the same year, Hong Kong was returned to China. In the context of widespread doubts about Hong Kong's self-governing capability, Tung Chee-hwa (the first chief executive of the Hong Kong SAR, or HKSAR) embarked on an even more ambitious housing programme than 1973's ten-year housing programme. The aim was to build 85,000 flats a year – 25,000 of which were to be PRH flats – to shorten the waiting time for PRH to three years by 2005, and to reach a home ownership rate of 70 per cent by 2007. Public housing was seen to be a very effective political tool to win back popular support (Cheung, 2000). To boost the home ownership rate, the HOS Secondary Market Scheme was introduced in 1997, which allowed HOS owners to sell their flats to PRH tenants from the third year after the first assignment of their flats without a premium repayment. In addition, the HKHA launched the Tenants Purchase Scheme (TPS) in late 1997 to sell no less than 250,000 PRH flats over a ten-year period. The Home Starter Loan Scheme was also introduced to help first-time home-buyers to purchase flats in the private sector. Owing to the Asian financial crisis that started within months of the inception of the new HKSAR government, these targets were eventually abandoned, except for shortening the waiting time for PRH. Nevertheless, up to March 1999, about 275,000 HOS (including 86,000 PSPS) flats were sold by the HKHA to eligible households. The proportion of HOS flats compared to the total stock of permanent residential flats increased significantly from 6.1 per cent in 1988/89 to 12.4 per cent in 1998–99 (Census and Statistics Department, 2000).



Sources: HKHA (2007; 2017)

Figure 6: Public housing production, 1997/98 to 2016/17

In 2000, the 25,000 PRH target boosted the construction of public flats (Figure 6). In 2000–01, the completion of new public housing (PRH and HOS) units reached 89,002 units. However, in 2003 Hong Kong was hit hard by the outbreak of Severe Acute Respiratory Syndrome (SARS): house prices fell sharply by over 60 per cent between 1997 and 2003 (Li, 2016). To revive the property market, the HKSAR government terminated all subsidised home ownership schemes (the HOS, PSPS, SCHS and the Home Starter Loan Scheme) in 2002 and the TPS in 2005. By 2005, a total of 183,700 PRH flats had been sold under the TPS, representing about 27 per cent of the total PRH stock (Zheng et al, 2017). Nevertheless, because of the transfer of unsold HOS flats to PRH units, the average waiting time for PRH applicants for housing declined from six to three years between 2003–04 and 2006–07 (Li, 2016). Unfortunately, after the launch of the Capital Investment Entrant Scheme in 2004 (which allowed non-local buyers to purchase housing in Hong Kong to qualify for permanent citizenship), house prices began to rise. By January 2006, the escalating public outcry about the worsening affordability problem and the growing demand to restore subsidised home ownership prompted the HKHA to sell the unsold HOS flats (known as surplus HOS flats) from 2006–07 onwards.

3.7 Affordable housing policy after 2010

By 2013, house prices had increased to another record high level. From 2003 to 2013, house prices rose by 320 per cent, driven by the influx of investors from mainland China (Li, 2016). Accordingly, stabilising housing prices has become the major focus for the HKSAR government, which it has approached by tightening mortgage credit availability and imposing additional tax on non-local purchasers, as well as additional tax on short-term speculative gains. The HOS was restarted in 2012, and the first batch of HOS flats was opened to applications in 2016–17 (Figure 6). At the same time, an extension of the HOS Secondary Market Scheme was made available to white-form HOS applicants (defined as those households living in private housing units applying for new HOS units), with a quota of 5,000 allocations (Li, 2016).

In December 2014, a new LTHS was announced with three major directions:

1. to build more PRH units and to ensure the rational use of existing resources
2. to provide more subsidised-sale flats, expand the forms of subsidised home ownership and facilitate the market circulation of existing stock and
3. to stabilise the residential property market through steady land supply and appropriate demand-side management measures, and to promote good sales and tenancy practices for private residential properties.

In the LTHS Annual Progress Report 2016, the HKSAR government updated the total housing supply target to 460,000 units for the period from 2017–18 to 2026–27, with public housing accounting for 60 per cent (Legislative Council, 2017). Delivering on this target will remain a huge challenge for the HKSAR government in view of the continued acute shortage of land supply. Figure 6 shows that the annual supply of PRH flats fell from 19,050 in 2008–09 to 11,276 in 2016–17. As a result, the size of the waiting list for PRH has continued to expand. At the end of June 2017, there were 150,200 names on the general waiting list, including 127,600 on the ‘non-elderly, single person’ list. The average waiting time for general applicants was 4.7 years (HKHA, 2017a; HKHA 2017b).

3.8 The future

In Hong Kong, the massive public housing programme (including the HOS), which accounts for almost half of all housing, has established a tenure-secure, low-rent safety net for many households. Through PRH, the government – first the British colonial government and later the HKSAR government – has been intervening in the housing market to gain political legitimacy. Although successive governments have promoted home ownership and sold some PRH, these policies have had little impact on the size of PRH. In fact, when housing prices are constantly rising, new supply of HOS and PRH homes is often regarded as a policy instrument to help stabilise housing prices, as well as to help the government gain popular support (Forrest and Yip, 2014). Thus, for the foreseeable future (and barring any dramatic political transformations), these distinctive features of Hong Kong's housing market will continue to support the case for significant PRH.

4 India

4.1 Summary profile

Economic indicators		**Population indicators**	
GNI per head	$1,680	Country – population	1.32bn
GNI growth	5.53%	Capital (New Delhi) – population	25m
Gini coefficient	35 (95th)	Urban growth – population	2.3%
Environmental indicators		**Human development indicators**	
Urban pop. water	84%	Corruption Perceptions Index	40 (81st)
Urban pop. sanitation	56%	Human Development Index	0.624 (131st)
CO_2 emissions	1.73	Life expectancy	69

Sources: World Bank – World Development Indicators 2016; United Nations Development Programme (Human Development Index); Transparency International (Corruption Perceptions Index)

Table 6: India – key indicators

India is in South Asia. It is the second most populous country in the world and will shortly exceed China in population size. The country has some of the world's largest cities but also continues to have a large rural population, with an urban/rural split of approximately 34/66 per cent. Although the Indian economy has been growing steadily – leading to greater economic prosperity – the country has a high proportion of poor people. In this paper, only Pakistan has a lower GNI measure per head. The Gini coefficient measures disparities in income and shows India among the medium level of countries in the global index. Although India has one of the lowest CO_2 emissions per person in this paper, at a global level it is ranked third in the world for total CO_2 emissions. The country is middle-ranked in perception of corruption, but it ranks very low in national measures of human development. An inability to afford housing arises from overheated markets at the upper end of the housing market and a lack of affordable supply for people on low or no incomes. Since its independence, India has been undertaking a land reform programme. The majority of land is privately owned. Land administration is conducted by the individual states, and the systems are of a variable standard (but generally weak) throughout the country.

Figure 7: Map of India

4.2 Current housing tenure structure

According to the 2011 census, 54.5m urban area households owned their dwelling. The urban home ownership rate was 69 per cent. The number of households living in rental housing was 21.7m, accounting for 28 per cent of the total housing in urban India (Ministry of Urban Development, 2016). Public rental housing has largely been non-existent in India, except for a small proportion of rental housing provided by government agencies to its employees, such as police, defence services and railway employees (Harish, 2016). Today, the (formal) private rental market is developing but caters mainly to high-income households. Although 'private rental' housing is a dominant tenure among low-income households in urban areas, this is almost entirely provided in slums and informal settlements (Tiwari and Hingorani, 2014). The slum population, reported by the census, was 65.4m, 12m more than in 2001 (Tiwari and Rao, 2016). A 'slum' is defined as a group of households living in a community with inadequate access to quality housing, living space, basic infrastructure, basic services and/or residential status (Shirgaokar and Rumbach, 2018).

4.3 The delivery of affordable housing

For the provision of affordable housing (which in India is a term largely used in the urban context), the central government divides poor households into two categories: the low income groups (LIG) and the economically weaker sections (EWS). EWS, the poorest, are defined as households with annual incomes below 1 lakh (1 lakh = 100,000 rupees or roughly $1,400). LIG include households with an annual income of 1–2 lakhs (Gangwar, 2016). In urban areas, housing is under the jurisdiction of the Ministry of Housing and Urban Affairs.

The policy framework for affordable housing is provided by the National Urban Housing and Habitat Policy 2007 (NUHHP), along with the Jawaharlal Nehru National Urban Renewal Mission (JNNURM, launched in 2005), and the Housing for All (Urban) Mission 2015–22. State governments have the option to align their housing policies with the national framework, in which the provision of affordable housing arises through greater involvement from the private sector and public-private partnerships. The goal of the policy is to increase home ownership rates, including those of LIG households (Sengupta, 2013). Today, both the central and state governments have played a very limited role in housing provision in India (Tiwari and Hingorani, 2014).

Figure 8: Affordable housing in India

4.4 Affordable housing for sale

Private developers in India are the primary suppliers of affordable housing. The role of the private sector has increased especially during the Global Financial Crisis when the housing demand from the upper income segment dropped. Given the huge demand and the guarantee of high sale rates and minimum risk, the affordable housing segment is seen as an alternative to the provision of upper-income housing (Sengupta, 2013). Affordable housing for EWS households is provided under the Affordable Housing in Partnership (AHP) scheme (launched in 2013). The central government provides a subsidy of 75,000 rupees (approximately $1,000) per unit for state governments and partners to build large affordable housing projects (Barnhardt et al, 2016). For LIG households, typical projects are located 25–30km from the city centre, cover 15–35 acres and have 1,500–3,000 units. The projects are characterised by their closeness to industrial or commercial hubs, their low construction cost, a shorter period of construction and the provision of basic social amenities (JLL, 2012). However, public-private partnerships are often unable to undertake large-scale and complex development projects that involve multiple stakeholders.

For example, the two largest slum redevelopment projects in Mumbai have been stalled due to a lack of coordination between government bureaucracies, conflicts within public-private coalitions and challenges from residents and housing rights non-governmental organisations (Ren, 2018). Also, because of the scarcity of suitable land – which is largely privately owned – developing affordable housing on a large scale has always been a challenge in urban India. Until 2013, the use of powers of compulsory purchase to acquire private land for housing projects was not possible, because housing was not considered as a public good. However, with the introduction of the *Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act* 2013, the opportunity for compulsory acquisition of private land for private development is available – although at a very high cost (Tiwari and Rao, 2016). This has been exacerbated by the weak land titling system, which allows for illegal land ownership by the Indian mafia, as well as illegal encroachment (Gopalan and Venkataraman, 2015).

To ensure houses are affordable, the Ministry of Housing and Urban Affairs provides guidelines on the affordability and construction of such housing according to income groups. For EWS households, an affordable housing unit should be financeable by home loans, with monthly instalments not exceeding 20 per cent of the gross monthly household income. For LIG households, the percentage is increased to 30 per cent. In addition, affordable houses are defined as 'dwelling units with carpet area between 21m^2 and 27m^2 for the EWS category and 28–60m^2 for the LIG category', and the sale prices for these houses are left to the discretion of state governments (Tiwari and Rao, 2016).

Even with government subsidy to provide home ownership to EWS and LIG households, the huge gap between the affordability and price of a house is further widened by the absence of formal financial instruments for lower-income households. Thus, it is not surprising to find that most of the affordable housing policies have failed to provide home ownership to low-income households, and the vast majority of new units produced by the private sector are only affordable for middle- and high-income households (Shirgaokar and Rumbach, 2018).

4.5 How India's affordable housing policy developed

Immediately after independence in 1947, the central government regarded housing as a capital-consuming activity that could not produce economic return. Consequently, housing was neither accorded priority status for policies and programmes nor did it become a constitutional obligation for the government. To cater for the influx of migrants from rural areas to big cities looking for employment, workers' units were provided, either by the industrial estate owners themselves or by other landowners in the form of rental units. Lower-income government servants were provided with public housing. Alongside this formal arrangement for housing, there was the development of unauthorised squatter settlements and shanties on private and public land, which became the first homes for migrants. As an immediate relief measure, the government expanded the pre-World War II measure of the *Bombay Rents, Hotel and Lodging Rates Control Act* 1947 in all major cities of the country, which further constrained the supply of rental houses in urban India (Tiwari and Rao, 2016).

In the 1950s, under India's first five-year plan (1951–55), the central government introduced the Subsidised Housing Scheme for Industrial Workers, in which subsidies were provided to private employers for the construction of workers' units under the condition that the rental charged to workers will not exceed ten per cent of their income. For lower- and middle-income households, indirect measures (such as government-guaranteed loans and the relaxation of rent control for new units) were used to encourage private developers and housing cooperatives to meet the housing shortage (Tiwari and Rao, 2016). However, there was a policy shift in the second five-year plan (1956–61) as the responsibility to provide housing to EWS and LIG households was devolved from the central government to state governments. The central government provided financial assistance to state governments to support them with developing low-income housing. It introduced state housing boards that were responsible for allocating serviced land and constructing houses for allocation to the public (Shirgaokar and Rumbach, 2018).

In the mid-1960s, India experienced slow economic growth and extreme volatility. The central government strongly intervened in market operations, and the economic environment was highly regulated by policy and legislature (Tiwari and Rao, 2016). By the fourth five-year plan (1969–74), the central government was faced with the dual problem of a rapidly growing population and a slow-growing housing stock. For the first time, the central government decided to use the private sector and housing cooperatives to provide financial assistance. Housing cooperatives in India are regarded as part of the public sector as their activities depend heavily on public sector funds. They have grown to 92,000 organisations from 5,564 in 1960 and have an estimated housing output of 2.5m homes (Sengupta, 2014).

