

Bhutan Urban Policy Notes Affordable Housing Policy

This paper is part of a series of four Urban Policy Notes that provide a critical review on emergent challenges to Bhutan’s increasing urbanization and its ramifications for growth, livability and sustainability in line with the directives of the 12th Five-Year Plan (FYP) and the Vision 2020. The four notes are: (a) Regional Development, (b) Municipal Governance and Finance, (c) Affordable Housing and (d) Urban Resilience. These notes build on the long engagement between the Royal Government of Bhutan (RGoB) and the World Bank on urban issues as well as the experiences of urban operations under Bhutan Urban Development Projects I (1999-2006) and II (2010-2019) and are intended to support the RGoB on key and emerging urban topics and guide Bank’s future analytical and investment support in the urban sector.

Executive Summary

1. Bhutan’s demographic shifts underline the need for increasing access to quality affordable housing. The country has experienced the fastest rate of rural-urban migration in the region. Accompanying rapid economic growth of around 6 percent between 2012 to 2017, Thimphu District’s population increased by 40 percent, Sarpang’s by 19 percent and Chuka’s by 15 percent. This influx of people has greatly increased the demand for quality affordable housing in urban areas. Urban populations have housing needs that are different from rural populations, based on income and consumption characteristics, household formation rates, and demand for greater diversity of housing preferences at different life stages in terms of housing unit types, sizes and locations, and tenure.

2. Housing is an important source of household wealth and intergenerational mobility. Homes are often the most expensive purchase that a household will ever make. Evidence also shows that housing quality has an important impact on household health outcomes (in particular respiratory and digestive health) and children’s school attendance among others, which has long term positive implications for public health conditions and for local labor markets. Housing is also a key driver of national economies (contributing up to around 20 percent of GDP in higher income countries) through investment and employment in construction, materials, financing and related services.

3. The 2002 National Housing Policy lays out the general policy framework for housing. The Policy sets a goal of providing “safe, basic and affordable housing, promote homeownership and create a transparent and well-functioning housing market.” However, the Policy does not clearly define questions of affordability or housing need, especially for low income or vulnerable groups. A related law, the 2004 Tenancy Act, details protections for tenants and landlords and charges the Ministry of Works and Human Settlements (MoWHS) with regulatory and administrative purview of the housing sector. The Royal Government of Bhutan (RGoB) also provides indirect subsidies for public sector workers in the form of below market rental rates on public housing and below market interest rates on home loans. It is not clear, however, if these subsidies are targeted to and benefiting people that could otherwise not afford quality housing.

4. Overall, most citizens have access to serviced housing units as estimates suggest that the quantitative housing deficit is low and will likely stabilize as the population growth rate declines in the coming decades. However, there are several important qualifications. First, housing in rural areas is largely self-built, owner-occupied and more likely to have quality deficits (in terms of construction material and basic service connections) than are urban housing units. Owner-occupied housing is around 78 percent in rural areas but only 16 percent in urban areas. Urban areas consist primarily of rental housing and a few informal settlements which lack decent services and have substandard and impermanent dwelling units.

Data on expenditures and rental rate increases suggest that urban housing is unaffordable for the median income household, meaning that middle and lower income quintiles would spend more than one third of their incomes on housing costs. Globally, a basic housing affordability standard are housing expenditures no more than 25-30 percent of household income.

5. Critical bottlenecks in the delivery of affordable and quality housing are best understood through supply and demand value chains. On the supply side, key issues include land administration, planning standards and regulations, infrastructure provision, construction labor and materials. On the demand side, limited access to finance instruments such as loans and mortgages that meet consumers' ability to pay are key. This note finds the following critical constraints which impact the cost of housing provision:

Supply Side:

- Land administration and infrastructure planning encourage peri-urban expansion. With the exception of select instances of land pooling, other land value capture instruments, such as property taxation or betterment fees, which can be used by municipal governments as incentives to control and manage urban expansion and facilitate new affordable housing, are largely absent from urban areas. Developers are also constrained by the inability collateralize land for construction finance, which raises the costs and risks to develop land for housing or other purposes.
- The construction industry lacks the capacity deliver housing at consistent quality standards. This is due in part to the cost of importing materials, the lack of a skilled labor force experienced with new and alternative materials and equipment and the uneven application of build material standards quality assurance and building code compliance.

Demand Side:

- Formal participation in banks and savings institutions is low. As a result, mortgage finance for housing is uncommon, expensive and a small fraction of consumer finance. Even if incomes and savings rates increase and banks offer more competitive mortgages, it is unlikely such products will reach far beyond upper middle-income groups. There is a lack of alternative products, such as housing microfinance, which could reach low and middle-income groups with limited credit history. Such loans can also complement the incremental and savings-based approaches to home expansion and improvement which is already common throughout the country.

6. Across board, data on housing markets, prices and trends in Bhutan is limited. Limited information on current housing stock, public and private actors, market trends, institutional capacities of key stakeholders, affordability and housing finance availability limits the ability of policymakers to prioritize policy responses and target public interventions to meet the needs of the neediest groups.

7. While Bhutan does not face a major quantitative housing gap, improvements to housing markets can expand access to low income groups and improve quality of housing. Revisions or updates to the 2002 National Housing Policy need to consider how the government can better enable the private provision of housing to meet demands of different income groups. Based on global experience, key areas that merit the attention of policymakers are summarized below.

8. **Clarifying the role of government in housing:** In the context of Bhutan, both national and local governments have an important role to play in enabling housing markets and ensuring equitable provision of housing. On the supply side, this includes the establishment and maintenance of a land cadaster and registry system; the application and enforcement of appropriate building, zoning and development standards; providing infrastructure and utilities, and ensuring training and quality control standards for construction labor, materials and methods. On the demand side, the central government has a key role in

adopting policies and implementing regulations that encourage savings deposits which enable financial institutions to reduce risk and access capital markets, offer a greater number of consumer and developer finance instruments and support the development and sharing of information and data base systems tracking creditworthiness, property market activity and so forth.

9. **Enabling more housing finance options for developers and low-income groups:** On the finance side, assessing the viability of land collateralization could lead to reforms that allow developers to leverage the value of land they wish to build on to secure construction finance. Additionally, an enabling policy framework for alternative types of lending for commercial banks, such as housing microfinance, would allow banks to experiment with these instruments for middle and lower middle-income borrowers for incremental upgrades and improvements.

10. **Strengthening housing subsidy system:** Currently RGoB subsidizes both the supply and demand sides of housing for public employees by building and managing housing and by subsidizing rents or consumer finance. If housing subsidies are not well targeted, based on income or location criteria, they can crowd out private sector finance and construction and/or they may be channeled to groups that could otherwise afford market-rate housing without subsidies. A comprehensive review of housing subsidies needs to be conducted to identify actions to ensure subsidies are better targeted and leveraged.

11. **Enabling access to serviced land:** Larger cities like Thimphu and Phuentsholing can strengthen land administration, including zoning and development standards to encourage higher density and mixed uses. This can build on the success of land pooling to include other types of land value capture instruments such as density bonuses and housing set asides. Planning and standards should also reflect principles of urban resilience, both in the types of materials and construction and in how climate and hazard mitigation are integrated into development plans. Finally, the supply of affordable rental housing can be enhanced through incentives to landlords and or directed subsidies to eligible tenants.

