

Affordable housing in Phnom Penh - Ensuring decent housing opportunities for all

Planète Enfants et Développement
People in Need
Global Green Growth Institute

October 2020

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Phnom Penh – 2019. Looking towards the south-west of the city from the Royal Palace, many condo buildings are in construction.



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Acknowledgements

The authors would like to thank the consortium for the trust in developing this first-of-a-kind report on Phnom Penh's affordable housing ecosystem. Thanks are extended to all the stakeholders involved for their time and insights on the topic.

About the consortium

The Global Green Growth Institute (GGGI) is a treaty-based international, inter-governmental organization dedicated to supporting and promoting strong, inclusive and sustainable economic growth in developing countries and emerging economies. Headquartered in Seoul, Republic of Korea, GGGI has 28 members with operations in 27 countries. Its rigorous technical assistance to governments through embedded country teams helps mobilize finance into climate resilient projects. Together with the commitment of our members, GGGI is leading the implementation of a new development paradigm, focused on a model of economic growth that is both environmentally sustainable and socially inclusive.

GGGI's engagement in Cambodia began in 2011 to assist the Royal Government of Cambodia (RGC) with the establishment of its national policy framework and institutional arrangements for inclusive green growth. GGGI's objective in Cambodia is to support RGC to achieve its ambitious climate, green growth and sustainable development agenda, through increasing competitiveness of Cambodian cities and industrial sector.

Planète Enfants & Développement (PE&D) is an international NGO, based in Cambodia since 1984, is devoted to supporting vulnerable children to have the necessary conditions for their well-being and development. PE&D has a vision of a society in which children and young people have access to essential social, health, educational and cultural services which allow them to develop harmoniously and to flourish within their family and community without discrimination. PE&D has been working with urban poor communities in Phnom Penh since 2004 and is currently leading a project aiming to improve housing conditions for vulnerable families.

People In Need (PIN) is a non-governmental, non-profit organization established in 1992 in the Czech Republic. Throughout the 25 years of its existence, PIN has become one of the biggest non-profit organizations in Eastern and Central Europe. The focus of PIN Cambodia centers on Climate Change Adaptation, Urban Inclusion and supporting Economic Growth of Marginalized populations. Moreover, PIN is part of the Alliance2015, a strategic network of seven European non-governmental organizations engaged in humanitarian aid and development projects. Alliance2015 enables sustainable collaboration and effectiveness at national, regional and global levels.



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Executive Summary

Affordable housing is a concern for cities worldwide. As a general rule, housing is considered affordable when it doesn't exceed more than 30% of households' expenditure, or represents three times the households' annual income, and is adequate in size and quality. If households in Phnom Penh were reported to spend on average 31% of their income on housing (2017), our analysis suggest the data masks vast inequality among income groups within this bracket, notwithstanding the poorest 20% of the population.

Phnom Penh's recent history and housing policy over the past 20 years, illustrates the gradual financialization of the housing market, occurring via international investments, orienting the production of housing to catering to foreign and elite groups rather than to local markets, in particular low to middle income groups. Today, only the richest 20% of the population in Phnom Penh can afford to purchase a house a borey or a condo unit developed by consortiums of local and international development companies. A typical 50 m² "affordable" condo is priced around \$80,000 USD. This equates to nearly 12 times the annual income of a household with three people earning minimum wage (195 USD / month). Despite more and more developers producing housing units for less, the entry market price identified in this report sits around \$37,000 USD for a link house in a borey on the outskirts of the city. This represents more than 5 times the annual income of a household composed of three people working minimum wage. As we outline in the report, currently, no offer exists below \$30,000 USD, leaving at least 60% of the population unable to purchase housing in an affordable manner, despite policy efforts initiated by the Royal Government of Phnom through the adoption of the 2014 National Housing Policy and the 2017 Incentives for affordable housing projects policy.