In the 1970s, the central government laid the foundations for growth in the housing finance sector. It set up the Housing and Urban Development Corporation Limited (HUDCO) in 1970. HUDCO, a public-sector company fully owned by the central government, provides loans with interest rates lower than prevailing market rates and longer repayment schedules (up to 15 years). However, HUDCO's operations for mass housing programmes are constrained by its dependence on state government guarantees. Generally, all loans to state government bodies and public-sector borrowers functioning under the states are required to carry a state government guarantee. HUDCO also provides housing finance assistance for house construction or for upgrading the conditions of EWS and LIG households through non-government organisations (United Nations Human Settlement Programme, 2008). As part of the fifth five-year plan (1974–79), India's first housing finance company, known as the Housing Development Finance Corporation (HDFC) was set up in 1977. The HDFC is the largest housing finance provider in India. Its maximum loan-to-value ratio is 85 per cent, and its income-to-instalment ratio is between 35 and 40 per cent (United Nations Human Settlement Programme, 2008). As a private sector entity, the HDFC focuses on retail lending based on market principles and targets mainly middle- and high-income households, housing cooperatives and companies providing staff housing. Between 1970 and 1980, 280,000 housing units were added in urban areas: the majority of these units were developed by the public sector for its employees, but some units were allocated to EWS and LIG households (Tiwari and Rao, 2016).

In the 1980s, the share of public sector involvement in housing decreased further. The total number of houses added to the stock through public schemes was about 170,000 in urban areas during the sixth five-year plan (1980–85). The role of the central government was to facilitate private activities in housing via institutional development. The role of financial institutions such as HUDCO and the HDFC, as well as housing cooperatives, was enhanced to provide finance for all income households (Tiwari and Rao, 2016). The shift towards the private sector was further emphasised in the seventh five-year plan (1985–90; United Nations Human Settlement Programme, 2008). To establish the market as the dominant mode of housing provision, the National Housing Policy was enacted in 1988 to encourage private developers to provide affordable housing in urban areas (Ram and Needham, 2016). As a follow-up to the National Housing Policy, the government set up the National Housing Bank as a subsidiary of the Reserve Bank of India (the central bank of the country). The National Housing Bank was established to promote and regulate housing finance institutions and to mobilise larger resources for housing, particularly to help low-income households. Consequently, the central and state governments' total investments in housing between 1985 and 1992 were merely 1.3 per cent of the total public outlay (Tiwari and Rao, 2016).

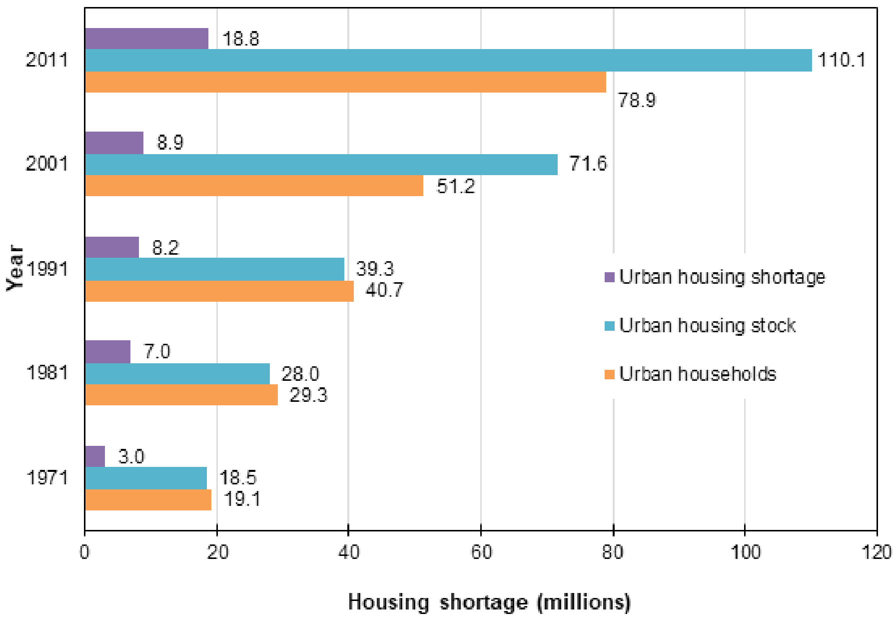
In the 1990s, the role of the government in the housing sector as an enabler rather than a direct provider of housing was reinforced in the eighth five-year plan (1992–97). India's first official housing policy was the *National Housing Policy* 1994, and the national agenda of 'shelter for all' and the *Housing and Habitat Policy* 1998 focused on the increased role of the private sector, decentralisation and the development of fiscal incentives and concessions. The *Housing and Habitat Policy* 1998 also introduced initiatives to promote the involvement of multiple stakeholders and allow foreign direct investment in housing and the real estate sector (JLL, 2012). In 2002, the central government permitted 100 per cent foreign direct investment for the development of integrated townships, which included housing, commercial premises and urban infrastructure (Sengupta and Tipple, 2007).

Overall, between 1991 and 2001 the number of housing units grew by about 54m, housing quality improved, and the number of households living in cramped conditions dropped. In cities, home ownership rates rose from 63 to 67 per cent, while in rural areas they rose by one percentage point to 95 per cent (Sengupta, 2014).

In 2005, the central government launched the first large-scale housing mission — the JNNURM (2005–12) — to provide 1.5m dwellings for the urban poor in 65 mission cities (Gopalan and Venkataraman, 2015). Because the central government's budgetary expenditure on housing programmes as a percentage of gross domestic product was less than 0.1, by March 2013 only 0.68m houses were completed for EWS households (Tiwari and Hingorani, 2014). Then, in 2007, the central government enacted the NUHHP, which stipulated that up to 10–15 per cent of land in every public/private housing project – or 20–25 per cent of the floor area – was to be set aside for EWS/LIG housing (Sengupta, 2014). However, progress has been slow and limited to development projects on the periphery of large cities (Tiwari and Hingorani, 2014).

4.6 Affordable housing policy after 2010

In 2013, two outcomes of the NUHHP were implemented at the national level: the AHP and the Rajiv Awas Yojana (RAY) schemes. These schemes were intended to provide 140,000 new dwellings (Mahadevia, 2011). The RAY scheme aimed to support state governments to redevelop all existing slums in a holistic and integrated way and create new affordable housing stock (JLL, 2012). However, only 3,378 houses were completed between 2013 and 2015, and, in June 2015, RAY was replaced by a new programme called the Housing for All (Urban) Mission 2015–22. Housing for All aims to build on RAY and fully address the housing shortage by 2022. The focus of affordable housing has now shifted from low-income housing to low- to middle-income housing (Sengupta, 2013). The mission seeks to provide 20m housing units in urban areas and to take up slum rehabilitation projects. According to the mission's guidelines, an 'affordable housing project' shall provide a minimum of 35 per cent of its houses for EWS households (Jain, 2016).



Source: Tiwari and Rao (2016)

Figure 9: Urban households, urban housing stock and urban housing shortages in India (in millions), 1971–2011

Note: housing shortage = households living in nondurable houses + households living in obsolescent houses + households living in congested houses + households that are homeless.

Despite numerous housing programs being implemented every 5–10 years, housing shortages (in absolute terms) have been consistently increasing. Tiwari and Rao (2016) estimate that the total housing shortage in urban India was approximately 18.8m in 2011 (Figure 9), and 27 per cent of this shortage was due to the existence of physically unfit structures (nondurable and obsolete). In fact, it has been found that the addition of new housing stock in the market from the private sector has not reduced shortages, implying that the target consumers of the new stock are different from those households who are living in nondurable houses.

4.7 The future

Providing housing for the urban poor has been a policy concern for the central and state governments for more than 50 years. A wide variety of housing programmes have been introduced by the central government; however, the devolution of housing responsibility for EWS and LIG households to state governments without also devolving financial resources has further weakened the deliverability of these programmes. Attempts to stimulate a formal market for affordable housing by promoting private-sector funding for housing and infrastructure (as an alternative to the provision by governments) have not been very successful. In fact, private sector housing development rarely caters to low-income groups. Thus, there has always an inadequate supply of affordable housing in many cities.

5 Japan

5.1 Summary profile

Economic indicators		**Population indicators**	
GNI per head	$38,000	Country – population	127m
GNI growth	-2.8%	Capital (Tokyo) – population	13m
Gini coefficient	38 (78th)	Urban growth – population	0.3%
Environmental indicators		**Human development indicators**	
Urban pop. water	100%	Corruption Perceptions Index	73 (20th)
Urban pop. sanitation	100%	Human Development Index	0.903 (17th)
CO_2 emissions	9.54	Life expectancy (F/M)	84

Sources: World Bank – World Development Indicators 2016; United Nations Development Programme (Human Development Index); Transparency International (Corruption Perceptions Index)

Table 7: Japan – key indicators

Japan comprises four main islands and a great number of smaller ones in the Western Pacific Ocean off the coasts of the Korean peninsula and Russia. It has a large population concentrated in highly developed cities, hence its urban/rural population split of 92/8 per cent. Tokyo–Yokohama is one of the largest conurbations in the world. The country has a high risk of earthquakes and tsunamis. Japan is a mature, developed economy and ranks third in this paper in terms of GNI per head. Its economy has been slowing recently, and it is the only country with a declining population. As a fully developed country, CO_2 emissions per head of population are among the highest in the world; the country is also ranked fifth in the world for total CO_2 emissions. Its main cities have some of the highest property values in the world, and a lack of affordability tends to arise from the shortage of accommodation in urban areas with strong demand. Land is mainly held in private ownership. Although Japan operates a highly developed land administration system, there is still a proportion of land that is not registered.

Figure 10: Map of Japan

5.2 Current housing tenure structure

Japan's housing policy is focused on the promotion of home ownership, resulting in a small supply of public housing for low-income households (Hayakawa, 2002; Hirayama and Ronald, 2007). According to the Housing and Land Survey 2013 (Statistics Japan, 2013), the proportion of owner-occupied dwellings of the total dwellings in Japan was 61.7 per cent, but, in Tokyo, the proportion was 45.8 per cent. In Japan, the proportions of public rental dwellings owned by local governments and the Urban Renaissance Agency were 3.8 per cent and 1.6 per cent, respectively. In Tokyo, the proportion of public rental dwellings owned by the Urban Renaissance Agency was higher than the national figure, at 3.6 per cent, while the proportion of public rental dwellings owned by local governments was a little higher in comparison, at 4.1 per cent. Across Japan, the proportion of private rental dwellings was 28 per cent, but in Tokyo it was 37.6 per cent.

5.3 The delivery of affordable housing

Since 2004, the Japanese government has withdrawn from its role in the provision of affordable housing. There is now little state support for individuals and families seeking affordable homes. Also, there has been no state support for the supply of private rental housing, nor a comprehensive housing allowance programme for individual low-income renters.

5.4 Affordable housing for sale

After World War II, Japanese housing policy focused on owner-occupation assistance for middle-income households and public rental housing for people on the lowest income. The aim of the housing policy was to help middle-income households become home owners. Home ownership was driven by the Government Housing Loan Corporation (GHLC), which was established in 1950 and reorganised as the Japan Housing Finance Agency in 2007.

The GHLC – the state's monopoly on housing finance – provided subsidised (long-term fixed-interest) housing loans between 1951 and 2007. There was a ceiling for the price of the houses, and luxurious houses were not eligible for GHLC loans. The GHLC established a proprietary structural standard for the houses it financed, and – because of its monopolisation of the mortgage market – this helped to improve the quality of housing in Japan (Kobayashi, 2016).

Figure 11: Affordable housing in Japan

5.5 Affordable housing for rent

Public rental housing in Japan is provided at below market rents for low-income families by local governments. Between 1945 and 1986, around 2.6m public housing units were supplied, with construction peaking at 7.2 per cent of total new construction in 1970 (Ronald and Drutã, 2016). Public housing was initially opened to the majority of households, or the lowest 80 per cent of all income groups. At that time, public housing was seen by the government as temporary housing for young households with lower incomes, and they were expected to move out of public housing after a short period and acquire their own housing as their incomes increased. However, the eligibility criteria for public housing was narrowed over time. First, the 1959 amendment established a system in which a household with an income that exceeded a certain amount was required to make an effort to leave. Then, the 1969 amendment made it possible for local governments to formally request those with higher incomes to vacate public housing. By the 1970s, only the lowest 33 per cent of all income groups were eligible for public housing. Finally, another amendment was made in 1996 that reduced this figure to 25 per cent. The 1996 amendment also introduced a new rent calculation system to replace the old system, which was based on the cost of building construction and site acquisition. Instead, the new system was based on a set of factors that included tenants' incomes. As a result, many residents with improved incomes have increasingly been pressured to vacate public housing since they have been required to pay market-level rents.

Increasingly, public housing has become 'welfare housing' for socially marginal households, including elderly people, single parents and those with disabilities. Meanwhile, the government has strengthened restrictions pertaining to the transference of public housing eligibility in cases where the head of the household passes away. Guidelines issued in 2005 indicated that, in principle, the right could only be transferred from the head of the household to the spouse (Hirayama, 2010a).

Unique to Japan, another form of affordable housing, employee housing, is provided by the corporate sector. Major corporations have implemented in-house systems to support their young employees by securing housing for them, including low-rent dormitories for single employees and low-rent employee housing for married employees and their household members, until they enter the home ownership sector as their incomes increase with age (Sato, 2007). Nevertheless, the post-bubble recession eroded the economic foundations of corporate-based welfare, resulting in a decreased supply of employee housing. The amount of employee housing, which was 2.05m units in 1993, decreased to 1.4m units in 2008 (Hirayama, 2013).