12. **Reviewing building codes and construction standards:** A review of the construction standards and materials sector should be undertaken to enable a wider range of acceptable construction materials and techniques that meet basic safety standards in greater options for builders and to reduce costs to consumers. Training and certification programs for builders and workers can strengthen professional standards and quality across the industry. Improved building codes would ensure principles of urban resiliency to respond to natural hazard and climate change risks in addition to principles of energy and water efficiency

13. **Establishing housing related data systems and indicators:** Publicly available data systems and market observatories are needed as a foundation for sharpening housing policy and enabling markets. These systems can be used to document and track land, rental and property markets (prices, locations, volumes) can be used to help developers and consumers better calibrate decisions to build, rent or purchase and resolve legal disputes. Credit reporting systems linked to national ID cards can help lenders better assess creditworthiness of informal or unbanked potential borrowers. All of these systems can also be used to develop and calibrate housing subsidy targeting to reach low income groups.

I. Introduction to Affordable Housing¹

1. The government has identified housing affordability as an important and emergent issue impacting Bhutan’s urban future.² This policy note responds to the need to deepen the policy dialogue on the issue and potential way forward. The note briefly reviews the current context of urbanization and housing in the country, identifies critical gaps and challenges in the sector and proposes next steps to address some of these challenges drawing on a review of secondary data and providing an analysis focusing on different aspects of the housing value chain (annex 1).

II. Main Trends and Key Findings

2. Bhutan is a small mountainous landlocked country at the crossroads of an urban transition. Sharing borders with two of the world’s largest economies, China and India, Bhutan is less than one percent the size of each and with approximately 727,000 people. Over the last 15 years, per capita GDP has doubled to USD \$2,751 as the economy moves away from a reliance on agriculture toward a services and manufacturing base. It has also experienced the fastest rural-urban migration rate in the South Asia region for the period 2000-2010 with an annual growth rate of 5 percent, with the capital and main city, Thimphu, now home to about 15 percent of the total population.³ In 2017, 37.9 percent of the total population lived in urban areas.⁴ Accompanying rapid economic growth of around six percent from 2012 to 2017, the population of Thimphu Dzongkhag increased by 40 percent, Sarpang by 19 percent and Chuka by 15 percent.⁵ This influx has greatly increased the demand for quality affordable housing in urban areas such as Thimphu and Phuntsholing.

3. Bhutan is experiencing serious demographic changes, which show a growing contrast between urban and rural areas and the underlying housing needs. Urban migrants often tend to be young and single, with a lower dependency ratio than rural areas.⁶ In 2017, the mean age of male household heads in urban areas was 3 years less than their rural counterparts; for females, 4 years.⁷ Urban households are also smaller than rural households (3.97 versus 4.36 average members). More than half of the elderly population lives in urban areas and the share of the elderly as a portion of the total population is expected to quadruple by 2040.⁸ These demographic trends will determine the future housing need, including household formation rates, and a greater diversity of housing preferences at different life stages in terms of housing unit types, sizes and locations, and tenure (rentals versus ownership). As rural-urban migration continues and may even increase, it is even more important to understand how the housing sector functions and to address critical bottlenecks to avoid future problems. Housing scarcity - particularly for low income groups and recent rural migrants – can encourage the growth of slums and informal settlements. Slums tend to emerge in areas where land may otherwise be undesirable due to environmental contamination, or natural hazard risks such as flooding or landslides which raise the costs of upgrading and servicing these settlements. These factors, along with the likelihood of high levels of social exclusion and the concentration

¹ Housing “affordability” refers to how much a household pays for shelter. There is some debate about how this amount varies in different places, but a common standard of housing affordability is no more than 25-30 percent of total monthly expenses for rental, mortgage or maintenance. For housing purchase, a house is typically affordable if it is worth between 3 and 5 times the total annual household income. Housing units are not inherently “affordable” or “unaffordable” – rather affordability is part of a series of market and policy interactions that effect the ability of different households to pay a reasonable amount for housing.

² Key planning and urban policy documents, including the Vision 2020, National Urban Strategy and Human Settlement Strategy detail the need to address housing issues.

³ Ellis and Roberts 2015;

⁴ Population and Housing Census of Bhutan (PHCB) 2017.

⁵ 2017 BLSS, 2012 BLSS

⁶ Dependency ratio refers to the share of household members of working age compared to those who are children or elderly. A higher dependency ratio indicates more household members depend on the earnings of working members.

⁷ BLSS 2017, page 68.

⁸ Royal Society for Senior Citizens, 2012; Population Perspective Plan 2010

of poverty in slums contributes to poor quality of life, acute public health risks and a lack of opportunities for upward economic and social mobility.

Housing Stock and Quality

4. Available data limit a detailed assessment of housing needs and an estimation of the quantitative housing gap. A 2002 Asian Development Bank (ADB) study estimated that Thimphu would need to produce 600 units per year to accommodate demand, and an earlier 1999 study estimated an annual need of 780; suggesting a relatively modest absolute housing gap, even during a period of increasing urbanization, though the current estimated gap is not clear.⁹ More recent data on the total housing stock, however, are scarce. The 2017 Census and 2017 Living Standards Survey do not include details on the number and condition of dwelling units. Rather, they cover households, which are not coterminous with dwelling units. It is difficult to assess how many units are vacant and how many units accommodate more than one household.¹⁰ For example, according to the 2017 Census, the number of households increased from 126,115 to 163,001 in the intercensal period, a total of 29.2 percent or an average rate of 2.4 percent per year. From this trend however, it is difficult to estimate the share of new unit construction, changes in vacancy rates or how many of these households share existing units.¹¹

5. Overall, evidence suggests that future housing demand will slow as the population ages and the growth rate declines. The average annual population growth rate for the intercensal period was a modest 1.3 percent, a number that officials anticipate will continue to decline to a negative next seven years.¹² UN population projections estimate that the country's overall population growth rate will slow to a negative growth rate by 2050, with the urban population growth rate beginning to decline by 2020.¹³ In rural areas, housing supply is not constrained nor as costly for consumers as it is in cities but a greater share of the stock lacks basic infrastructure like improved water or sewerage connections.

6. Housing quality is the main challenge in rural areas. There are few data assessing the current state of the overall housing stock, yet there are some differences between urban and rural areas in terms of connection to basic infrastructure and construction materials. For example, 73 percent of rural households have piped water to their dwelling, compared with 99 percent of urban units; a difference nearly identical for access to improved sanitation facilities.¹⁴ Housing typologies range from single story self-built units using wood, mudbricks, bricks, bamboo/timber panels (ekra) in rural areas to multi story, multi-family buildings of up to six stories constructed with concrete blocks and reinforced masonry in urban settlements.

7. Formal housing provision is dominated by the private sector, but there has been some government involvement on both the supply and finance side. In rural areas, housing is largely financed through savings and constructed by occupants or petty builders, with ownership comprising 82.9 percent of the tenure share.¹⁵ By contrast, in urban Bhutan 63 percent of households rent, and 19 percent own.¹⁶

⁹ ADB 2002; Bajaj, M. 2014. "Thimphu's Growing Pains: Challenges of Implementing the City Plan" The Centre for Bhutan Studies and GNH Research

¹⁰ A household is defined as "consisting of one or more individuals irrespective of relationship occupying the same living accommodation, have common arrangements for food and consume certain goods and services collectively."