Observing the housing continuum in Phnom Penh, through both historical, legal and economical perspectives, three "sub-ecosystems" appear, of which two are more established:

1. One ecosystem corresponds to the more established, relatively secure condo and borey housing market, backed by international investors, developers and buyers belonging to the 20% richest income group, with housing units starting to sell around 50,000 USD;
2. A second ecosystem corresponds to a slowly emerging affordable homeownership ecosystem, which is still unstructured and still forming thanks to efforts from Government and from big developers concerned with "giving back to the community" as well as smaller, less professional, developers. This ecosystem, with units ranging from 30,000 to 60,000 USD is could cater to around half of the city's population but remains fragile in terms of number of units produced and in some cases in terms of quality of housing and neighborhood planning.
3. Finally, a "very affordable" housing ecosystem still needs to emerge for the 25% of the population belonging to the lowest income groups. Based on households purchasing capacity, solutions for this group will have to average 10,000 USD per unit and lower, implying a strong need for public support. Affordable rental should be developed to cater to those unable at the moment to access homeownership.

By 2035, nearly 318,000 households will require housing, out of which at least 240,000 units should be priced below \$33,000 in order to remain affordable. In addition to the needs of new housing units, linked to continued rural immigration as well as gradual household de-cohabitation, households evolving from an extended family model to gradually a nuclear family model, there is also need today for renovation, upgrading or replacement of an estimated 25% or approximately 81,000 units of the current housing stock, which is considered degraded, inadequate or unsanitary. The very large majority fall under the second and third ecosystems and should be priced below \$30,000. Engaging affordable housing stakeholders, from the sectors of development, government,



financial institutions and organizations supporting the most vulnerable, should allow to both define strategies to cater to these needs and find ways to develop new housing solutions to fulfill them.

Different finance options should be explored to ameliorate the current affordable housing market. As the report highlights, the government should enable finance options such as blended finance, green finance and sustainable finance facilities, through a mixture of public and private debt and mobilizing development finance to attract additional commercial finance. In turn, this could unlock new and innovative options for developers to access funds, allowing to build for less, and could support the development of de-risking mechanisms to reduce the costs of borrowing. Green finance mechanisms can support to finance incremental costs linked to building more sustainable affordable housing, hence contributing to reduce medium to long term maintenance costs and increase the long-term affordability of houses.

Sixteen interventions, ranging from short to long term, are articulated in four areas of work: supporting the creating of an affordable market in phase with households' purchasing capacity, increasing housing sustainability, developing more inclusive housing finance products and actively support community-driven housing solutions. These interventions are thought as conversation-starters to engage all stakeholders and pilot projects to support the kick starting and scaling up, depending on the area of work, of urgently needed tools for improving affordability and accessibility of decent housing for all in Phnom Penh today.



Acronyms

ACHR Asian Coalition for Housing Rights

ADB Asian Development Bank

AFD Agency Française de Développement – French Development Agency

AKAM Aga Khan Agency for Microfinance

AIMF Association Internationale des Maires Francophones – French-speaking mayors’ international association

Annual percentage rate (APR)

CBO Community Based Organizations

CDB Commune Data Base

CDF Community Development Fund

CEO Chief Executive Officer

CSES Cambodia Socio-Economic survey

EDC Electricité du Cambodge - National Electric Company of Cambodia

EU European Union

FDI Foreign Direct Investment

GDP Gross Domestic Product

GHG Green House Gases

GIZ Deutsche Gesellschaft für Internationale Zusammenarbeit, GmbH. – German Cooperation Agency

IADB Inter-American Development Bank

I-NGO International non-governmental organization

IO International organization

IFC International Financial Cooperation

GGGI Global Green Growth Institute

KfW Kreditanstalt für Wiederaufbau - the German Development Bank

LEED Leadership in Energy and Environmental Design

L-NGO Local non-governmental organization

MDI Microfinance Deposit-taking Institution

MEF Ministry of Economy and Finance

MFI Microfinance Institution

MLMCC Ministry of Land Management, Urban Planning and Construction



NAMA Nationally Appropriate Mitigation Actions
NBC National Bank of Cambodia
NGO non-governmental organization
NIS National Institute of Statistics
OHCHR Office of the High Commissioner for Human Rights
PED Planete Enfants et Développement
PIN People in Need
PPCA Phnom Penh Capital Administration (choose btw PPCA and PPCH)
PPCH Phnom Penh City Hall
PPP Public private partnership
Return on equity (ROE
RGC Royal Government of Cambodia
ROI Return on Investment
SDG Sustainable Development Goals
SECC Security Exchange Commission of Cambodia
SME Small and Medium Enterprises
UK United Kingdom
UNDP United Nations Development Program
UNTAC United Nations Transitional Authority in Cambodia
UPS Urban Poor Settlement
UPDF Urban Poor Development Fund
USAID United States Agency for International Development