5.6 How Japan's affordable housing policy developed

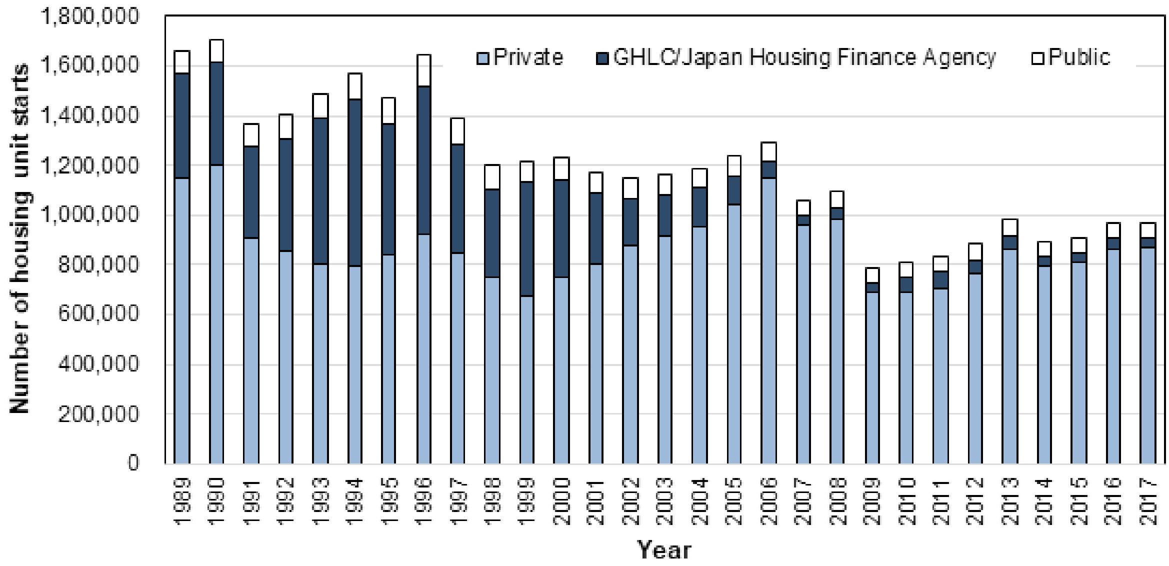
When World War II ended in 1945, 2.6m homes were lost due to bombings and fires. Also, because of Japan's baby boom between 1945 and 1949, there was a total shortfall of around 4.2m homes (Hayakawa, 1990). To address this shortfall, the priority of the government was to increase the quantitative supply of housing; therefore, the so-called 'three pillars for housing policy' were introduced in the 1950s. The first pillar was the GHLC, established to provide middle-income households with long-term, low-interest mortgages. This shaped the emerging housing system around the private production and consumption of owner-occupied family homes. The second pillar was the *Public Housing Act* 1951, which authorised local governments to construct and manage public housing for low-income households. Local governments received fiscal assistance from the national government, which included a subsidy for the construction of public rental houses and a subsidy to compensate for the operational margins, including rent assistance for very low-income renters. The third pillar was the Japan Housing Corporation (JHC), established in 1955 to promote construction of modern housing for working households, mainly in industrial growth areas around cities. It also pioneered large-scale new town development in Japan (Kobayashi, 2016).

In the 1960s, the migration from rural agricultural regions to urban commercial and industrial regions caused severe housing problems in metropolitan areas, such as Tokyo and Osaka. As a strategy to stimulate the economy of Japan, the government enacted the *Housing Construction Plan Act* of 1966 and stipulated the target of housing supply under each housing construction five-year programme. Under these plans, the majority of subsidy for housing construction was GHLC loans for building owner-occupied housing. Government investment in the JHC and GHLC drove a rapid expansion of the construction sector, which became the leading industry by the 1960s (Ronald and Kyung, 2013). The Act also comprised allocating quotas to local governments relating to the construction of public housing. By 1968, the amount of housing stock exceeded the number of households. Among the three pillars of housing policy, the GHLC made the largest contribution to the supply of houses in terms of quantity and helped facilitate a rapid increase in home ownership rates (Kobayashi, 2016).

Throughout the 1970s, the focus of the housing policy was towards mass construction of owner-occupied housing to stimulate the economy, putting more stress on encouraging people to acquire their own houses with a loan provided by the GHLC. In fact, greater numbers of GHLC mortgages were granted when the economy became stagnant – that is, after the first oil crisis in the early 1970s and after the second oil crisis in the late 1970s. In contrast, the construction of public housing, which increased until the end of the 1960s, had been falling continuously since the beginning of the 1970s (Hirayama, 2013). Because public housing was aggressively built in the 1950s and 1960s (Ito, 1994), the number of public rental houses reached close to 2m units in 1973 (Kobayashi, 2016).

The 1980s marked a notable shift in Japanese policy towards privatisation and marketisation that was initiated by the Nakasone government. The JHC was reorganised into the Japan Housing and Urban Development Corporation in 1981. The Japanese economy entered a boom period, driven in part by lending for, and speculation in, housing and real estate. Annual housing output peaked in 1987 at 1.7m units, providing more homes than required for the number of households (Barlow and Ozaki, 2005) and eventually leading to an asset bubble (Douglass, 1993). The average cost of a home more than doubled between 1980 and 1990 (Ronald and Drutã, 2016). As house price inflation became problematic, GHLC lending conditions were extended and new schemes were introduced to make home ownership more affordable (e.g. two-generation mortgages, where parents and their adult children shared a housing property debt together).

At the beginning of the 1990s, the asset bubble burst. Japan then entered a prolonged period of enduring recession, characterised by minimal or negative real economic growth, rising unemployment rates and reduced real incomes. Property prices dropped more than a third in value between 1992 and 2002, and interest rates fell to historic lows, even reaching zero (Fujita, 2011). The downturn in the owner-occupied housing market in the early 1990s led to an increase in public money being injected into GHLC loans in a bid to pump-prime the market. The GHLC set interest rates on its loans at 2 per cent for 10 years and reduced the customary 20 per cent down-payment requirement to 10 per cent (see Oizumi, 2007). This triggered a growth in housing loans, and, by 1994, the provision of GHLC mortgages reached a record high level (Figure 12). Of the new owner-occupied housing units, the average percentage of GHLC-financed housing rose from 18.8 per cent in the 1960s to 49.3 per cent (Hirayama, 2010b). However, from the mid-1990s onward, the government began to retreat from its market-regulating role. First, there was a decline in the allocation of national subsidies to local governments, which has increasingly forced local governments to become economically independent and to participate in inter-regional economic competition. Without the instruction and financial assistance from the national government, local governments were reluctant to provide public housing, which led to further declines in construction activity. Then, in 1999, the Japan Housing and Urban Development Corporation was reorganised into the Urban Development Corporation.



Source: **http://www.mlit.go.jp/toukeijouhou/chojou/stat-e.htm**

Figure 12: Number of housing unit construction starts by source of finance, 1989–2017

Note: the GHLC was replaced by the Japan Housing Finance Agency in 2007. Public sources of finance include local governments and the Urban Renaissance Agency and its predecessors – the Japan Housing and Urban Development Corporation (1981–98) and the Urban Development Corporation (1999–2003).

In 2002, the Japanese economy began to recover, but the economic upturn was not particularly strong. Nevertheless, the government set about dismantling the market of GHLC loans. In 2004, the Urban Development Corporation was reorganised again into the Urban Renaissance Agency. Focused on public-private partnerships, the new agency substantially reduced its housing programmes and turned its attention to managing the housing stock. The construction of public rental housing for low-income households was halted. The *Housing Construction Plan Act* 1966, which had provided a foundation for housing policy, was discontinued in 2005. This was followed by the 2006 enactment of the *Basic Act for Housing*, which reoriented the roles played by the government and private sector in operating a new housing system towards a more liberalised market economy, expanding the role of the free market in providing housing and mortgages. The housing construction five-year programme was abolished. Finally, in 2007, the GHLC – which was the major pillar in Japan's housing policy – was abolished too. It was replaced by the Japan Housing Finance Agency, which only provided mortgages for the construction of houses for disaster mitigation or urban rehabilitation. The main focus of the new agency was to establish a secondary mortgage finance sector that could support, through securitisation, the role of private lenders (banks) in providing loans for housing (Hirayama, 2010a). From 1950 to 2007, the GHLC financed a total of 19.41m housing units, accounting for nearly 30 per cent of post-war housing construction (Kobayashi, 2016). After a short recovery, Japan re-entered a severe recession in 2008, which was triggered by the global financial crisis. The number of housing units entering construction declined to 0.79m units in 2009 and, since then, it has not exceeded 1m units (Figure 12).

5.7 Affordable housing policy after 2010

By 2013, the Urban Renaissance Agency managed a total of 855,500 public rental housing units, with 478,800 located in the Tokyo metropolitan area (Kobayashi, 2016). The majority of the agency's work has been on rebuilding old public housing estates (around 80 per cent, mostly built in the 1960s and the 1970s), with new development focused on family households in urban redevelopment projects rather than the needs of poorer households (Ronald and Drutã, 2016). With the withdrawal of GHLC loans, the waning of the corporate sector and the falling of real incomes, access to home ownership has been limited – even though property prices have stagnated.

At the same time, Japan has been experiencing population ageing and decline. The degree of population decline has differed between regions. From the 2008 census to the 2013 census, the national population decreased by 394,000; however, in Tokyo, the population increased by 462,000 due to migration. The 2018 Housing and Land Survey of Japan revealed that there were 62.42m housing units in Japan, of which 8.46m were vacant, accounting for 13.5 per cent of the total housing stock. Because of such a high vacancy rate, home ownership has not been a major policy priority (Kobayashi, 2015). In an attempt to address the problem, the *Vacant Housing Law* 2015 provided local governments and municipalities with expansive powers to track vacant and abandoned housing to compel home owners to remediate and repair, or tear down and develop, these properties (Manda, 2015).

5.8 The future

The initial housing policy after World War II to supply a large quantity of houses was achieved within the 20th century. However, after the crash of the asset price bubble since 1990, housing policy has been undergoing drastic changes. The most notable was to abolish the three pillars of the housing policy.

With a declining population, the Japanese housing market is currently witnessing an overall supply surplus. After two decades of post-bubble recession, it is expected that the housing market will remain gloomy for decades to come. As the government has withdrawn from supporting affordable home ownership and providing public rental housing, there will be limited provision of affordable housing for low-income households in both the owner-occupied and the public housing sectors.

6 Malaysia

6.1 Summary profile

Economic indicators		**Population indicators**	
GNI per head	$9,860	Country – population	31m
GNI growth	4.54%	Capital (Kuala Lumpur) – population	1.76m
Gini coefficient	46 (30th)	Urban growth – population	2.4%
Environmental indicators		**Human development indicators**	
Urban pop. water	100%	Corruption Perceptions Index	47 (62nd)
Urban pop. sanitation	96%	Human Development Index	0.789 (59th)
CO_2 emissions	8.3	Life expectancy (F/M)	75

Sources: World Bank – World Development Indicators 2016; United Nations Development Programme (Human Development Index); Transparency International (Corruption Perceptions Index)

Table 8: Malaysia – key indicators

Malaysia is in Southeast Asia and has two main territories: a peninsular area extending south from Thailand to Singapore, and territory that is part of the island of Borneo. With a population of just over 30m, it has one of the smallest populations among the countries in this paper, with an urban/rural split of 75/25 per cent. In World Bank terms, it is defined as a developing country, with an upper-middle income level and steady economic growth. According to its Gini coefficient, income is reasonably well-distributed among the population. CO_2 emissions per head are at the upper end of developed economy levels, and it is ranked 25th in the world for total CO_2 emissions. Perception of corruption measures place the country among middle-ranking countries, and it scores reasonably well on the Human Development Index. Land is primarily in private ownership, and Malaysia operates a cadastre-based land administration system.

Figure 13: Map of Malaysia

6.2 Current housing tenure structure

In 2010 (the year of the latest Population and Housing Census; KH Institute, 2015), there were about 4.4m houses in the formal sector in Malaysia. The home ownership rate was 72.5 per cent (to include ownership of informal houses), and the urban home ownership rate was 69.1 per cent; however, in Kuala Lumpur it was 53.5 per cent (Samad et al, 2016). The percentage of households living in the rental sector was 24 per cent (included households living in quarters; REHDA Institute, 2016).

6.3 The delivery of affordable housing

In Malaysia, the federal government has formulated and published five-year plans and set housing targets for various price categories (covering low-, low-medium-, medium- and high-cost housing), with the objective of promoting a home-owning democracy (Mohd and Alias, 2008). To achieve this, there are several affordable housing schemes for different income groups. For the poor, it is the Hardcore Poor Housing Programme. For low-income households, it's the Low-cost Housing Programme, while the Low-medium-cost Housing Programme is for low-medium income households. For middle-income households, home ownership schemes include the My First Home Scheme (MFH), the 1Malaysia People's Housing Scheme (PR1MA) and the 1Malaysia Civil Servants Housing Scheme (PPA1M).

6.4 Affordable housing for sale/rent

The Hardcore Poor Housing Programme is provided by the public sector to repair dilapidated houses of the hardcore poor – households with a monthly income of less than RM500 (around $125; Mahamud and Hasbullah, 2011). It includes two types of houses: those for rent and those for sale. The rent for these houses is RM124 per month, while sale prices range from RM35,000 to RM42,000. Housing is also built to resettle squatters affected by government development in projects in cities and larger towns. By the end of 2012, a total of 90 projects consisting of 67,886 units (for rent and sale) had been built, and the federal government resettled 35,566 squatters (MUWHLG, 2013).

Low-cost housing is provided by both private (through private developers) and public sectors (through state governments and other government agencies). Starting from 1981, private housing developers are obliged to provide at least 30 per cent of new residential development for low-cost units, unless expressly permitted. Additional incentives are extended for developers who wish to exceed the 30 per cent quota, such as access to fast-tracking windows, lower land premiums, subsidised infrastructure and utilities, etc. (ADB, 2009). Low-cost houses in urban areas are multi-level flats, and in suburban areas they are single- and double-storey terrace houses (Abd. Shatar et al, 2017). The minimum design of low-cost housing is 550–600 square feet (around 45–55 square metres), with two bedrooms. Since 1982, the government has set a ceiling price for low-cost housing and a maximum household income to be eligible to buy these houses. Eligible buyers are registered under the computerised open registration system administered by the respective state governments. The application criteria for low-cost housing includes the applicant's income, age and their housing needs. Priority is given to police and army personnel and to those who have received a relocation order in squatter settlements (Shuid, 2016). Bajunid and Ghazali (2012) found that private developers face difficulty in delivering low-cost housing projects where the construction costs are much higher than the ceiling prices of the low-cost housing. Because of its low profitability, low-cost housing developments tend to be in remote locations, with poor-quality materials and workmanship (Sufian and Rahman, 2008). This has led to sluggish sales and an overhang of housing units (unsold for more than nine months after completion; Foo and Wong, 2014).