¹¹ For example, Gelay (2016) uses GIS analysis to calculate the total number of private buildings in Thimphu as 6,656. Yet given that many of these buildings are multistory apartments, the actual number of dwelling units is not known, but likely much higher.

¹² Ghalley, B. "Bhutan population increased 16 percent in the last 12 years" *The Bhutan Times*. July 1, 2018

¹³ Estimates suggest an overall population growth rate for the period 2015-2020 of 6.5 percent and 17 percent for urban areas. UN Department of Economic and Social Affairs, Population Division. *World Urbanization Prospects: The 2009 Revision*. New York: United Nations

¹⁴ BLSS

¹⁵ 2012 BLSS, page. 47.

¹⁶ The overall homeownership rate in Bhutan is 62 percent.

Both urban and rural housing markets are dominated by the private sector; in Thimphu for example approximately 75 percent of all units are provided by the private sector, slightly less than the national figure of 83.3 due to the concentration of housing for public sector workers.¹⁷ Yet, the share of publicly-owned housing is still significantly high compared to developed countries, such as the United States and much of Western Europe, where this share is typically less than 10 or 15 percent.¹⁸ The remaining stock of formal housing is supplied by a number of public sector entities, such as the Bhutan Housing Development Corporation, the Armed Forces, Ministry of Health, Bhutan Power Corporation and others also build and manage housing for their employees, often at subsidized rents. The country also has a housing provident fund (National Provident and Pension Fund, NPPF) which provides both subsidized rental units and housing loans to government workers that make payroll contributions to the fund.

8. Informal housing in urban areas appears to be limited but is not well understood. Recent migrants with limited resources that are priced out of formal markets are more likely to establish and settle in informal settlements along the urban fringe of larger cities like Thimphu and Phuntsholing. Informal settlements around Thimphu function as labor or workforce camps and house informal sector and low-wage public sector workers.¹⁹ There are limited data on the size and population of these settlements which typically occupy government land, though dwelling units are substandard and made from impermanent materials and lack improved heating or indoor plumbing. In 2002 around 10 percent of Thimphu's population lived in squatter settlements.²⁰ Investments in settlement upgrading has reduced this number substantially and the population living slums and hutments is likely now a few hundred households or less than 2 percent.²¹ This is due at least in part to the successful implementation of a series of land pooling projects in the southern and northern areas of the municipality that enabled the subdivision of land to increase the supply of private housing while also allowing space for trunk infrastructure connections to these new units.

Policies and Institutional Framework

9. Bhutan's 2002 National Housing Policy lays out the general policy framework for housing. The policy sets a goal of providing "safe, basic and affordable housing, promote homeownership and create a transparent and well-functioning housing market." However, the policy does not clearly establish definitions of affordability or need, especially for low income or vulnerable groups. A related law, the 2004 Tenancy Act of the Kingdom of Bhutan, details protections for tenants and landlords and charges Ministry of Works and Human Settlement (MoWHS) with regulatory and administrative purview. It also caps rental increases for institutionally-provided housing units. However, urban growth has increased rapidly in the time since these laws were passed and they may not adequately address current urban housing challenges.

10. The 2019 Revised National Housing Policy identifies affordability and homeownership as key goals. The policy recognizes the importance of housing and the urgency of addressing increasing unaffordability, safety and supply constraints. It also aims to "regulate the housing stock and corresponding housing market to ensure that rental costs do not exceed 30 percent of income" and the government "shall

¹⁷ Gelay, K. 2016. "Low Income Housing Analysis: Final Report" Mimeo. Pg. 21. For the national figure, the estimate is derived from the 2017 BLSS by computing the total share of private homeowners and renters from private landlords.

¹⁸ The Netherlands and Austria are exceptions to this. Japan, Germany, Canada and Eastern Europeans have little to no public-owned housing stock. Source: OECD. 2016. "Social Rental Housing Stock."

¹⁹ Gelay, K. 2016; Thapa, K 2005. "Rental Housing: Myths and Reality: The Roles of Public, Semi-Public and Private Sectors in the Provision of Rental Housing in Thimphu, Bhutan" Masters Thesis, Urban Management, Lund University

²⁰ ADB 2002. Technical Assistance to the Kingdom of Bhutan for Housing Sector Reform. TAR BHU 32375

²¹ This estimate is based on 2017 PHCB data detailing the share of households with units that have impermanent walls and roofs and which do not have electricity.

provide public housing to low-and middle income households.”²² The policy also defines the roles of different institutions in facilitating these objectives, including the National Land Commission for the improvement of land assembly mechanisms for housing, the Royal Monetary Authority to explore the creation of a separate housing finance entity and the National Housing and Development Corporation (NHDCL) as the main developer and operator of affordable units.

11. There are few channels for coordinating public and private sector involvement in the housing sector. Apart from the involvement of the MoWHS, there is no central coordinating entity that monitors the housing sector, including the involvement in housing provision and subsidies by various government agencies and parastatals. At the local level, municipalities are charged with implementing structural plans, but these land use and infrastructure plans have limited emphasis on housing and allow municipalities little if any control over public lands (which falls under the National Land Commission). Local governments also have few tools to link infrastructure investments with private sector development in housing, including instruments for land value capture or public-private partnerships (PPPs).

12. Public entities provide housing subsidies on both the supply and demand sides. The NHDCL is the largest public provider and operator of housing units (a total of 2,050), which are allocated on a first-come, first-serve basis.²³ Rents are capped according to unit size and type. A sample rate of Nu 3.45 per ft² (US\$0.04) in NHDCL units is quite low, because rates are assessed uniformly they are not linked to ability to pay or reflective of the local market conditions, where the implicit subsidy (the difference between the set rates and the corresponding market rates) could be very high. The NPPF also provides rent-controlled units to members; a two-bedroom apartment in Thimphu averages around Nu 3,500 a month (US\$48.50) compared to a similar unit at market rate prices that may cost upwards of Nu 6,000 a month (US\$83).²⁴ The NPPF has also subsidized the interest rates of mortgage loans for members. In 2002 they offered 10 percent interest rates versus 12 percent offered by private lenders) for tenors of 20 years. However, their market share is very low; the 2016 Annual Report lists 41 housing loans in the portfolio.²⁵

13. Demand side subsidies are not clearly targeted beneficiary groups that are most in need of quality housing. The NPPF rents units to waitlisted applicants at below market rates and provides mortgages at below market rates to eligible civil servants, which are effectively subsidies for housing consumption. It is not clear how well these subsidies are reaching those who may otherwise not be able to afford housing. For example, government workers that live in small informal settlements documented in Thimphu either do not have access to the same type of housing subsidies available to other public sector workers or are unable to find affordable units.²⁶ Subsidized loans for housing under the NPPF also appear to serve a very small population, suggesting that the demand for such support is small and could potentially be served by alternative market rate products.

14. Land pooling approaches, such as those recently managed by Thimphu Thromde, are a notable and successful example of making efficient use of urban land to provide housing (see Box 1). Land assembly is a major cost factor in affordable housing provision in urban areas. To address rapid urban population growth and use scarce available land efficiently, Thimphu Thromde piloted a land pooling scheme in four locations, beginning public consultations in 2004. With assistance from the ADB and the World Bank, the approach was expanded to 14 neighborhoods across the city.