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1 INTRODUCTION

This report explores the complexity of affordable housing in Phnom Penh, Cambodia, by unpacking the current affordable housing ecosystem, the market failings, policy gaps and potential solutions for improvement, making affordable housing more inclusive and sustainable from economic, social and environmental perspectives. By offering insights into the opportunities and challenges in addressing both policy and practice in the affordable housing market in Phnom Penh, Cambodia, it points to ways to improve both supply and demand in a sustainable and more considered approach.

By mapping out the affordable housing ecosystem, we aimed at identifying which partnerships and co-investment opportunities could bring together government, non-governmental organizations, non-for-profits, and private sector through market-based and non-market approaches for low income households, that addresses social, environmental and economic sustainability. As part of mapping the affordable housing ecosystem, the research looks at the following key areas:

1. Key actors, including the role of government, NGO's and the private sector, in delivering a range of affordable housing models in Cambodia.
2. The affordable housing continuum - describing all typologies of housing with view to identify new affordable housing typologies that housing actors do not currently offer.
3. Planning systems which influence land supply and the broader goal of mixed use and sustainable neighborhoods and communities.
4. Financial inclusion whereby low-income people can access affordable and appropriate financial products and financial services and have the capabilities to understand the implications of accessing finance for the purposes of purchasing affordable housing.
5. Innovative financial models which could be developed to generate adequate scale, returns and liquidity, including barriers and opportunities within a Cambodian context.
6. Environmental sustainability (led by GGGI), highlighting how green building features can support/emphasize affordability in housing and realize long-term savings.

1.1 Methodology

1.1.1 Objectives

The methodology supports a number of aims identified by the consortium:

1. Analyze of the current state of the affordable housing ecosystem in Phnom Penh, highlighting bottlenecks and possible options to improve supply through improved planning and inclusive finance in the city and surrounding area.
2. Outline key priority areas to develop and improve: i) affordable housing supply ii) inclusive finance iii) partnership and co-investment opportunities in the affordable housing ecosystem to guide Planète Enfants et Développement, People in Need and Global Green Growth Institute (the consortium) for the next three-to-five years.

1.1.2 Sources of methodology design

The design of the research was based on academic and development actors' (NGO's, World Bank, ADB) literature on housing, urban planning, urban poverty, deprivation and vulnerability in Cambodia and Phnom Penh, as well as academic literature on the finance and banking system in Cambodia. Data on household income and expenditure, housing and the banking system were all produced by the Government, available on the National Institute of Statistics and National Bank of Cambodia websites.



1.1.3 Data collection methods

Data collection methodology included:

- a) A literature review of secondary data including academic journals and grey literature (reports, books, conference papers, websites, and other material on the internet) to characterize in detail the affordable housing ecosystem in Cambodia.
- b) Key informant interviews with national ministries and city constituencies, private developers, commercial banks, MFI and other relevant actors to canvas and aggregate different perspectives on the most significant issues and concerns in supply as well as demand with regard to access to affordable housing – see annex 1 for sample questions.
- c) A rapid market survey of the cheapest identified housing units, based on real estate online ads (specialized real estate websites and social media) and conducted over the phone – see annex 3 for the data inquired about and collected.

We used qualitative rather than quantitative methods given the time and resource constraints for this research. This allowed for more in-depth understanding of the complexities of housing policy and practice in Cambodia, as well to discuss relevant challenges and opportunities for NGO’s working in Phnom Penh. We do not suggest, however, that qualitative data can supplement quantitative data.

The schedule and selection of housing actors was done in consultation and through network with the consortium and The Urban Platform Studio. We conducted online and in-person interviews with 16 stakeholders in total from August to September 2020. Please consult annex 2 for the list of organizations interviewed.