Figure 14: Affordable housing in Malaysia

Low-medium-cost housing has replaced low-cost housing as a major form of affordable housing since the seventh Malaysian five-year plan (1996–2000). It is aimed at low-medium income households with a salary ranging between RM1,501 to RM2,500 (just over $600) per month. The ceiling price is set at RM42,000 per unit. Due to the higher cost of development in Kuala Lumpur, the prices range between RM42,001 to RM85,000 per unit and targeted at households with income between RM2,001 to RM2,999 per month (Shuid, 2004). However, because of the capped prices, private developers have not been keen to develop low-medium-cost housing. Furthermore, the government has not provided any incentive to encourage developers to build low-medium-cost housing units (Abd. Shatar et al, 2017).

Three affordable housing programmes for middle-income households to purchase their first homes were introduced in the early 2010s. The MFH scheme, introduced in 2011, provides 100 per cent financing from banks for young working Malaysians earning RM3,000 per month or less to acquire their first homes, priced between RM100,000 and RM220,000 (Tan, 2012). The PR1MA, introduced in 2012, constructs affordable housing exclusively for first-time buyers living in key urban centres. This is for households with incomes of less than RM6,000 per month to buy a three-bedroom apartment between 800 and 1,400 square feet (74 and 130m^2, respectively, priced between RM220,000 and RM300,000. Eligible buyers can obtain loans of up to 105 per cent of the purchase price from banks, with a 30-year payment scheme. The PPA1M, introduced in 2013, is a special affordable housing programme to help low- and middle-income civil servants to own a house. For these three programmes, the government has not imposed any control on the selling price (Shuid, 2016).

In general, funding for affordable housing programmes comes from the federal government. State governments are only responsible for identifying the state's available land for housing construction and selecting eligible house buyers. Local governments generally do not get involved in housing production, except when approving planning permission and building plans for housing construction by public and private developers. However, in major cities such as Kuala Lumpur and Petaling Jaya, local governments are involved in the administration and maintenance of low-cost housing, with federal and state funding (Shuid, 2016).

6.5 How Malaysia's affordable housing policy developed

Prior to its independence in 1957, housing problems in Malaya were associated with squatter dwellings and overcrowded accommodations. The British administration provided public housing, known as 'institutional quarters', only for the upper-class British employees who worked in public institutions such as hospitals, schools and district offices. The British administration also provided housing for the Malayan people as part of its strategy to weaken the support for communist insurgencies by Chinese residents (Agus, 1989).

After independence, the First Malaysia Plan (1966–70) was implemented in 1966 with the objective of providing housing as a component of social services for the local population, particularly the indigenous people of the Malay Archipelago. Despite this, the government was more concerned with the provision of houses for its employees. Low-cost housing became a lower priority (Ubale et al, 2012).

The race riots of 1969 (which occurred due to economic imbalances between the indigenous people, the Chinese and the Indians) pushed the federal government to act on housing. In 1971, it introduced the New Economic Policy (NEP), which became a significant part of the second Malaysia Plan (1971–75) to eradicate poverty irrespective of race. The key principle of the NEP was to help the indigenous people own 30 per cent of the national wealth. The policy stipulated that both the public and the private sectors should undertake housing programmes. It also required private developers to allocate 30–40 per cent of their planned housing units for indigenous sales at a minimum discount rate of five per cent (Agus, 2002). In the period 1969–76, 265,000 dwellings were constructed, two-thirds of which were produced by the private sector (Johnstone, 1984).

In the third Malaysia Plan (1976–80), the government set the ambitious objective of ensuring that all Malaysians lived in decent homes. It increased investment in public housing from RM78m to RM212m, although this represented a smaller proportion of the total budget. This resulted in the construction of some 17,000 low-cost units by the public sector, which were mainly used to accommodate those households displaced by the clearance of squatter settlements. This represented 70 per cent of the third Malaysia Plan's construction targets, and only a small proportion of those units were truly low-cost (Johnstone, 1984). During this period, the Low-Cost Housing Finance Programme was introduced in 1977 to provide loans to low-income households.

By the 1980s, the provision of low-cost housing was starting to shift from the public sector to the private sector. From the fourth Malaysia Plan (1981–85) onwards, the federal government has imposed a 30 per cent quota for low-cost housing to be built by private developers in each residential development. As a result, the public sector's housing production output declined: it constructed 51 per cent of the planned units, while the private sector managed to complete only 21.3 per cent of the low-cost housing target (as stated in the fourth Malaysia Plan) (Agus, 1989). As a result, the total number of public housing units constructed between the second and the fourth Malaysia Plans was 409,476, of which 110,794 units were low-cost housing (Agus, 2002). In the fifth Malaysia Plan (1986–90), the federal government launched several strategies to improve the output of public housing production, such as promoting the use of prefabricated systems of construction and simplifying legislation and regulations. To expand home ownership, Cagamas Berhad (Cagamas), the National Mortgage Corporation was established in 1986. Owned jointly by the National Bank and private financial institutions, it provides security to those providing housing loans (Samad et al, 2016).

In the early 1990s, influenced by the World Bank's 1993 report *Housing: Enabling Markets to Work*, the Malaysian government embarked on economic liberalisation, abandoned its role as the producer of housing and adopted the enabling role of managing the housing sector as a whole. Public expenditure on housing significantly reduced, and the private sector took over the responsibility of providing affordable housing, including low-cost housing (Shuid, 2016). As a result, in the sixth Malaysia Plan (1991–95), the public sector completed 48.6 per cent of the 174,000 units planned, while the private sector completed 399,000 units or 141.1 per cent of the private sector target (Agus, 2002). In the seventh Malaysia Plan (1996–2000), the government expanded its affordable housing programmes and introduced low-medium-cost housing for low- and middle-income households; it also aimed to complete 350,000 units of low-medium-cost housing. It established the Syarikat Perumahan Negara Berhad (the Malaysia Housing Corporation) in 1997, with RM2bn in capital, to coordinate and implement all low-cost housing funds on behalf of the public sector, as well as manage the projects abandoned because of the Asian financial crisis. However, this led to the increased production of middle- and high-cost housing by private developers. By 2000, only 21 per cent (or 72,582 units, see Table 9) of targeted low-medium-cost housing were built (Shuid, 2004). Because of the financial crisis, many newly built housing units were unsold. By the end of June 1999, the number of unsold residential properties was estimated at 93,500 units (Ezeanya, 2004).

	Seventh Malaysia Plan 1996–2000		Eighth Malaysia Plan 2001–05		Ninth Malaysia Plan 2006–10	
	Public sector	Private sector	Public sector	Private sector	Public sector	Private sector
Housing for the poor	17,229	0	10,016	0	31,700	0
Low-cost	60,999	129,598	103,219	97,294	42,300	53,500
Low-medium-cost	18,782	53,800	22,826	61,084	9,600	25,000
Medium-cost	21,748	206,208	30,098	222,023	27,200	91,000
Total	**118,758**	**389,606**	**166,159**	**380,401**	**110,800**	**169,500**

Sources: Prime Minister's Department (2000); (2006); (2010)

Table 9: Provision of affordable housing by public and private sectors, 1996–2010

From 2000 onwards, housing prices started to grow (KH Institute, 2015). In response, the federal government widened its commitment to provide affordable housing for all income groups. It also gave special attention to low-cost housing in the eighth Malaysia Plan (2001–05). The overall performance of houses built under the low-cost housing category was encouraging, with 200,513 units completed (86 per cent of the target). Table 9 shows that 103,219 units (52 per cent) were constructed by the public sector. However, the private sector surpassed the target with a surplus of 352,374 units (most were medium- and high-cost housing; Mohd and Alias, 2008). The ninth Malaysia Plan (2006–10) produced fewer affordable houses (Table 9), because the private sector surpassed its targets in both the eighth and ninth Plans, creating an oversupply of medium- and high-cost housing (Mohd and Alias, 2008).

Overall, despite the government's commitment to providing affordable housing for low-income households, the allocation for affordable housing development expenditure between 1971 and 2000 was below ten per cent of the total national expenditure (Mahamud and Hasbullah, 2011). Thus, it is not surprising to find that since the third Malaysia Plan, the low-cost housing programme has persistently failed to meet its target. Also, because of excessive government control, the public sector's involvement in providing low-cost housing was declining. Nevertheless, more than 1.3m low-cost housing units were built by both private and public sectors during this period. This significantly reduced the number of squatters from 571,261 in 1999 to 71,662 in 2013 (Shuid, 2016).

6.6 Affordable housing policy after 2010

Since 2010, house prices accelerated upwards to reach an annual growth of 11.8 per cent in 2012 (Tan, 2013). To ease the affordability crisis, the National Housing Policy was launched in 2011. The main focus was to expand home ownership among the middle-income households who were overqualified for low-cost housing and at the same time unable to afford the housing provided by private developers. The federal government introduced the MFH, PR1MA and PPA1M schemes as part of the tenth Malaysia Plan (2011–15). In 2013, the government made a commitment to build at least 1m affordable housing units by 2018. PR1MA was tasked to build 500,000 units by 2018. As of April 2017, 265,033 units of PR1MA housing were approved across the country, while 136,569 units were under construction. However, a lack of land and the reluctant involvement of private developers have hindered the implementation of

PR1MA projects. Alongside PR1MA, PPA1M was also tasked with delivering 100,000 units by 2018. Surprisingly, PPA1M exceeded the target two years early. This remarkable achievement by PPA1M has encouraged the government to set a new target for PPA1M to accomplish: which required PPA1M to build 200,000 units by 2018 (Abd. Shatar et al, 2017).

In summary, Malaysia's housing stock grew from 3.7m to 4.9m between 2005 and 2015, a growth of approximately 35 per cent. Despite this substantial expansion, the shortage of housing supply at the national level continues to remain due to the rapid formation of new households. The gap between housing stock and the number of households widened from 2.1m units in 2005 to 2.5m units in 2015 (REHDA Institute, 2016). The shortage of housing supply has been particularly acute in the affordable housing category. By 2015, 102,200 affordable housing units had been completed for poor, low- and middle-income households as part of the tenth Malaysia Plan (Prime Minister's Department, 2015).

6.7 The future

The achievements of the public and private sectors with regard to providing affordable housing in Malaysia have been consistently unsatisfactory, despite the numerous programmes initiated by the federal government and the regulations imposed on the private sector to build low-cost houses. Initially, the affordable housing policy was focused on poor and low-income households only. However, after 2011, it widened to cover poor, low- and middle-income households. In reality, the affordable housing programmes' heavy reliance on the private sector has favoured middle-income households, and this affects the performance of the low-cost housing programmes. As a result, there has been a persistent shortage of supply of low-cost affordable houses, particularly in major urban areas.

7 Republic of Singapore (Singapore)

7.1 Summary profile

Economic indicators		**Population indicators**	
GNI per head	$52,350	Country – population	5.6m
GNI growth	5.3%	Capital (Singapore) – population	5.6m
Gini coefficient	46 (35th)	Urban growth – population	1.3%
Environmental indicators		**Human development indicators**	
Urban pop. water	100%	Corruption Perceptions Index	84 (6th)
Urban pop. sanitation	100%	Human Development Index	0.925
CO_2 emissions	10.31	Life expectancy (F/M)	83

Sources: World Bank – World Development Indicators 2016; United Nations Development Programme (Human Development Index); Transparency International (Corruption Perceptions Index)

Table 10: Republic of Singapore (Singapore) – key indicators

The Republic of Singapore (referred to as Singapore hereafter) is a small, densely populated island state at the southern tip of Peninsular Malaysia, close to the equator. Of the countries in the paper, Singapore has the smallest population and – similar to China – has been exercising significant controls on natural population growth. It is a highly developed economy, with the highest GNI per head in this paper. CO_2 emissions per person are the second highest, exceeded only by South Korea, and Singapore is ranked 53rd in the world for total CO_2 emissions. Singapore is perceived as having low levels of corruption, and it scores very high on the Human Development Index. The housing system is based on the provision of owner-occupied dwellings, mainly built by the government. Land is in state ownership and occupied through long leasehold arrangements. Singapore operates one of the most advanced land administration systems in the world.

Figure 15: Map of Singapore

7.2 Current housing tenure structure

Singapore is one of the few countries in the world to have successfully introduced and implemented a large-scale public housing programme, with universal provision of 99-year leasehold home ownership for all its citizens. The Housing and Development Board (HDB), the statutory board responsible for public housing in Singapore, has built nearly 1m high-rise dwellings. Of the 1.225m resident households (households headed by a Singapore citizen or permanent resident) in 2015, 80 per cent resided in HDB-built flats. The home ownership rate for Singapore was 91 per cent in 2015, while the home ownership rate within HDB dwellings was 92 per cent (Department of Statistics, 2016).

7.3 The delivery of public housing

Most of the housing in Singapore is government funded, and public housing is subsidised and built by the government, through the HDB, for low- to middle-income households. The Singaporean government provides annual grants to the HDB from the current budget to cover the deficits incurred for development, maintenance and upgrading of estates, and loans for mortgage lending and long-term development purposes.

The *Land Acquisition Act* 1966 is the main tool for the government to allocate land for the HDB to build public housing on a large scale. Under the Act, the government can compulsorily acquire any private land for commercial use in the public interest. The Act provides for the payment of compensation, which is determined by the state. In determining the payment rate, no account is taken of any potential value for more intensive uses: only the existing use or zoned use is considered, whichever is lower. The prices paid by the government for the acquired lands are therefore usually much lower than the market price. By 2002, the state owned about 90 per cent of all land (Haila, 2015). This draconian approach has helped the government to lower the costs of housing provision and has been particularly helpful in the early phases of housing delivery.

7.4 Public housing for sale

Although it is supported by public funds, the HDB is essentially a private developer. It is responsible for all aspects of the public housing programme, including managing its estates and providing commercial and industrial premises – as well as recreational, religious and social facilities – in its housing estates. The broad spectrum of tasks and projects undertaken by the HDB provides ample opportunities for it to derive income. Revenue is also generated by ancillary facilities, such as car parks and markets. Returns from these income-generating activities are then directed towards financing further public-housing construction. The HDB also receives government loans to finance mortgage lending for its flat-buyers.