²²MoWHS. National Housing Policy (Revised) 2019. Pg. 10

²³ NHDCL operates 1,128 units in Thimphu, with another 500 units under phased construction in Phuentsholing

²⁴ Gelay, 2016, page. 13.

²⁵ Page. 23

²⁶ Gelay, 2016. Gaps in access to provident funds are also found in other countries where low income public sector workers pay into provident funds over their careers but may not be able to access benefits such as subsidized mortgages due to affordability constraints.

Box 1. Land Pooling for Housing Provision

Land pooling is a means to assemble land and provide basic infrastructure and increase the supply of housing. Project sites, residents on agricultural land agreed to give up between 15 and 30 percent of their land in exchange for a smaller plot with trunk road, water and sanitation infrastructure connections and public space amenities. The increased value of the improved plots allowed property owners to building rental housing units and increase population density.

In 2000, prior to land pooling, Lungtenphu a Thimphu neighborhood of 243 HA was home to 1,571 people in 91 dwelling units. Following a USD \$4.2 million investment land pooling, road, water and sewer network extensions, the 2008 Thimphu Development Strategy, the area will be able to accommodate a total of 19,471 residents (more than a 12-fold increase) from land conversion to more compact, multi-family residential uses.

Land pooling required extensive community consultation and discussion to achieve consensus on land contributions, land planning and compensation amounts. However, this approach reduced the potential for conflict or resettlement, provided benefits to land owners in terms of improved property and the potential for additional cash flow from rentals, while at the same time improving density and housing provision.

Source: Norbu, G. 2018 “Land Pooling in Thimphu, Bhutan” in *Global Experiences in Land Readjustment: Urban Legal Case Studies Vol. 7* UN Habitat: Nairobi; MUWHS 2008. Thimphu City Development Strategy;

III. Critical Issues in the Housing Sector

Housing Finance

15. Participation in commercial savings and financial institutions is low. Only 34 percent of the population has an account at a bank.²⁷ This is low compared to the mean for lower middle-income countries of 41 percent.²⁸ The lack of penetration of formal savings both reduces the amount of deposits for commercial lenders, but also represents a large portion of the population that has little or no credit history. Low and middle-income households may well be able to borrow long term for housing purchase or afford a smaller loan for housing improvement or expansion, but because they do not have savings history or credit scoring, banks would be reluctant to extend credit to these borrowers.

16. Formal housing finance for consumers is uncommon and concentrated to high income borrowers. Mortgage finance is available from a number of banks, including the Bhutan National Bank, Bank of Bhutan and Bhutan Development Bank Limited, among others. Typical terms are 10-20 years at an interest rate of between 8 and 13 percent, which is rather high and suggests that, despite a wide number of lenders, there are liquidity and potentially other constraints for offering more competitive mortgages.²⁹ The mortgage penetration rate (the share of people with mortgages) of 5.7 (2014) percent is competitive compared to countries at a similar income level.³⁰ Restrictions on lending by the Royal Monetary Authority (RMA) have capped commercial bank portfolios in mortgage lending to around 20-30 percent of total

²⁷ World Bank Global Findex 2014. <http://datatopics.worldbank.org/g20fidata/country/bhutan>. However as of 2017, the National Financial Inclusion Strategy reports that 64 percent of adults have a savings account (pg. 7)

²⁸ World Bank Global Findex 2014

²⁹ Royal Monetary of Bhutan, Annual Report 2016/17

<https://www.rma.org.bt/RMA%20Publication/Annual%20Report/annual%20report%20%202016-2017.pdf>

³⁰ c.f. Mongolia 4.4 percent, Nicaragua 0.8 percent, Sri Lanka 4.2 percent (2011) from Badev et. al 2014 “Housing Finance Across Countries: New Data and Analysis” World Bank Policy Research Group Working Paper 6756

assets. The RMA has also periodically suspended loans for housing (from 2012 -2014 for example) due to currency fluctuations related to the ngultrum being pegged to the Indian rupee.³¹ There appear to be no other formal housing finance products that could suit middle and lower middle-income borrower groups, such as micro-mortgages or housing microfinance loans. For the low income and informal sector, housing is most likely purchased or improved incrementally through savings, informal borrowing or the use of consumer or microcredit loans (see Box 2).

Box 2. Strengthening Access to Housing Finance for Lower Income Groups

In many countries, only small share of homeowners have access to commercial mortgages. In recent decades, new tools for providing smaller loans to low and middle-income borrowers with little credit history have increased in a number of countries. Housing microfinance loans are a non-collateral loan with amounts and tenors slightly greater than typical small and medium enterprise (SME) microfinance loans, but smaller than traditional mortgages.

In Afghanistan, the IFC and development partners piloted the development of a housing microfinance product with the local commercial bank First Microfinance Bank of Afghanistan (FMFB-A) in 2008, with primary service to the capital city of Kabul. Loan amounts range from between US\$1,000 and 4,000 with a repayment period of up to two years. By 2012, the bank had a total of nearly 11,000 borrowers with a portfolio of over US\$12 million, with less than 5 percent at risk. The success of the product has attracted the interest of other lenders and increased demand to roll out housing microfinance loans to markets in other cities across the country.

Habitat for Humanity's Micro Build Fund has also begun to provide technical assistance to commercial lenders in Bolivia, Kazakhstan, India and Cambodia, among other countries to explore ways of alternative credit assessments for borrowers with little or no credit history, but who would likely be able to afford a housing microfinance loan. They also work with commercial lenders to design and pilot housing microfinance products to identify new markets, train loan officers and improve collection.

Source. IFC 2013. Developing a Housing Microfinance Product: The First Microfinance Bank's Experience in Afghanistan.

17. There is limited scope for expanding mortgage lending beyond middle and upper income groups. A more detailed study of the housing sector is required to better understand housing finance for different income groups with different housing needs, but it is clear that the commercial mortgage market is small. There are alternatives to mortgage finance that may be more suitable to incremental improvements to housing quality for lower income and rural homeowners. See Box 3 in the Annex for an example of non-mortgage housing finance.

Construction Sector

18. The construction sector is important to the economy, but growth is limited by high costs of materials and in inconsistent application building techniques and the application of standards. The construction and building materials sector has the potential to attract investment and skilled labor. For example, in 2011 the construction industry alone contributed 16.3 percent to Bhutan's nominal GDP, with building and construction loans constituting 26 percent of all total investment by private banks.³² However,

³¹ ADB 2016. "An assessment of the financial sector development in Bhutan" No. 44

³² It should also be noted that this figure includes hydropower, a major economic driver. Source: National Construction Industry Policy; "An assessment of the financial sector development in Bhutan" No. 44

finished materials and pre-fabricated housing components, where available, are imported and costly.³³ The lack of materials testing standards and facilities also encourages the use of substandard materials and non-uniform techniques in construction to save on costs.³⁴ Training and capacity building for the building trades and materials industry to provide these materials and specializations locally could reduce costs and stimulate employment. The government has been involved in strengthening training and capacity for the construction sector through the Construction Development Corporation Limited (CDLC) and the Wood Craft Center, efforts that can be consolidated and expanded.