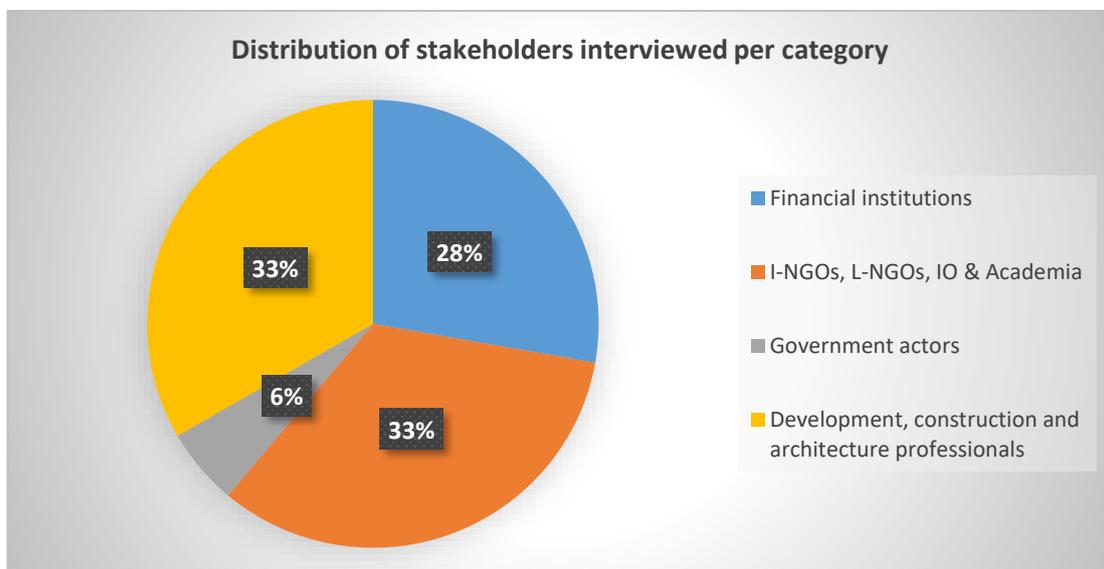


Figure 1- Distribution of stakeholders interviewed for the research by category

1.1.4 Literature review method

To develop an initial bibliography of sources, we conducted a high-level scan of organizational websites, existing reference lists, scholarly databases and knowledge repositories, using keywords on urbanization and urban poverty/development. For example, UNHABITAT knowledge repository, ADB Institute, Open Development Cambodia, Research Gate, Elsevier, and more.

1.2 Limitations

Several limitations were identified during the research. First, data on housing varies considerably, with information on housing being limited or unavailable in Cambodia. The two main sets of data are the 2013 Commune Data Base (CDB) and the 2017 Cambodia Socio-Economic survey (CSES), both issued by the National Institute of Statistics of Cambodia. Because of the lack of more recent data, these numbers were used to scan the current 2020 market. Additionally, these data sets must be handled with caution. If the CSES data is collected by National Institute of Statistics enumerators, usually supported by International cooperation actors, the CDB data is collected by all levels of local authorities, mainly from the village and the commune chiefs, who can at times have varying personal interpretations of indicators. This might cause some inaccuracies in the more detailed part of the analysis. In addition, access to data on the state of the housing market is very challenging, as there is no publicly available databases on new buildings and sales. For example, the number and types of construction permits delivered are not accessible. In addition, some construction sites – usually the smaller ones – do not bother with requesting permits before starting construction. No official categorization of housing unit types seems to exist, or is available to the general public. Ideally, this type of research and future research on housing should additionally be supplemented by primary disaggregated data to improve understanding of the state of the housing stock and housing affordability.

Secondly, some of the key stakeholders remained unavailable for interview. Only five out of eight identified financial actors (banks and MFIs) agreed to meet the research team. Phnom Penh City Hall and the Housing Unit within the Ministry of Land Management and Construction did not follow up on requests for interview.

Finally, the impacts of COVID-19 caused restrictions in the way we conducted interviews. Several interviews were conducted exclusively via video conference or face-to-face (socially distanced) with video conference. The quality of the connection varied considerably, and this may have been further reason some organizations declined our request for interview.



2 HISTORICAL AND LEGAL CONTEXTS OF THE HOUSING LANDSCAPE IN PHNOM PENH

2.1 A historical perspective on housing in Phnom Penh

The urban history of Phnom Penh has had great impact on the dynamics of the housing sector. This section is meant to provide readers with the basic historical background to the city's recent urban develop in order to fully understand the unique context of the housing market.