The major form of public housing provided by the HDB is subsidised owner-occupied housing. Since 1964, flats have been built by the HDB and sold at a discount. Demand is regulated by eligibility rules, such as household income, non-ownership of private properties at the time of application and citizenship status, and by the need to wait at least two and a half years for a flat. The median house type sold by the HDB has four rooms and is approximately 90m^2 (Phang, 2009). Numerous regulations have been put in place to restrict the subletting and resale of HDB flats.

Figure 16: Affordable housing in Singapore

A new form of subsidised owner-occupied housing, the Executive Condominium (EC), was introduced in 1995. It is a hybrid public-private sector offering, providing housing for the upper-middle income group who can afford more than an HDB flat but find private property to be out of their reach. The government auctions land for the development of EC units to housing developers (private as well as government-linked companies), who are responsible for the design, construction, pricing and financing and estate management arrangements. Applicant households have to satisfy eligibility conditions, and they have to abide by the resale and other regulations governing these units. The units can be sold after five years to Singaporeans and permanent residents, and they can be sold after ten years to foreigners. Buyers of EC units cannot buy an HDB flat directly from the government again.

The purchase of HDB flats is facilitated by a unique financing system, the Central Provident Fund (CPF), a mandatory tax-exempt social security savings fund instituted in 1955. Every wage earner is compelled to save a portion of their monthly wage with the CPF, with proportional contributions from the employers. The CPF operates in a circuit in which financial resources are channelled from the public via the CPF to finance the construction of public housing, which the public, in turn, purchase using their CPF savings. CPF funds are also used to purchase government bonds that are partly used to finance loans and subsidies to the HDB. These setups enable the government to draw from the savings of the public to finance public housing. The HDB can thus avoid the expensive interest rates of commercial lending institutions.

As the HDB has a virtual monopoly over the housing market, the market does not determine the price of housing. The low price is set by the government, through the Ministry of National Development, taking into account the state of the economy and the levels of affordability of the general public at any point in time. To make them affordable, the selling prices of flats are equivalent to about two years' income of the purchasers. Smaller flats are subsidised more than larger flats (Yuen, 2007). Each price increase is carefully studied by the government. This has worked towards encouraging home ownership among the Singaporean public, even among those in the lowest income brackets.

7.5 Public housing for rent

Because of the bias towards home ownership, the public rental housing sector (the social housing sector in Singapore) has always been marginalised. It is completely regulated by the HDB and provides minimum standard housing (mostly one- and two-room flats) for the lowest-income families. A proportion of rental units also cater for 'transitional' families waiting for their home ownership flat, as well as to foreign workers in Singapore.

HDB rentals and direct purchases of HDB flats and EC units (one unit per household) are restricted to citizens. The resale HDB sector is available to citizens and permanent residents. The HDB flat allocation system is also used to promote traditional family values (for example, to encourage early marriage and allow married couples to live close to their ageing parents). Flats are allocated to families before singletons, on a first registration basis (Yuen, 2007). However, the pro-family rules have been slowly relaxed over the years, allowing single citizens to purchase HDB flats.

HDB flat allocation is also used to implement the Ethnic Integration Policy, introduced in 1989, to ensure that each block of flats has a diverse ethnic group that reflects the diversity of Singapore. In 2016, Chinese comprised 74 per cent of the resident population, with Malays and Indians at 13 and 9 per cent, respectively (Department of Statistics, 2016). If the owner of an HDB flat sells their home, they must obtain the consent of the HDB and ensure that the new home-owner is from an approved ethnic group.

7.6 How Singapore's public housing policy developed

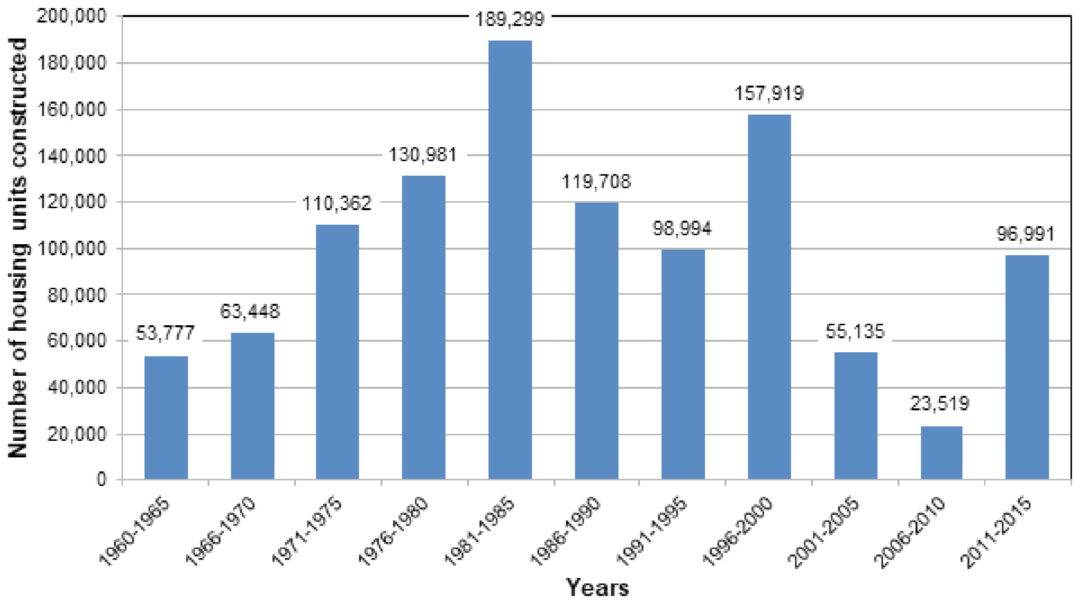
Since the time of independence in 1965, public housing policy has been at the very core of the nation-building processes to promote a sense of belonging for its citizens (Heo, 2014). Prior to independence, the majority of the population lived in overcrowded pre-war rent-controlled apartments lacking access to water and modern sanitation. Public housing built by the Singapore Improvement Trust (founded in 1927 by the British colonial government) housed only 8.8 per cent of the population by 1959 (Phang and Helble, 2016). Because of the chronic housing shortage, the government made it a priority to provide homes on a large scale.

In the 1960s, the government first established the HDB to replace the Singapore Improvement Trust in 1960 and then enacted the *Land Acquisition Act* 1966 for the acquisition of land for the development of public housing. Basic low-cost high-rise public rental flats were built to accommodate the households affected by slum clearance. In 1964, believing that home ownership would make the population feel that they had a stake in the future growth of Singapore, the government introduced a subsidised home ownership programme enabling residents to own a 99-year lease on their units. The HDB imposed a price cap on these units and offered loans to ensure home owners paid less in monthly mortgage payments than they would have done in rent. In addition, housing grants were given to eligible households at the point of purchase (Phang and Helble, 2016). In 1968, the government expanded the role of the CPF as a vehicle for housing finance, which allowed Singapore citizens to use their CPF savings to buy HDB flats. The shift towards home ownership has implied that public housing was not associated with low-income housing but has instead become a mainstay for the entire citizen population (Chua, 2000).

By the 1970s, the HDB-CPF housing framework worked effectively to channel resources into the public housing sector. By the 1980s, the housing shortage had been solved. In the late 1980s, the aim of the housing policy had shifted towards renewing ageing HDB-built estates and creating a market for HDB transactions so that households could upgrade to larger four- or five-room HDB flats or private housing. The resale market allowed home owners to sell their unit at market-determined prices and transformed home ownership into a lucrative asset, from the sale of which home owners could accrue significant (and tax-free) capital gains.

In 1990, the HDB's housing stock increased rapidly to 574,443 units from 120,138 units in 1970, housing 87 per cent of the resident population. The home ownership rate for the resident population increased to 88 per cent from 29 per cent in 1970 (Phang, 2015). In 1995, to meet the aspirations of upper-middle income households, the government introduced the EC scheme. The restrictions on purchasers of HDB resale flats were also relaxed, which allowed permanent residents, single citizens and private home owners to purchase HDB resale flats. The volume of resale HDB flat transactions increased from fewer than 800 units in 1979 to 13,000 units in 1987 and 60,000 units in 1999 (Phang and Helble, 2016).

A series of economic recessions, starting with the 1997 Asian financial crisis and followed by the SARS epidemic in 2003, created financial uncertainties in Singapore, which led to a slowing down of public housing purchases. At the end of 2002, the HDB found itself holding 17,500 completed unsold flats (Chua, 2015). To avoid deflating the public housing market, the pace of HDB housing construction slowed dramatically from 2000 to 2010 (Figure 17).



Source: HDB (2017)

Figure 17: Construction of HDB dwelling units, 1960–2015

In the second half of the 2000s, the considerable influx of immigrants and the scarcity of housing stock created a housing shortage and rapidly rising housing prices. Since 2006, various rules have been imposed to curb speculative investment in housing. The Additional CPF Housing Grant was also introduced to allow households with lower incomes to receive a larger grant to purchase either a new or resale HDB flat (Phang and Helble, 2016). Despite all these measures – and after 60 years of steady increases – by 2008 the price of public housing had risen to a point of being unaffordable to new entrants to the housing market (Chua, 2015). In 2009, facing a rapidly ageing population, the government introduced the Lease Buyback Scheme. The scheme allows home owners of homes with three or fewer rooms to sell some of the remaining years of their lease to the HDB in return for a lifelong supplement to their income (Ronald and Doling, 2010). In addition, elderly households can sublet their HDB flat, downsize to a smaller flat or relocate near their children (McLaren et al, 2016).

7.7 Public housing policy after 2010

Housing affordability and immigration policy became critical issues in the April 2011 general election. Since then, the government has been increasing the supply of HDB flats (Figure 17). Housing supply increased from 9,000 in 2009 to 25,000 in 2011; by 2014, more than 50,000 new housing units had been pumped into the market (Chua, 2015). In 2011, in order to discourage new home owners of HDB flats from selling their property, the government introduced a penalty stamp duty for the vendor. Then in 2013, it increased the stamp duty on the purchase of all property in Singapore. New home ownership rules for permanent residents have been imposed, which require permanent residents to wait for three years from the receipt of their permanent resident status to be eligible to purchase a resale HDB flat. They are also required to dispose of any properties they might hold outside the country, including those in their countries of origin (McLaren et al, 2016). At the same time, several housing grants were introduced to help existing HDB home owners upgrade and purchase larger HDB flats. After many rounds of 'cooling' regulations and following an increase in HDB housing, the prices of public housing had started to decline by mid-2013 (Chua, 2014). Despite this, there is generally a shortage of public rental units in the HDB sector, particularly for non-Singaporean residents and Singaporean households in transition from private housing to public home ownership (Phang and Helble, 2016).

7.8 The future

From the outset, public home ownership in Singapore has been about political stability. Through the HDB-CPF housing framework, the Singaporean government has effectively mobilised savings for housing and contributed to a very large public housing sector, and it has one of the highest home ownership rates in the world. As public housing has become a valuable asset, the ruling government's legitimacy to rule has become highly dependent on its ability to deliver public housing that is affordable for new home owners, as well as to protect the property value of public housing for existing home owners.

8 Republic of Korea (South Korea)

8.1 Summary profile

Economic indicators		**Population indicators**	
GNI per head	$27,690	Country – population	51m
GNI growth	2.34%	Capital (Seoul) – population	10m
Gini coefficient	36 (93rd)	Urban growth – population	0.6%
Environmental indicators		**Human development indicators**	
Urban pop. water	100%	Corruption Perceptions Index	54 (51st)
Urban pop. sanitation	100%	Human Development Index	0.901 (18th)
CO_2 emissions	11.8	Life expectancy (F/M)	82

Sources: World Bank – World Development Indicators 2016; United Nations Development Programme – Human Development Index; Transparency International (Corruption Perceptions Index)

Table 11: Republic of Korea (South Korea) – key indicators

The Republic of Korea (referred to as South Korea hereafter) in East Asia occupies the southern part of the Korean peninsula. It has a population of just over 50m people with an urban/rural split of 62/38 per cent. It has a highly developed, technology-based economy, and it is fourth in this paper in terms of GNI per head. Its Gini coefficient suggests an uneven distribution of income. CO_2 emissions per capita are the highest among the countries in this paper and the country ranks ninth in the world for total CO_2 emissions. Perceptions of corruption place South Korea among middle-ranking countries, and the country scores high on the Human Development Index. The government has been heavily involved in house-building and promoting home ownership, with very little rented housing, although the programme has become more important in the last decade. Land is mainly in private ownership, and South Korea operates a well-developed cadastral system of land administration.

Figure 18: Map of South Korea

8.2 Current housing tenure structure

One important feature of the housing policy in South Korea is an overwhelming orientation towards housing construction. South Korea's long-term average proportion of housing investment as a percentage of gross domestic product from 1970–2014 was 5.1 per cent – a level comparable with the United States' figure of about 5 per cent (Kim and Park, 2016). Housing policies have therefore focused on housing suppliers and promoting home ownership. The home ownership rate was 56.8 per cent in 2015, which had increased slightly from the 2010 rate by 2.6 per cent (Statistics Korea, 2015). A quarter of South Korean households live in *chonsei* rental housing; however, in big cities – including Seoul – the figure rises to nearly one-third (La Grange and Jung, 2013). *Chonsei* is a specific form of private rental housing in South Korea. The tenant pays an up-front, lump-sum deposit, which is typically between 40 and 70 per cent of the property value, to the landlord for the use of the property. The landlord repays the nominal value of the deposit to the tenant upon contract termination. There are no additional requirements for the tenant, such as periodic rental payments. For the tenant, the deposit is in the form of compulsory savings that can be used as seed money for buying a home; it has thus been considered a steppingstone to home ownership. For landlords, *chonsei* deposits provide a source of investment capital without recourse to private banks and banking charges. *Chonsei* has become less important as a financing mechanism in recent years, because monthly rental contracts and mortgage financing have become more popular than in the past (Kim, 2004).

Public rental housing (or permanent public rental housing) stock is very small, accounting for five per cent of the total housing stock in 2012 (Kim and Park, 2016).