19. These efforts to improve sector performance are supported in the draft Construction Industry Policy, which proposes a framework for improving the safety and consistent application of standards. The Construction Policy integrates parallel strategies aimed at addressing green building technologies, disaster and climate resilience and standards for accommodating differently-abled people. Further attention needs to be given to determine how to leverage private investment to support local specialization in quality building techniques and materials; in particular energy and water efficient approaches to housing design (such as passive heating and cooling designs, rainwater harvesting, solar panels and so forth).

Land Administration, Planning and Standards

20. Land administration and infrastructure planning encourage peri-urban expansion. Most land is owned by the central government. Yet while municipal governments are charged with implementing Local Area Plans, they have limited control over when or where land can be released for development. The lack of a strategic and sequenced release of land for housing development, that are coordinated and timed in parallel with basic infrastructure investments reduces the private sector incentives for development. This discourages the efficient use of urban land to promote compact, mixed use development that would curtail urban expansion and alleviate traffic congestion. For example, tools such as property taxes or vacant land taxes could be used to raise the opportunity cost of not developing land as is done in Korea, Colombia and the Philippines. Depending on their design, they can be used as a source of mobilizing revenues and encouraging infill investment to maximize the potential uses of vacant or underutilized land in built up areas.

21. The property tax administration system is improving but could be strengthened to promote more efficient use of urban land. The current system provides an indirect tax subsidy to owners of multiple residential (rather than individual) properties, which likely reinforces the concentration of property ownership rather than encourage the expansion of homeownership. Developers are also cannot collateralizing land to borrow for financing development. This increases the risks for formal developers, which discourages competition and growth in the sector and, due to the high costs of land in the CBD, likely drives developers to acquire land on the urban periphery, where it is less costly. Under the Bhutan Urban Development Project II, Thimphu and Phuntsholing have improved their capacity for property tax collection. However, as noted in the Municipal Governance and Finance Note, the tax base can be enhanced by developing an updateable GIS-based property registry, and exploring more sophisticated property valuation models that may be able to more accurately reflect land and property values.

22. Planning and building standards increase costs and uncertainty for housing developers. While permitting costs and timelines are more efficient than other countries in the region, new construction requires up to 21 approvals and takes an average of 177 days to obtain.³⁵ There are a number of planning, regulatory and zoning tools that can be used to reduce the costs of housing development, usually with the agreement that developers will set aside some portion for the public benefit (such as public spaces,

³³ ADB 2016. "An assessment of the financial sector development in Bhutan" No. 44.

³⁴ National Construction Industry Policy

³⁵ Doing Business 2018

affordable units and so forth) in exchange. Such tools include certain tax abatements or holidays, fee waivers, expedited processing, or permission for the project include additional market rate units to offset costs. These are common approaches in the United States, Canada and Western Europe.³⁶ A regulatory review could identify ways to incorporate local materials and techniques as well as provide flexible standards for incremental housing improvements in rural and informal settlements. In cities like Thimphu and Phuntsholing, there is a case for greater but targeted public role in easing supply side factors, especially in ensuring the availability of affordable and serviced land for housing development, planning standards and building regulations are appropriate (neither too high nor too low), permits and clearances are timely and cost effective, and various housing actors are assembled together to allow the market to work effectively.

Housing Market and Affordability

23. Urban housing is unaffordable for low income groups in larger cities. Available data on housing prices and rents suggests that affordability is a concern in cities.³⁷ In Thimphu for example, a three bedroom apartment for purchase can cost between Nu 3.5 and 4.5 million nu (US\$48,447- \$62,289) or about 14 times the median urban annual household income of Nu 150,000 (US\$2,076) in 2012.^{38,39} Mean rents in major cities can range from Nu 4,000-7,000 per month (US\$55-97), which fall on the edge of affordability for the median household.⁴⁰ However such prices pose significant household expenses for those at the bottom half of the income distribution.⁴¹ Figure 1 below presents a summary of housing affordability by income quintile using median expenditures. It shows that within the bottom three quintiles, urban rental housing likely poses a significant expenditure burden. Data using mean household expenditure data from 2017 find a similar trend; the lowest sixty percent of the urban population pay an average of less than Nu 3,898 (USD\$54) for rental expenditures, though the quality or size of rental units they pay for is not clear.⁴²

³⁶ Calavita, N. and Mallach, A. 2010. *Inclusionary Housing in International Perspective: Affordable Housing, Social Inclusion and Land Value Recapture* Cambridge, MA: Lincoln Institute of Land Policy

³⁷ Current data on housing costs and income are scarce across the country, yet necessary for a more detailed housing affordability assessment for low income groups. The affordability estimates here are based on median household income and reported mean monthly rental rates.

³⁸ Gelay 2017 and BLSS 2012

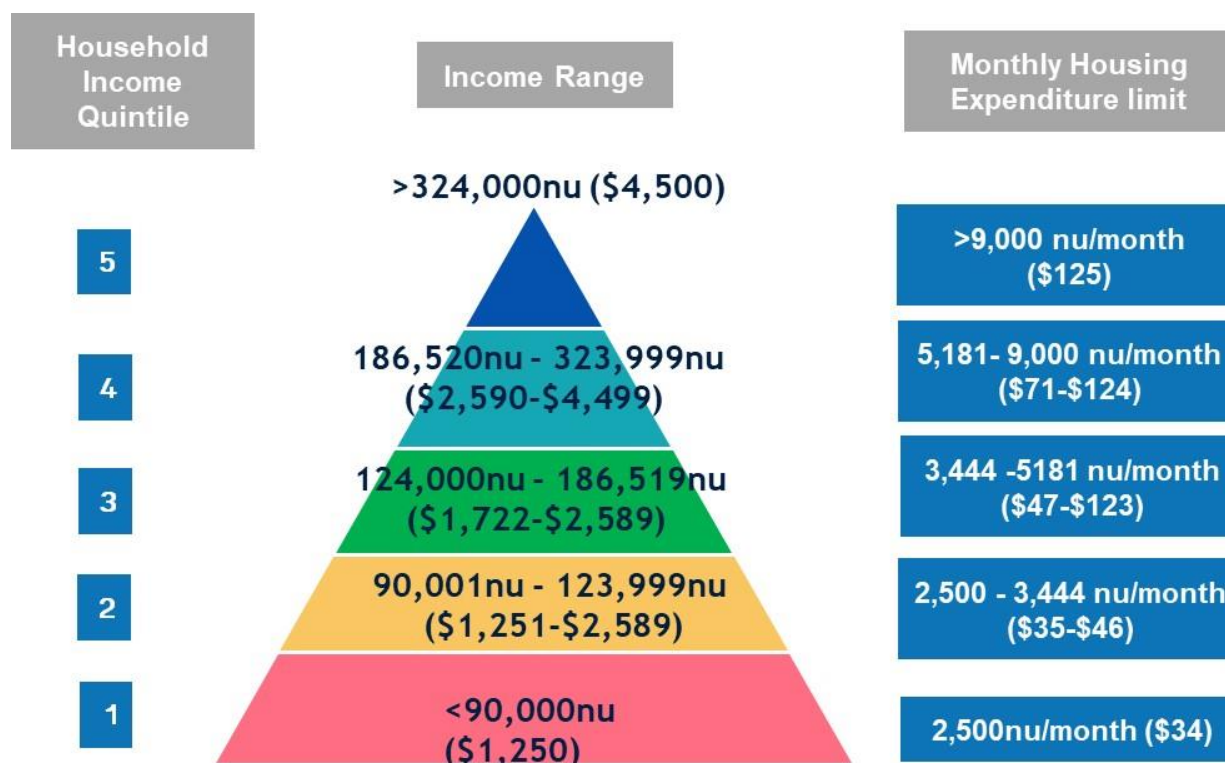
³⁹ US\$1 = 72 ngultrum

⁴⁰ Assuming no more than 30 percent of monthly income or Nu 4,100 is spent on housing