8.3 The delivery of affordable housing

Housing policy in South Korea focuses mainly on the supply side and finance to make housing affordable to its citizens. The Korea Land and Housing Corporation (founded in 2009 by merging the Korea National Housing Corporation [KNHC] and the Korea Land Corporation) is the main public institution to acquire land and construct and manage public housing. It is a self-financing public enterprise, and it has the vested power given by the government to acquire land for large-scale housing development. It also benefits from sizeable tax relief in relation to land acquisition activities, as well as receiving government grants. In addition, it receives large-scale funding support from the National Housing Fund (NHF, established in 1981), which is managed by the government.

8.4 Affordable housing for rent/sale

In South Korea, as long as the units are built on publicly developed lands with a government subsidy, they are categorised as public housing. There are two types of public housing: permanent and non-permanent. Permanent public rental housing (constructed from 1989 to 1993) is for very low-income households and vulnerable people, including single parents, North Korean refugees, poor elderly and disabled households. It was produced and managed by the KNHC. The government provided 85 per cent of its funding, with the NHF providing the remaining 15 per cent. Rent was set at 10–20 per cent of market rent. However, this form of provision was very small.

Figure 19: Affordable housing in South Korea

The majority of public rental housing is non-permanent, with a fixed-term tenancy of 50 or 30 years. Long-term public rental housing (50-year tenancy) is allocated to people displaced by urban development or regeneration projects, as well as people with 'distinguished service to the nation'. The state contribution to construction costs is 50 per cent, with 20 per cent from the NHF, 10 per cent from tenants' deposits and the rest derived from developers. Rent is set at 50–70 per cent of market rent. In contrast, national public rental housing (30-year tenancy, which was introduced in 1998), is designed for low- and middle-income households that do not own houses. Government subsidies account for up to 40 per cent of total construction costs, so much higher deposits are required. Rent is set at 70–80 per cent of market rent (Kim, 2014; Lee and Ronald, 2012). At the end of the rental period, the non-permanent public rental housing is converted to owner-occupied housing: some purchased by existing tenants, the remainder by other buyers.

Public housing tends to be built on a large scale on readily available public land located at the outskirts of the city. A permanent public rental housing complex has an average of 1,086 units, while more recent national public rental housing reaches an average of 668 units (Kim, 2014). All types of public rental housing are smaller than 85m^2, but the permanent public rental houses for the lowest-income households are much smaller than other types of rental houses (Park and Kim, 2015).

8.5 How South Korea's affordable housing policy developed

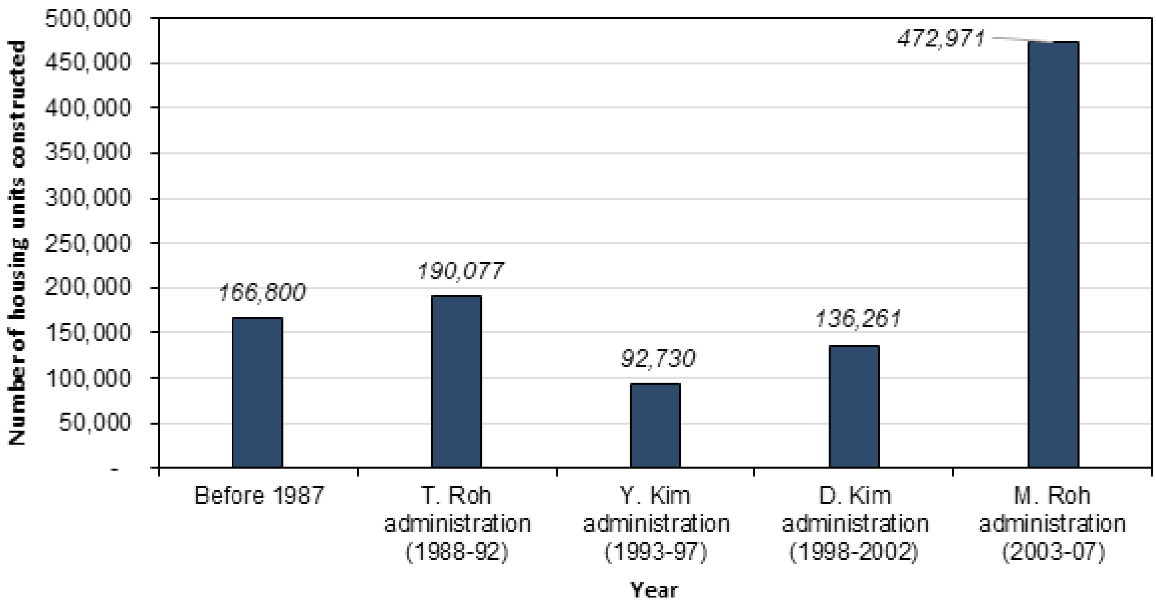
After the Korean War (1950–53), the government had to focus on rebuilding in the midst of political unrest. It regarded housing as a low-priority sector compared with manufacturing or infrastructure for facilitating economic development; therefore, it did not allocate many resources to housing. Underinvestment in new housing created a chronic housing shortage throughout the 1960s to the mid-1980s (Kim, 2014).

In the 1960s, the institutional structure of the housing policy and its implementation began to emerge. First, in 1962, the C. Park military regime introduced public-sector housing developments as a component of a series of five-year economic development plans. The KNHC was established as a government agency to construct public housing. However, it was set up as a self-financing public enterprise and was unable to build housing for low-income families. Instead, it primarily provided housing for sale to middle-income households. Then, in 1963, the *Public Housing Act* was enacted to assign local governments the responsibility of providing public housing, especially for the lowest income households. To allow cost recovery, the earliest form of public housing had tenancy limited to one year, with the property sold thereafter to tenants. In the period of 1962 to 1971, a total of 866,000 housing units were constructed, but the share of public housing accounted for only 12.5 per cent of these (Park, 2007).

In the 1970s, the problem of housing shortages became very serious as supply failed to meet the demand caused by the growing urban population and rising incomes. The *Housing Construction Promotion Act* 1972 was enacted with a national 10-year Housing Construction Plan to construct 2.5m housing units from 1972–81. Public funds were primarily channelled into low-income housing through private developers who also received tax benefits. However, private housing providers were not keen to invest in affordable housing for low-income households, especially public rental housing (Ronald and Jin, 2010). Thus, even though the government drew up a massive housing supply plan, the provision of public housing was very limited. Nearly 1.88m housing units were constructed, of which 65,000 apartments were public rental housing that would be sold to their occupants within a mandatory period of one or two years (Park, 2007).

In 1980, the *Residential Land Development Promotion Act* was enacted to give the Korea Land Corporation (established in 1979) the vested power to acquire land for KNHC's housing production. The NHF was then created in 1981 as a government agency to provide housing finance to the KNHC and private developers, as well as below-market loans to first-time home-buyers. Since public resources were made available for economic development, few were left for housing provision. The shortage of decent housing during a period of rapid economic growth resulted in a sharp increase in housing prices across major cities around the time of the 1988 Seoul Olympics. To respond, the T. Roh administration enforced powerful anti-speculation policies and pledged to build 2m new dwellings between 1988 and 1992, in conjunction with the development of five new towns around Seoul beginning in 1989. Incorporated into this state-led housing supply plan, a permanent public (social) rental housing programme was introduced to accommodate 250,000 very low-income (income decile one) households. In addition, the government increased financing through the NHF, and the KNHC shifted from facilitating private development to providing public rental housing.

In September 1991, because the public sector faced a shortage of available funds, the government's planned permanent public rental housing production was reduced from 250,000 dwelling units to 190,000. In 1993, the first civilian government under the Y. Kim administration adopted the New Economy Plan, which advocated reduced market intervention. Housing policy focused on deregulation and the promotion of private-sector supply. The permanent public housing programme was abolished: it built approximately 190,077 units between 1989 and 1992 (Figure 20). It was replaced by long-term tenancy (50 years) public rental housing, which was produced and managed by the KNHC. Between 1993 and 1997, 92,730 units were built (Figure 20). The reduction of government expenditure (from 80 to 50 per cent) resulted in higher rents (80–90 per cent of market rent), which implied that this long-term public rental housing was for middle-income households rather than the very poor. The 1997 Asian financial crisis led to record drops in rents and house prices and reduced housing construction. In 1998, to protect the poor and those that were adversely affected by the economic shock, the D. Kim administration resumed the supply of long-term lease public housing and introduced a national rental housing programme through the mass construction of public rental housing. This was leased on a medium- to long-term (between 10- and 20-year) basis. To facilitate the national rental housing development, the central government released a substantial amount of green belt land surrounding the major cities (Seo and Joo, 2018). Eligibility for public housing was extended from income decile one to deciles one to four, meaning it covered, in principle, 40 per cent of the Korean population (Richard and Lee, 2012).



Sources: Ronald and Lee (2012); Kim (2014); Lee (2017)

Figure 20: Construction of public rental housing units

Note: public rental housing units built before 1992 were permanent public rental housing. Those built in the Y. Kim administration were 50-year tenancy public rental housing. Those built between 1998 and 2007 were national rental housing.

In 2001, the radical measure to increase the new supply of housing over a short period of time eventually removed the absolute housing shortage at the national level. However, in Seoul, the number of housing units has always been less than that of its households (Ha, 2010). Between 1998 and 2002, 136,261 national rental housing units were built (Figure 20). Also, after 2002, the tenancy of all national rental housing was extended to 30 years (Richard and Lee, 2012). In 2003, the M. Roh administration expanded the provision of national rental housing to 2.5m units under the Five Million Housing Construction Plan (2003–12). Between 2003 and 2007, 472,971 national rental housing units were built (Figure 20). However, in 2008, the M. Lee administration changed its policy direction by reducing the supply of public rental housing in the *Bogeunmari* Housing Plan (2009–18) to 0.8m rental flats and 0.7m subsidised sale flats (Seo and Joo, 2018). Then, in 2009, the two major public-sector institutions in South Korean housing policy – the KNHC and the Korea Land Corporation – merged to form the Korea Land and Housing Corporation to stimulate the private sector's housing production in both the home ownership and rental sectors.

8.6 Affordable housing policy after 2010

In 2010, South Korea was at a stage where the number of houses exceeded the total number of families (Kim, 2014). Around 1.399m units were classified by the government as public rental housing (permanent and non-permanent), representing 9.5 per cent of the total housing stock. The total number of permanent public rental housing units was 667,000, or 4.5 per cent of all housing (La Grange and Jung, 2013). After the global financial crisis, housing prices stagnated and the housing market became sluggish, with 165,000 units remaining unsold across the nation in 2010 (Lee and Ronald, 2012).

In 2013, in the midst of the economic downturn, the G. Park administration maintained the housing policy agenda of the earlier administration by strongly supporting home ownership. Reflecting rising popular discontent among middle- and lower-middle-income households, it launched a new *Haengbok* (happiness) housing policy to provide a new type of public rental housing for young people (e.g. college students, newlyweds and early career workers) in large cities. As lots of urban regeneration projects were cancelled due to the downturn of the real estate market, the administration established a new urban regeneration policy by linking it to the 'happy house' policy. This would provide not only a housing service but also start-up activities and employment for the young generation. The lease period was set at six years, but it could be extended by up to ten years if single occupants married or newlyweds bore two children. Since 2015, central governments have given local governments responsibility for initiating and submitting proposals for 'happy house' projects that fit their local contexts and needs. The central government would then award its grants to selected proposals (Seo and Joo, 2018). However, the provision of this new public rental housing faced unexpected barriers, such as strong social resistance against public rental housing and the negative attitude of local governments (Lee, 2017). In 2015, about 4,820 'happy house' units were built nationwide, with 35 per cent of them in Seoul (Seo and Joo, 2018).

After 2010, as rents maintained a continuous increasing trend, the central government introduced a new housing benefit scheme in July 2015 to replace the old scheme, which was set up in 1999 as a component of the general welfare grant. It aimed to relieve the rent burden for low- and moderate-income families. It provides a monthly cash subsidy based on household income, family size, rent level and location of residence (Kim et al, 2016).

8.7 The future

There is an apparent shift of the South Korean housing policy from supporting owner-occupied market housing production in the 1990s to the expansion of public rental housing in the 2000s. As a result, there has been a significant expansion of the public rental housing sector, albeit from a small base. However, the social element of public housing to provide limited permanent housing for the very poor has been replaced by a wider provision of fixed-term public housing for low- to middle-income households.

Since the late 2000s, housing policy has reverted back in favour of home ownership. In fact, with the exception of permanent public rental housing, non-permanent public rental housing is orientated towards home ownership. Despite the apparent success of increasing the quantity of public housing stock over the last 30 years, many South Koreans feel that home ownership is unaffordable and rental housing is inadequate and expensive. Increasing the supply of affordable housing, particularly public rental housing for very poor households, remains a crucial task for South Korea.

9 Thailand

9.1 Summary profile

Economic indicators		**Population indicators**	
GNI per head	\$5,700	Country – population	69m
GNI growth	3.4%	Capital (Bangkok) – population	9.3m
Gini coefficient	44.5 (42nd)	Urban growth – population	2.6%
Environmental indicators		**Human development indicators**	
Urban pop. water	98%	Corruption Perceptions Index	37 (96th)
Urban pop. sanitation	90%	Human Development Index	0.74
CO_2 emissions	4.62	Life expectancy (F/M)	75

Sources: World Bank – World Development Indicators 2016; United Nations Development Programme (Human Development Index); Transparency International (Corruption Perceptions Index)

Table 12: Thailand – key indicators

Thailand in Southeast Asia has a population of approximately 70m. There is an even split between urban and rural dwellers, with a major population concentration in Bangkok – one of the world's mega-cities. As a newly industrialised economy, it is defined as an upper-middle-level country in terms of its development. Its Gini coefficient places it among middle-ranking countries in terms of income distribution. CO_2 emissions are more than four times those of the Philippines, but approximately half those of South Korea. The country's total CO_2 emissions rank it 20th highest in the world. The country is poorly perceived in terms of corruption, and it is middle-ranking on the Human Development Index. Urban sanitation is not available to all, and there are still urban areas where clean water is not accessible. The overarching policy is to promote home ownership with support from the government for low- to middle-income households. Land is mainly in private ownership, and Thailand operates a well-developed land administration system.

Figure 21: Map of Thailand

9.2 Current housing tenure structure

Thailand's housing policy is to promote home ownership. The 2010 Population and Housing Census reported that its home ownership rate was 77 per cent. However, the home ownership rate has fallen over the last 20 years: it was 87 per cent in 1990 and 82 per cent in 2000. In line with increasing migration to urban areas in the Bangkok metropolitan region and higher costs of living, the home ownership rate in the region was lower: it was 50 per cent in 2010, falling from 61 per cent in 1990 and 56 per cent in 2000 (JICA, 2013). In 2012, 12 per cent of Thai households lived in rental housing, while in the Bangkok metropolitan region it was about 37 per cent (Kritayanavaj, 2012).

9.3 The delivery of affordable housing

Thailand has no comprehensive national housing policy. However, three main government organisations, the Government Housing Bank (GHB), the National Housing Authority (NHA) and the Community Organisations Development Institute (CODI), are responsible for providing new housing units at affordable prices for two major groups: low- and middle-income households, and slum inhabitants.

9.4 Affordable housing for sale/rent

The GHB, founded in 1953, is a government-owned organisation operating under the supervision of the Ministry of Finance. It was established with the special objective to provide housing finance to developers and home-buyers. To make housing loans more accessible and housing more affordable, the GHB provides mortgage loans with the lowest lending rates in the market. In 2010, it launched a zero per cent loan for first-time middle- and low-income home-buyers to purchase homes priced at between 1–3m baht. The loan can be used to buy a house and the piece of land attached to it, or it may be used for purchasing a piece of land

and constructing a home. Tax incentives have also been given to first-time buyers since 2011, when the 'first-home' policy was introduced (JICA, 2013). The loans are limited to a maximum of 100 per cent of the appraisal value or the purchase price of the land and building. The maximum term for these special loans is 30 years. However, the zero per cent interest rate only applies for the first two years of the loan (Chailimpamontri, 2011). The GHB also encourages small landlords who have their own land to construct cheap rental apartments with affordable loans. It provides up to 100 per cent of the total construction cost, with a repayment period of 15 years (Kritayanavaj, 2012). According to JICA, approximately 38 per cent of households have used GHB loans to purchase housing units at one time or another since the establishment of the bank (JICA, 2013).

Figure 22: Affordable housing in Thailand

The NHA is a public housing developer established in 1973 under the Ministry of Social Development and Human Security. It is responsible for supplying houses (for sale and for rent) to low- and middle-income households in urban areas. Although a state enterprise, it is expected to be a self-supporting agency. It can borrow necessary funds from the government or public by issuing bonds (Wattanasiritham, 1997). Between 2003 and 2009, it launched the Baan Eur Artorn (BEA) Housing ('Caring Housing') Programme to provide access to home ownership for lower-middle-income households, including civil servants and government employees. Land for the BEA project came from NHA-owned land, public agency land and the sale of private land, and, in general, land represented approximately 60 per cent of the cost of housing (Calhoun, 2005). The houses were priced at 390,000 baht, with government subsidies of 80,000 baht per unit (Boonyabancha, 2005). The majority of BEA units were 33m^2 condominiums located in the intermediate zone of Bangkok. Other units were semi-detached or detached houses located in the suburban areas of Bangkok (Viratkapan and Perera, 2006). The GHB provided low-interest loans to buyers with limited NHA guarantees. Properties were purchased using a hire-purchase agreement with fixed interest rates of between 5–7 per cent during the first five years and floating thereafter. The NHA guaranteed loan repayments for the first five years. After the initial five years, the household received the rights to the property and had to obtain a mortgage. Purchasers who obtained post-loan financing retained a right of occupation for up to 30 years; otherwise, they had to vacate the property (Prachuabmoh, 2005).

The CODI, established in 2000, is a public organisation under the Ministry of Social Development and Human Security. Its operation is more like a non-profit organisation, bridging the gap between the state and poor communities. In 2003, the Thai government, through the CODI, executed the Baan Mankong ('Secure Housing') Programme as part of its efforts to provide affordable home ownership to slum inhabitants. The programme promotes community-driven approaches to housing by encouraging slum inhabitants and squatters on the land they currently occupy to form cooperatives/community organisations. They can negotiate for a long lease period or buy land collectively, as well as improve infrastructure and upgrade or rebuild houses. The government, through CODI (acting as programme facilitator and budget administrator) and the NHA, provides a 15-year loan at 2 per cent interest per year. Community organisations can add margins of 2–5 per cent, so that members will pay around 4 to 6 per cent. The government subsidises housing development costs up to 20,000 baht, with the remaining housing loans at market interest rates (Calhoun, 2005).

9.5 How Thailand's affordable housing policy developed

Before 1940, there was no government concern regarding housing, even though the housing shortage was most acute in Bangkok because of rural to urban migration. The Thai government became active on the issue of housing in 1940, when it created a Housing Division. This was followed closely by the establishment of a Housing Bureau in 1942, but its operation was halted during World War II (Giles, 2003).

In 1950, both the Housing Division and the Housing Bureau became active again. The former was responsible for the construction of public housing, while the latter undertook its management. In 1953, the GHB was established as a housing developer as well as a housing finance institution. However, because the United Nations encouraged self-help housing as the main strategy to solve the housing crisis (Chiu, 1983), very limited funding had been allocated to the operation of public housing programmes, so the output of public housing was small. Between 1950 and 1972, the government undertook eight major housing projects in Bangkok, creating 7,346 units of public housing (Giles, 2003).

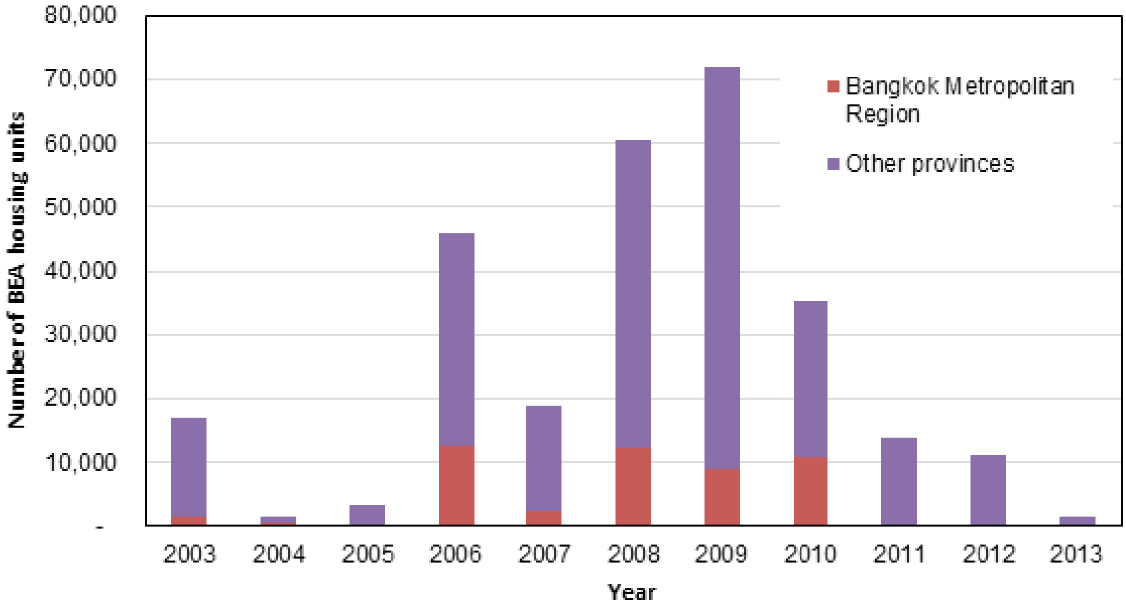
In the 1960s, the rapid growth of Bangkok created a shortage of housing in the city. By 1970, more than 1m people were estimated to be living in informal settlements in the capital (Sheng, 1996). This led to the merger in 1973 of the Housing Division and the Housing Bureau into the NHA, which took over the development activities of the GHB. The NHA's first plan (1974–83) envisaged the direct construction of 170,000 housing units. In 1978, after the construction of 36,868 units, the government terminated the programme because it was too much of a financial burden. A revised plan (1976–80) reduced the target to 120,000 units, mainly rental walk-up apartments. This plan was also cancelled because it required heavy subsidies. In 1976, under pressure from the World Bank, the NHA shifted its focus from the direct construction of rental apartments to slum improvement and sites-and-services schemes (Sheng, 2002).

In the 1980s, owing to the strong backing of influential international agencies, especially the World Bank, the Thai government adopted an enabling strategy to promote the participation of the private sector in national development. It reduced the subsidy to the public housing programme, and the NHA became self-financed. Since then, the NHA has abandoned all direct construction of low-income housing and acted as a coordinator, adviser and supporter of the private sector in the provision of housing (Sheng, 1996). Between the 1970s and the 1980s, the NHA produced some 20,000 rental apartments, with sizes of 27–52m^2, at an average monthly rent of 300 baht in Bangkok (Sheng and de Wandeler, 2010). Through public-private partnership, the NHA started to build mixed-income housing projects in which low-, middle- and higher-income households were integrated to live on the same site. To support private developers, the government executed land use reform, lowered property taxes and introduced low-interest mortgages. For example, the GHB reduced interest rates for home-buyers. With growing income and cheaper mortgages, low-income housing became attractive for private developers. As a result, many private developers competed for projects by providing a range of building types that yielded affordable prices. Most of these were four- to five-storey walk-up apartments, with a floor area of 30–40m^2 per unit (Sheng and de Wandeler, 2010).

In 1992, to empower low-income households and their community organisations, the Urban Community Development Office was established (Sripanich et al, 2015). The government funded an initial capital outlay of 1.25m baht, called the Urban Community Development Fund, to strengthen slum inhabitants' financial capacity, and this was later extended to promote community networks among community organisations across the country (Dhabhalabutr, 2017). Then, in 1993, the government further boosted housing development by awarding a five-year corporate tax exemption to private developers to build low-income housing units (under 600,000 baht) through the Board of Investment. The Board of Investment is a national organisation charged with encouraging investments in Thailand and overseas. Its incentives were primarily corporate income tax exemptions (30 per cent). Between 2007 and 2011, 149 housing projects, totalling 63,718 units (an average of 12,743 units per year) were built with these incentives (Kritayanavaj, 2012). However, the tax incentives have been suspended since 2012 because of the oversupply of housing units (JICA, 2013).

To overcome the high cost of land, labour and building materials, developers began the construction of low-cost condominium projects. The projects consisted of one or more buildings of four or five floors, with up to 100 units per building (Sheng, 1996). At the same time, market liberalisation and financial deregulation led to a large influx of foreign capital. Developers used medium- and short-term loans in foreign currency to finance long-term real estate projects. Between 1994 and 1997, a total of 297,347 low-cost housing units were built by private developers in the Bangkok metropolitan region (Dhabhalabutr, 2017). A relatively large percentage of these units were taken up by higher- and middle-income households for habitation and property investment. The abundance of capital and the large-scale speculation on real estate had resulted in an enormous oversupply of housing. A study commissioned by the GHB found that of the 350,000 vacant housing units in the Bangkok metropolitan region, many of them were low-cost condominium units (Sheng, 2002). In July 1997, currency speculators forced the government to devalue the baht. This resulted in the collapse of the real estate market and the Asian financial crisis. Austerity measures demanded by the International Monetary Fund brought the economy almost to a halt. Government policies shifted towards promoting self-sufficiency and decentralisation.

In 2000, the CODI was formed through the merger of the Urban Community Development Office and a rural development fund. In January 2003, the Thai government announced the 'One Million House' programme in an effort to solve the urban low-income housing issue within five years (2003–07). This was divided into two separate programmes. The first was the BEA programme, in which the government instructed the NHA to build 600,000 units (477,000 units in the Bangkok metropolitan region and 123,000 units in other provinces). The second was the Baan Mankong Programme, in which the CODI upgraded another 300,000 units as part of slum improvements. The NHA started supplying BEA housing in 2003 and accelerated the supply after 2005 (Figure 23): this occurred after private sector involvement in the BEA programme was approved in 2005. However, it soon faced the problem of a surplus of housing, resulting in very serious financial problems. In 2007, the NHA was asked to reduce the supply target, and finally, in 2009, the government decided to terminate the programme (Leeruttanawisut and Fukushima, 2017).



Source: Leeruttanawisut and Fukushima (2017)

Figure 23: BEA housing units supplied by the NHA, 2003–13

9.6 Affordable housing policy after 2010

In 2010, the number of housing units stood at 21.7m, which was an increase from 16.6m in 2000. On average, about 500,000 new housing units were built in Thailand every year. Since 1973, more than 95 per cent of units have been supplied by the private sector. Only four per cent of units have been supplied by the NHA, CODI and other public housing providers, and many of these public housing units are located in the Bangkok metropolitan region (JICA, 2013).

By January 2010, the Baan Mankong Programme was being carried out in 1,546 urban poor communities, benefiting over 90,000 households in 277 cities and towns. Among the households, 34.8 per cent had a collective long-term lease (Archer, 2012). Sheng (2014) finds that the success of the programme depends heavily on the CODI's work to build the solidarity of the community, especially in communities that have a few not-so-poor households looking after many very poor. The latter tend to be reluctant to borrow large amounts of money to acquire land and improve or rebuild houses.

From 2003 to 2013, a total of 281,550 BEA housing units were produced by the NHA. Of these, 50,202 units (27.4 per cent) were located in the Bangkok metropolitan region, while 133,267 units (72.6 per cent) were in five surrounding provinces in the vicinity (Figure 23). Because of the weakness of the ‘one price fits all’ policy, which suited buyers in the Bangkok metropolitan region but failed to lower the prices for those in smaller towns where land was cheaper, the NHA suffered a huge financial loss. The NHA solved this problem by changing the eligible income (from a monthly income of 15,000 baht or less to below 40,000 baht). As a result, many BEA apartments were either occupied by middle-income households or left unsold (Sheng and de Wandeler, 2010).