⁴¹ BLSS 2012

⁴² BLSS 2017

Figure 1. Affordability by Income Quintile, 2012⁴³



Source. BLSS 2012

24. The constraint of affordability is reflected in the frequency of rent increases. In 2012, 32 percent of urban households reported rent increases of at least once per year, with one quarter of those households having their rents raised twice per year. The Consumer Price Index shows that since 2012, rental costs have increased 39 percent, or the sixth highest of twenty-one non-food items.⁴⁴ This suggests urban rental markets have supply constraints that create persistent upward pressure on rents. Finally, about 25 percent of urban renters reported renting “part of a house,” suggesting constraints in the availability of the supply of affordable apartments units. However, this practice (called “co-living”) of renting a room or portion of a house, provided that tenants retain legal protections and conditions are acceptable, should be encouraged as it provides greater choice and flexibility to consumers. Rental vouchers, a portable subsidy for offsetting the costs of rentals are increasingly common in a growing number of countries (see Box 3).

⁴³ Expenditure limits are estimated by taking the monthly household income levels per quintile and budgeting 30 percent for housing costs.

⁴⁴ National Statistics Bureau. 2018. Consumer Price Index <http://www.nsb.gov.bt/publication/files/pub4qu8532gy.pdf>

Box 3. Rental Vouchers

In many countries, rental arrangements for housing are common, though low income residents can often find it difficult to find or afford rental options that are near work or services or are of decent size or quality.

As an alternative to public or social housing, a number of countries (such as the United States, Canada, France, Chile, the UK) have introduced subsidies in the form of rental vouchers. Vouchers cover a set share of the rental cost (usually at least 40 percent) which reduce the expenditure burden for low-income households on housing. As a result, tenants are afforded more rental housing options across the city and may be better able to find housing that suits their needs and location preferences. Landlords also benefit from the security and consistency of rental payments that vouchers implicitly guarantee and they may be less reluctant to evict or avoid renting to households with low or unstable incomes.

The vouchers have an income requirement and subsidy amounts calibrated according to income and median rental rates-based market conditions on each city. The subsidy covers the gap between the rental amount and an affordability threshold (usually around 30 percent of income expenditure). Income and rental market data are monitored, and the subsidy is regularly adjusted to cover the same share as rents may rise.

The United States' Section 8 Program is among the largest rental voucher programs, serving approximately 1.9 million low income rental households. A study of the program found that the voucher program had substantial efficiency benefits (relative to costs of administration and taxation to finance the program), a ratio ranging from 1.1-1.4. Not only was household welfare improved from the voucher such as an improvement in earnings, but there were also demonstrable spillover benefits such as increased school attendance, health care uptake and reductions in crime and substance abuse costs.

Source. Carlson, D., R. Haveman, T. Kaplan, and B. Wolfe. 2010. "The Benefits and Costs of the Section 8 Housing Subsidy Program: A Framework and First-Year Estimates." Discussion Paper 1380-10. Institute for Research on Poverty, University of Wisconsin, Madison.

IV. Conclusions and Way Forward

25. The housing is a critical contributor to national economic growth and an important means to reduce poverty. Investments and labor in housing, construction and complementary services provide substantial economic benefits at the national level. At the same time, the quality and location of housing has direct consequences for health, education and employment outcomes. Housing that lacks infrastructure or services, is of poor quality or is too expensive for middle and low-income groups presents long term negative consequences for human development and income generation (see Box 2). The government has an important role in enabling and strengthening housing markets to provide a wide array of housing options for different populations. Global experience also suggests that housing consumption follows an "S"-shaped curve, where housing consumption is the highest in countries with per-capita GDP levels of US\$3,000 and US\$36,000, a space that Bhutan's economy will soon enter and signal an increase in demand.⁴⁵

26. The 2019 National Housing Policy identifies important and relevant challenges to the housing sector, however there will be several challenges to its successful implementation. For example, the policy aims to increase homeownership, something that is not common among urban households. However,

⁴⁵ Dasgupta, B. Lall, S.V. and Lozano-Gracia, N. 2014. "Urbanization and Housing Investment" Draft Report, World Bank

as previously discussed, increasing homeownership will require several interventions to the entire housing delivery system, in particular the function of private developers and the financial sector in identifying and responding to market demands. On the finance side for example, the current mortgage market is constrained by lending and collateral restrictions imposed on banks. Banks also lack short-term deposits and savings that can be leveraged to create long tenor mortgage loans or large ticket developer loans. Lenders will also need improvements to the efficiency of borrow creditworthiness assessment systems, loan underwriting and payment servicing procedures as well as the potential for different types of insurance systems for both homes and mortgages. Each of these mechanisms would serve to reduce the risks faced by banks in lending to middle and lower income borrowers.

27. The policy could be strengthened with a more detailed and substantive affordability assessment. The assessment would help policy makers understand the scale of the affordability gap in urban housing markets, the number people burdened by expenditures on housing and provide guidance on how to align existing subsidy programs to target those with the greatest needs. The policy's goal of ensuring households pay no more than 30 percent of incomes may be difficult for regulators to meaningfully enforce in privately-built housing. Similarly, the proposal to allocate public lands for housing production should be carefully reviewed. In many countries, the allocation of public land or similar incentives are used to reduce development and construction costs for new housing but these lands are often located far from jobs, amenities and services. This may reduce costs for builders in the short term, but over the longer term residents would face additional time and cost burdens for commuting, which would in turn reduce the desirability and market value of these units.

Box 2. Why Housing Matters

Housing is an important source of household wealth and intergenerational mobility. Houses are often the most expensive purchase that a household will ever make. A house is an investment that often appreciates in value over time, can be used as collateral for borrowing and through inheritance practices, can be an important component of intergenerational wealth transfer. Evidence also shows that housing quality has an important impact on household health outcomes (in particular respiratory and digestive health) and children's school attendance among others, which has long term positive implications for public health conditions and for local labor markets.¹

Access to quality housing forms is critical component of urban livability. Given the benefits that housing provides consumers, it is not surprising that cities with quality housing attract employers and private investment. These factors can also aggravate income inequality within cities as the costs of living (such as housing and transportation) are much higher than in rural areas. Migrants with limited skills or little savings may find few options for quality housing in proximity to jobs and services. In this way, the location of housing in cities also has an important bearing on accessibility to jobs and services as well as the potential to either continue or disrupt spatial disparities in access and social inclusion.² Housing can also influence the form and shape of the built up urban environment, which in turn effects the ability of local governments to provide adequate infrastructure and services.