9.7 The future

Over the past decades, government initiatives to provide affordable housing for the urban poor have produced mixed results. The NHA has built large numbers of housing units for the poor, but middle-income households have captured many of the benefits. The government, through the GHB, has played an active facilitating role to enable private developers to build low-cost housing. However, many of these low-cost housing units, particularly in Bangkok, were sold but remained vacant. Even though the Baan Mankong Programme is improving the housing conditions of the urban poor, its approach is labour-intensive, resulting in slow progress. Due to the absence of a long-term national housing policy that provides overall objectives and policy directions, the contribution of the public housing sector to address the housing needs of the poor will continue to remain insignificant.

10 Countries with low levels of data and information

10.1 Indonesia

10.1.1 Summary profile

Economic indicators		Population indicators	
GNI per head	$3,410	Country – population	261m
GNI growth	5.1%	Capital (Jakarta) – population	10m
Gini coefficient	37 (83rd)	Urban growth – population	3.6%
Environmental indicators		**Human development indicators**	
Urban pop. water	No data	Corruption Perceptions Index	37 (96th)
Urban pop. sanitation	61%	Human Development Index	0.689 (113th)
CO_2 emissions	1.82	Life expectancy (F/M)	69

Sources: World Bank – World Development Indicators 2016; United Nations Development Programme (Human Development Index); Transparency International (Corruption Perceptions Index)

Table 13: Indonesia – key indicators

Indonesia is a large country in Southeast Asia comprising over 17,000 islands. It straddles the equator and is prone to seasonal tropical storms. It is also located in a seismically active area that is prone to tsunami events. With a population of over 250m, it is the third most populous country in the world. It has an urban/rural split in population of 55/45 per cent. The rate of population growth is high and more than half the population is located on one island, Java, where the capital Jakarta is situated. The GNI per head places it in the World Bank's lower-middle-income group. Its Gini coefficient indicates a weak distribution of income in the population. CO_2 emissions per person are among the lowest in this paper, but the country ranks 12th highest in the world for total CO_2 emissions. The country ranks poorly in terms of perception of corruption, and it is ranked very low on the Human Development Index. The vast majority of housing is informal and often of a very low standard. Government involvement in infrastructure and housing accounts for a very small proportion of its budget. Information on overall water supply is not available and just over half the population benefits from urban sanitation. Data on housing need and provision are also scarce. Land is in private ownership, and land administration systems are weak.

10.1.2 The delivery of affordable housing

Although the government of Indonesia increased its budget allocation to the housing sector by over 60 per cent between 2010 and 2013, the overall budget allocated to housing, infrastructure and development has remained at only about 1.8 per cent of the national budget in the last four years. According to official estimates, 7.9m housing units are considered of substandard conditions, with two of the three basic structures – wall, floor and roof – in need of repair (OHCHR, 2013). Because of the lack of housing investment, the housing backlog in Indonesia was estimated at 13.5m units in 2014 (Rachmawati et al, 2018). Accordingly, 80 per cent of housing development in Indonesia has been constructed through informal self-help systems of housing provision (OHCHR, 2013).

10.1.3 Affordable housing for sale

Several government agencies (including local government, the Ministry of Public Works and Housing and the state agency *Perumnas*) supply limited affordable rental housing (*Rusunawa*), which are rental apartments at a subsidised low rent. It has two target groups: informal settlers who were evicted and relocated, and government employees or students. Between 2010 and 2013, 14,185 units were built by the Ministry of Public Housing in the country. This number was small largely because the government lacked the necessary finance to acquire land for public use (OHCHR, 2013).

In 2007, the government of Indonesia launched the National Program for 1,000 Towers to increase adequate housing supply in metropolitan cities in the form of high-rise, low-cost owner-occupied apartments (*Rusunami*). To encourage private real estate developers to join the programme, the central government provides tax incentives, simplified permits and infrastructure to reduce the development cost and therefore lower the purchase cost of the apartment, while the local government provides the land for the project's development. However, developers had taken advantage of all subsidies and locations to build middle-class condominiums instead of low-cost apartments (OHCHR, 2013).

The major constraint to providing affordable housing is the limited availability of urban land. The situation has become more severe in the last 15 years, as private developers have dominated urban development (OHCHR, 2013). Also, the chaotic land registration system makes it difficult to officially acquire land for public use (Tunas and Peresthu, 2010).

10.2 Pakistan

10.2.1 Summary profile

Economic indicators		**Population indicators**	
GNI per head	$1,500	Country – population	193m
GNI growth	4.7%	Capital (Karachi) – population	17m
Gini coefficient	31 (130th)	Urban growth – population	3.2%
Environmental indicators		**Human development indicators**	
Urban pop. water	91%	Corruption Perceptions Index	32 (123rd)
Urban pop. sanitation	48%	Human Development Index	0.55 (147th)
CO_2 emissions	0.90	Life expectancy (F/M)	66

Sources: World Bank – World Development Indicators 2016; United Nations Development Programme (Human Development Index); Transparency International (Corruption Perceptions Index)

Table 14: Pakistan – key indicators

Located in South Asia and with a population of 193m, Pakistan is one of the most populous countries in the world. Much of the country is mountainous, and the area is prone to earthquakes. The population is mainly rural, with an urban/rural split of 36/64 per cent. The urban population is concentrated in a large number of cities of over 1m population. At $1,500 GNI per head, Pakistan is the poorest country in this paper by this measure, just below India. Pakistan also has the lowest CO_2 emissions per capita of the countries in this paper, but it ranks 31st in total CO_2 emissions. The country performs poorly in perceptions of corruption and human development. Land is mainly in private ownership, and land administration systems are weak.

10.2.2 The delivery of affordable housing

Pakistan is the sixth largest country in the world by population, with a 1.5 per cent yearly population growth rate (Jabeen et al, 2015). Approximately 81 per cent of dwellings are owner-occupied, 9 per cent of households are living rent-free and 11 per cent are renting (Nenova, 2010). The country is facing a shortage of 9m residential houses, and it is expected to reach 10m by the year 2020 (Jabeen et al, 2015). To overcome this housing backlog, the government has taken initiatives such as the construction of low-cost housing under a dedicated Prime Minister's Program, the Apna Ghar Scheme in Punjab, Behan Benazir Basti (Benazir Housing Program) and the Shaheed Benazir Bhutto Housing Scheme in Sindh**,** as well as similar programs in other parts of the country. It also launched the *National Housing Policy* 2013 to facilitate the provision of shelter to the poor throughout Pakistan using suitably located and affordable land. The main features of the policy include the Prime Minister's vision of constructing 500,000 housing units in Pakistan within the next five years. In pursuance of the above policy measures, the government of Pakistan has taken several measures, which include digitisation of land records, reforms of the land acquisition and disposal system, and encouragement of the private sector to enter the housing sector (Government of Pakistan, 2015).

However, the housing conditions are for the most part overcrowded, and suffer from inadequate sewerage, pollution, poor building construction leaving inadequate protection from extreme weather, and no security of tenure. Almost half of the total urban population now lives in squats or informal settlements (Gazdar and Mallah, 2011).

The greatest challenges that housing is facing at the moment in Pakistan are the inefficiency of the overall regulatory regime, including land and titling procedures; a poor regulatory framework for housing and real estate; poor government success in addressing low-income housing needs; and a lack of commercially viable housing microfinance lending (Nenova, 2010).

10.3 Philippines

10.3.1 Summary profile

Economic indicators		**Population indicators**	
GNI per head	$3,580	Country – population	103m
GNI growth	6.5%	Capital (Manila) – population	12.8m
Gini coefficient		Urban growth – population	0.5%
Environmental indicators		**Human development indicators**	
Urban pop. water	94%	Corruption Perceptions Index	34 (111th)
Urban pop. sanitation	74%	Human Development Index	0.682 (116th)
CO_2 emissions	1.06	Life expectancy (F/M)	69

Sources: World Bank – World Development Indicators 2016; United Nations Development Programme (Human Development Index); Transparency International (Corruption Perceptions Index)

Table 15: Philippines – key indicators

The Philippines is in the western Pacific Ocean. It comprises over 7,500 islands, with a population of over 100m people. The urban/rural split is approximately 47/53 per cent. More than a tenth of the population is concentrated in its capital city, Manila – one of the world's mega-cities. The country is close to the equator and is also prone to earthquakes and typhoons. Although its economic growth rate is currently strong, its GNI per head is low, placing it in the lower-middle-income ranking of the World Bank. The Philippines' ratings are poor in terms of perceptions of corruption and human development. Basic infrastructure provision, particularly urban sanitation, is absent in many areas, and informal settlements are prevalent. CO_2 emissions per capita are among the lowest of the countries in this paper, but its total CO_2 emissions rank it 37th highest globally. Land is in private ownership, and land administration systems are weak.

10.3.2 Current housing tenure structure

Home ownership is the dominant tenure in the Philippines. According to the 2015 Census of Population, 55 per cent of total households (22,969,666) owned their house or lot (PSA, 2018). However, a significant percentage of the population were in informal housing tenure. For example, more than 20 per cent of total households in 2012 were either renting a lot or house, or renting a lot under informal arrangements, with landowners that usually had no legal rights over land (Ballesteros, 2016).

10.3.3 The delivery of affordable housing

In 1992, through the *Urban Development and Housing Act* 1992 (UDHA), which aimed to alleviate homelessness and legitimise the rights of the urban poor to housing, the national government assigned local government units (LGUs) to be at the forefront of providing housing for the urban poor. LGUs identify locations for social housing, while the private sector participates in the financing and construction leveraged with various tax and non-tax incentives given by the local and central governments. Through the UDHA, the government has developed a system of balanced housing development in which private developers of residential subdivision/condominium projects are required to develop an area for socialised housing equivalent to at least 20 per cent of either the total subdivision area or total subdivision project cost.

These requirements can be complied with by developers through:

1. the development of a new settlement
2. slum upgrading/renewal of areas for priority development either through zonal improvement programmes or slum improvement and resettlement programs
3. joint-venture projects with either the LGUs or any of the housing agencies or
4. participation in the Community Mortgage Programme (Pampanga et al, 2015).

Between 1987 and 2015, around 2.79m households were assisted with housing through resettlement, upgrading, sites and services, and other special projects. The total number of households assisted represent a little less than 30 per cent of the estimated backlog for this period (Monsod, 2016). The major challenges are the limited availability of affordable land, inadequate housing delivery mechanisms and weak, uncontrolled and inadequate planning for the provision of housing in major urban areas (Land and Governance Innovations, Inc., 2016).

10.4 Vietnam

10.4.1 Summary profile

Economic indicators		**Population indicators**	
GNI per head	$2,160	Country – population	93m
GNI growth	4.92%	Capital (Hanoi) – population	7.78m
Gini coefficient	35 (98th)	Urban growth – population	3%
Environmental indicators		**Human development indicators**	
Urban pop. water	98%	Corruption Perceptions Index	33 (117th)
Urban pop. sanitation	78%	Human Development Index	0.069 (116th)
CO_2 emissions	1.8	Life expectancy (F/M)	76

Sources: World Bank – World Development Indicators 2016; United Nations Development Programme (Human Development Index); Transparency International (Corruption Perceptions Index)

Table 16: Vietnam – key indicators

Vietnam is a relatively poor and densely populated country in Southeast Asia, with almost 100m people. It is predominantly rural, with an urban/rural split of 35/65 per cent. The country has a tropical climate and experiences seasonal tropical storms. Since 1986, Vietnam has been emerging from communism, and it is engaged in economic and political reforms to increase the country's prosperity. The economy, which was mainly agricultural, has been growing strongly but from a very low base. The country performs poorly on perceptions of corruption and measures of human development. Significant parts of urban areas experience inadequate water supply and sanitation. Vietnam has one of the lowest levels of CO_2 emissions per capita in this paper, but it is ranked 30th in the world for total CO_2 emissions. Land is in state ownership, and land administration systems are weak.

10.4.2 The delivery of affordable housing

Before *Doi Moi* (open door economic reforms) was introduced in 1986, housing production in Vietnam was monopolised by the state, which distributed housing exclusively to state employees. Following *Doi Moi*, the housing sector has shifted from a centrally planned public housing approach to a market-oriented system. To boost the production of housing, the ban on self-help building activity was lifted at the end of the 1980s. Accordingly, self-built housing has dominated the housing sector: by 2014, 75 per cent of houses in urban areas were self-built (Seo and Kwon, 2017). In 1992, the provision of rental housing for state employees was terminated (Tran and Yip, 2008). In 1994, the government started to privatise the existing state-owned housing stock. By 2006, 68 per cent of the state's housing stock had been sold to sitting tenants (Gough and Tran, 2009). In 2005, the *Housing Law* officially launched the development of 'social housing'. However, social housing is not aimed at socially vulnerable groups, although it is specifically targeted at state employees (Tran and Yip, 2008). Since 2009, the Vietnamese government has issued a series of policies with huge incentives, including an exemption from land use levy, to attract foreign and domestic investors to build social housing units for eligible target groups to rent and hire-purchase. However, foreign investors have no desire for social housing development, although some domestic investors are willing to invest (Quynh, 2011).

The *Housing Law* was revised in 2015 to provide the framework to support affordable housing segments (with a focus on the housing shortage and the necessity of creating affordable decent housing for the lower-middle class). It also highlighted self-built housing as an important component of the national housing policy and intervention programmes (Samad et al, 2015). At the moment, many urban low- and middle-income households have to rely on the informal self-built sector to build their houses in peri-urban areas (Ministry of Construction, 2016).

11 Conclusions

In all Asian countries, there are concerns about the lack of adequate standard affordable housing. The extent to which this is reflected in government policy depends on the country's history and stage of development, as well as the availability of resources. Most Asian countries have seen the provision of housing generally as part of the growth agenda rather than as an aspect of welfare.

While the details vary greatly between countries – in particular due to economic pressures, the speed of development and population growth, financial markets and the nature and effectiveness of land and planning legislation – three approaches dominate the provision of affordable housing in Asia:

1. public sector model: government-led with large resources
2. private sector model: private-led with government enabling and
3. informal delivery model: formalisation programmes that provide a legal and infrastructure framework to support individual investment.

In the Asian countries considered here, owner-occupation is seen as the long-term goal, even where governments have a history of direct involvement in land allocation and housing investment.

Appendix A References

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