Global experience demonstrates that housing is an important driver of the national economies. The housing sector draws material and service inputs from a range of industries and specializations. Such contributions include, for example, the production of various types of building materials and furnishings, construction tools and labor, housing finance, real estate, property management and legal services, and so forth.³ In India, the GDP contribution of the housing sector in 2009 was approximately 19.6 percent, 8 percent of which was from the construction industry alone, the balance from associated finance, management and services. Similarly, housing in the United States contributes around 15-18 percent of total GDP, with a similar breakdown activity contribution.⁴

¹ Thomson, H., Thomas, S. Sellstrom, E. and Petticrew, M. 2013. "Housing improvements for health and associated socio economic outcomes" *Cochrane Database Systematic Reviews* No. 2.

² World Bank 2013. *Planning, Connecting and Financing Cities – Now: Priorities for City Leaders* Washington DC: The World Bank.

³ For example, a value chain analysis conducted under the Indian government's Economic Survey of 2002-2003 found that 269 industries provided direct or indirect contributions to the housing sector.

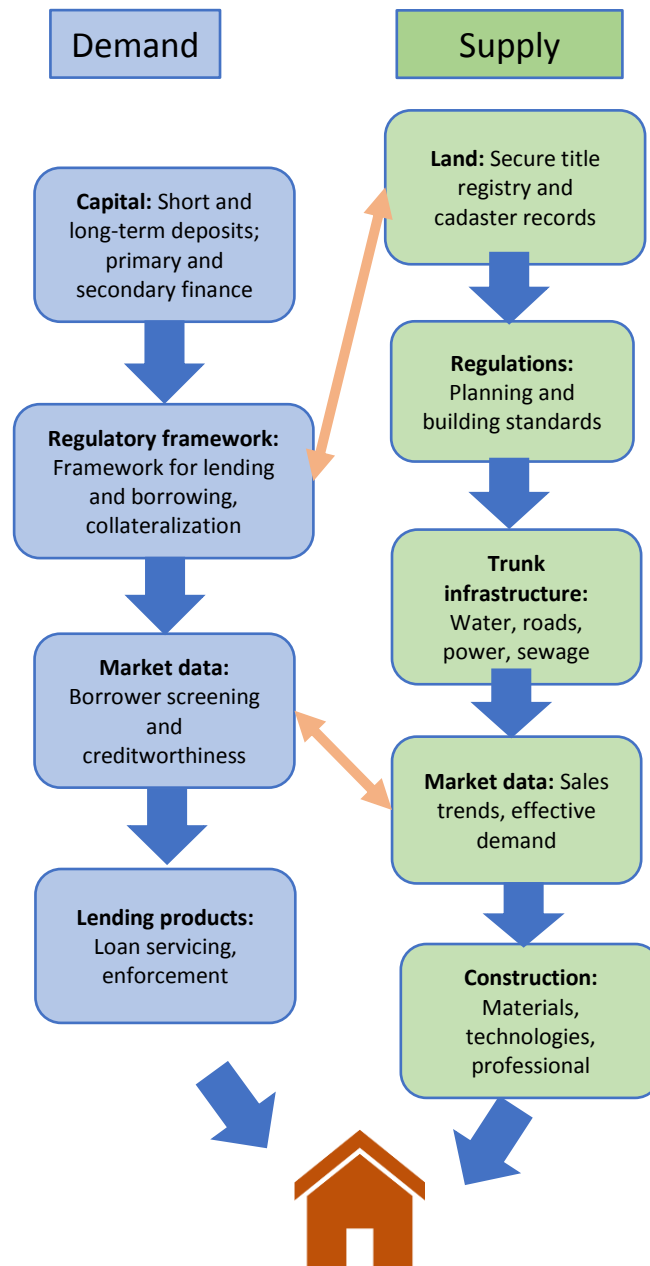
⁴ <https://www.nahb.org/en/research/housing-economics/housings-economic-impact/housings-contribution-to-gross-domestic-product-gdp.aspx>

28. In order to address implementation challenges of the policy, a more detailed assessment of the housing sector is necessary. Data on housing markets, prices and trends in Bhutan is limited, but a detailed study on public and private actors, market trends, legal and institutional capacities, affordability, urban planning and housing finance is crucial for prioritizing policy responses. These include data on housing on the overall stock quantity, tracking of housing market activity and a more detailed housing affordability assessment to better understand the dimensions of affordability and the dynamics of the housing market. The assessment would aim to provide reform guidance on relevant high-level policy documents including the revised National Housing Policy, Construction and Building Policy and Human Settlements Strategy. One potential path forward would be the preparation of a Housing Strategy or Master Plan that clearly articulates a vision, goals, implementation, monitoring and coordination arrangements for different stakeholders based on discussion and reflection on these knowledge and learning inputs.

29. The government has an important role in enabling markets to function for housing provision. Across both the supply and demand sides of the value chains, the government (at different levels) plays an important role in facilitating markets for labor, land and materials for housing assembly, ensuring standards and quality of housing and overseeing the housing finance sector. Figure 2 below provides a summary of this approach to understanding the function of the housing sector. Annex 1 extends this discussion further.

- On the supply side, this includes the establishment and maintenance of a land cadaster and registry system which can be used to document tenure, allow collateralization, and ease of transfer. It also includes the application and enforcement of appropriate building, zoning and development standards for the location of quality housing units. The government also has a central role in providing basic infrastructure and utilities, which improve both the livability conditions as well as the market value of housing units. Finally, governments have a role in overseeing training and quality control standards for construction labor, materials and methods, in addition to adequate customs and tax policies for imported construction materials and technology.
- On the demand side, governments should adopt policies and implement regulations that encourage savings deposits which enable financial institutions to reduce risk and access capital markets, offer a greater number of consumer and developer finance instruments and support the development and sharing of information and data base systems tracking creditworthiness, property market activity and so forth.

Figure 2. The Value Chain for Formal Housing Delivery



Source: World Bank Staff

Based on this initial review and the approach outlined in Figure 2, there are several areas worthy of more attention for policy makers:

30. Establish data systems and indicators for developing housing policy and enabling markets. These include improving access to data on land and property ownership particularly in urban areas with active markets, to improve transparency of property rights, relieve legal disputes and enable the assessment of property taxes or fees on owners. In the short term, a housing and property data observatory that tracks local level data on the types, volumes and amounts of sales and rents (in addition to income or expenditure proxies) would be an important resource both for developers and lenders, but also for policymakers that want to assess and calibrate potential subsidy tools to reach groups that are priced out of the market (Box

4).Credit reporting and assessment systems that have been linked to residents’ national identification numbers can be enhanced to establish and track creditworthiness to borrowers for home loans and mortgages (including those working informally but who may be creditworthy), but also allow housing subsidy programs to better target desired income groups. Shared indicators and metrics as in addition to collection and reporting should be coordinated between local and national authorities.

Box 4. Housing Observatory: Mexico’s RUV

Mexico’s Central Housing Registry (Registro Único de Vivienda, RUV) was created in 2004 as an independent housing database established through a collaboration between the National Housing Council (CONAVI, the main housing subsidy entity) and private sector IT entities with the purpose of regularizing data on the location, size and sales price of homes. It produces geo-referenced maps, documents land reserves, tracks housing supply data and publishes monthly housing reports. Since 2006, there have been 4.6 million housing units added to the RUV.

It has provided several clear benefits to different stakeholders in the housing sector:

1. *For lenders and developers:* The database allows developers, lenders and real estate firms to more accurately track and gauge housing markets across the country, providing better information for investment and sales decisions.
2. *For homeowners/buyers:* The database enables the public to access accurate data on housing prices and trends in their cities so that they have better information on market trends and fair prices for the types of housing units they are looking for (new or used).
3. *For the government:* Mexico has multibillion dollar mortgage subsidy programs that encourage developers to build housing for low income populations by subsidizing down payment costs. The RUV improves transparency and improves targeting. In order to use the subsidy, the house must be registered to the RUV, meeting the required regulations and standards. Homebuilders then have an incentive to either retrofit existing housing or build new housing and add it to the RUV database in order to make the unit eligible for purchase under the subsidy program.

Source: Staff. 2017. “Pactan intercambiar datos de vivienda” *La Reforma* 27, July ; World Bank Staff

31. Review building code and design and construction standards. A review of the construction standards and materials sector should be undertaken to enable a wider range of acceptable construction materials and techniques that meet basic safety standards in greater options for builders and to reduce costs to consumers. Training and certification programs for builders and workers in the sector are also needed to encourage convergence in professional standards and quality across the industry. Building codes should also ensure principles of urban resiliency to respond to natural hazard and climate change risks in addition to principles of energy and water efficiency. This should also align with the forthcoming draft Construction Industry Policy, in particular the adoption and regular use of global standards in materials testing and inspection practices.

32. *Assess land administration tools and explore the potential for urban land value capture.*⁴⁶ Land administration tools can also be used to stimulate supply, particularly in growing urban areas with high demand for housing. This can be done by the National Land Commission assessing the potential for more flexible land use regulations and zoning for Thromdes that can accommodate compact, mixed income and mixed-use development. For example, taxes or fees imposed on vacant or underutilized urban land can be used to encourage sale or development of properties for housing and other purposes, especially if it is aligned with zoning and land use regulations that are favorable to housing market conditions. It is not clear if Thromde fiscal systems have had direct impacts on housing supply in this way. However, Thimphu's successful experience with land pooling could be a model for other growing cities to effectively manage housing and development. Property tax systems should also be non-distortionary to encourage a more efficient market circulation and development of land for priority needs, rather than provide incentives for the consolidation of land and property under only a few owners.

33. *Enable a greater diversity of housing finance options for developers and low-income groups.* On the finance side, assessing the viability of land collateralization could lead to reforms that allow developers to leverage the value of land they wish to build on to secure construction finance. Additionally, an enabling policy framework for alternative types of lending for commercial banks, such as housing microfinance, would allow banks to experiment with these instruments for middle and lower middle-income borrowers for incremental upgrades and improvements.

34. In urban settlements such as Thimphu, Phuntsholing, Gelephu and Samdrup Jongkhar, where urban expansion and housing affordability are key concerns, priorities for policymakers should be:

- ***Review land administration standards to unlock urban land for housing:*** Land use planning should enable greater density and diversity of land uses that would allow for the close proximity to jobs and housing. Options would include duplicating land pooling approaches in newly growing urban districts. MoWHS and Thromdes could build on this by exploring the use of density bonus or set-asides as part of zoning and building review approvals in new construction, whereby developers would be able to build more units than otherwise allowed in exchange for agreeing to provide some units at a below market rate.
- ***Integrate principles of urban resilience in planning and building standards:*** Local governments can also adopt principles of resilience in planning and development. This would include a proper assessment of potential areas of urban expansion to minimize exposure to the risks of flooding, landslides, forest fires and earthquakes. Revised planning and design standards could improve the siting, built form and materials used in order to make structures safer and more resource efficient in operation.
- ***Incentivize the development of a robust rental market:*** Further attention could be given to strengthening the urban rental sector to ensure consistent quality of rental units and to be able to monitor changes in rents. A rental or revised tenancy policy could articulate the rights, obligations and dispute resolution procedures for landlords and tenants. Supply side incentives, such as small grants, tax discounts or similar could be considered to encourage landlords to improve or expand rental housing stock or enable other opportunities for co-living. Examples of these approaches are

⁴⁶ Land value capture refers to an approach that allows communities to recover and reinvest the additional land value due to public investment and government involvement in private development. Such tools include inclusionary zoning and housing set asides, betterment contributions, impact fees, business improvement districts and transferable development rights. Land pooling/readjustment is also a form of land value capture. See for example Smolka, M. 2013 *Implementing Value Capture in Latin America: Policies and Tools for Urban Development* Cambridge, MA: Lincoln Land Institute

found in the United States and South Africa, where homeowners are encouraged to build and let backyard rental units. The policy should be sure to include adequate and reasonable protections to the rights and obligations of both landlords and tenants.

35. *Improve the quality of informal and rural housing through supporting a broader and more flexible set of construction guidelines and alternative finance instruments.* In rural areas, where housing is largely self-constructed, attention should focus on developing a general set of guidelines and safety standards that allow for a wide range of construction materials and techniques. These guidelines and practices should provide a basic level of safety, but flexible enough to encompass different building materials, techniques and design styles such as traditional or vernacular construction as well as newer resource and energy efficient materials and construction. This should be coupled with support for non-collateralized, smaller loans for home improvements and construction, such as housing microfinance.

Annex 1. A Value Chain Approach to Housing

Housing is delivered through a series of value chains that provide supply and demand-site services and inputs. Each of these value chains depend on markets to coordinate labor, resources, information and finance to site, construct and off-load housing. In this way, housing should be considered the end product of a series of overlapping market and information exchanges involving a range of stakeholders, including the private and non-profit sectors that may be involved in finance and construction of housing, and the public sector, which has a role to play in shaping, regulating and incentivizing the activities within the housing sector value chains.

Differences in the depth, function and coordination of these value chains direct impacts the quality and affordability of housing. For example, weak land tenure rights or limited supply of desirable land for construction can drive up the costs of housing development. It may also encourage squatting or peripheral development where land is more easily acquired by the urban poor. Building standards that add unnecessary cost burdens can either reduce incentives to build or encourage construction of unsafe or substandard units. A lack of skilled, large scale construction firms, or a reliance on imported, rather than locally-sourced building materials, also adds to costs for consumers. A scarcity of commercial and non-profit lenders limits the sources of finance available for construction or purchase of housing; often households may rely on accumulated savings, borrowing or gifts from friends and family to buy or improve a unit incrementally. While this practice is common throughout the world, it can be an inefficient means to create a housing stock that meets the demands of rapidly growing cities and diverse populations with a variety of housing needs.

In the global experience, the composition and function of value chains should be considered in terms of a spectrum. On one end housing tends to be informally produced - often incrementally over time - of varying levels of quality, levels of tenure security and uneven infrastructure access. For example, housing informality can be described as how people adapt to weaknesses in certain segments of the value chains. Where land for development is scarce, expensive or has unclear property rights, poor residents may squat and build their housing incrementally with savings. Conversely, 'formal' housing delivery value chains assume tight coordination between various inputs, including clear, documented and transferable land rights, appropriate and enforced regulations and standards, a skilled and financed construction and development sector and so forth. Figure 2 shows the stylized value chain linkages for the demand and supply sides for the delivery of formal housing. It also demonstrates areas of overlap, where processes or 'steps' of both the supply and demand sides require mutual coordination, such as the link between the regulatory framework for housing and urban development and the system of land administration that can unlock land and secure tenure for housing.