2.1.1 Phnom Penh: from tranquil village to bustling capital (1871 – 1974).

Until 1871, start of the French Protectorate over Cambodia, Phnom Penh was a quiet fishing village. Its strategic location at the crossings of the four rivers – the Upper and Lower Mekong, the Tonle Sap and Tonle Bassac – gave an argument for the French occupying forces to relocate the Kingdom's capital from Andoung, about 30 km north-west, to the marshy river side. Major development works were undertaken to transform Phnom Penh into the country's first market place and political stronghold: dikes were erected and filled to create more space for the city, a canal system developed to master the seasonal water flows, many public buildings built in the architectural style in vogue at the time of French rule of Indochina, and many housing units were also built to accommodate the rising number of administrators and traders living in the city, pushing back the traditional Cambodian thatched roof houses to the outskirts of the city. This first drastic transformation was largely organized by the planning efforts led from afar by Ernest Hébrard, based in Hanoi as head of the Indochina Architecture and Urban Planning service from 1921 to 1931. The same administration encouraged the development of the so-called "Chinese compartments"¹, also referred to in Cambodian as Pteah Loveng, as the most cost-efficient housing model at the time.

From then until the late 1960's, Phnom Penh underwent a second transformation wave. After the country regained independence in 1954, the different colonial architectural styles were abandoned to the favor of the New Khmer Architecture style and many major public infrastructure works were undertaken: the Olympic stadium, the Chaktomuk theater or the White building are just a couple of iconic buildings representing the new architectural style. This Architectural Renaissance also materialized new ways of living: collective housing was developed for the first time on a mass scale and allowed to create entire new districts in a short time in the capital.

As the war in Vietnam intensified and American bombings over Cambodia multiplied, refugees from the countryside started pouring into the capital, creating an additional city within/around the city estimated at 1 million people. Eventually, on April 17, 1975, the Khmer Rouge took control of the capital. Within the following next three days, the 2 million residents of the city were evacuated to the countryside, officially to protect the population from pending American bombing, in reality starting the urban "bourgeois" population's necessary reeducation towards the creation of the Khmer Rouges' ideology of the "New Society", inaugurating the mass murder of their peers for the next 4 years.

¹ Defined as Chinese compartment because their development was initiated by Chinese communities who settled in Phnom Penh: typically, the ground floor is reserved for business purposes and the floors above are meant for residential uses.



2.1.2 Post – war to the liberation – 1979 to 1991

In 1979, the Vietnamese Army invaded Cambodia, pushing the Khmer Rouge back to small pockets in rural areas of the country. The brutality of the regime is estimated to have claimed one quarter of the total Cambodian population, an estimated 2 million people. The first target were the intellectuals and the administrators of the previous regimes. Many more died from lack of food and access to medicine.

Phnom Penh had been left empty, unattended and unmaintained for nearly five years. All the archives, including the city cadaster, had been destroyed. Along with the destruction of archives and building and systematic assassinations of the urban population were the destruction of the skills and know-how to build and manage a city – from urban planning and management to engineering skills, etc. durably impacting the country's capacity to actively manage and guide the intense urban development in the decades to come. It has been estimated that only 30% of Phnom Penh's population survived the Khmer Rouge regime, leading to some scholars qualifying Phnom Penh's brutal emptying and the systematic targeting of the urban population as an "urbicide"².

In 1980, only a year after the liberation of the capital, nearly 190,000 people had already moved back to the capital, and ten years later, the population had multiplied by 3.5, totaling 634,000. In a country still under international embargo³, life conditions remained harsh: the military controlled food rationing and activities, private property was banned, population was counted and the work force organized. Support came from the USSR and eastern bloc countries. Water and power facilities were gradually restarted, trees in the city were cut down to use as cooking wood. Housing and land were handed out on a "first-come first serve" basis: the city gradually repopulated by people taking possession of and dividing up empty houses, hotels and even churches to create more housing units, and eventually building new housing wherever room was left in the city. The existing housing stock eventually started to be overpopulated. Once no more place was left, an informal market started to develop gradually. The reappropriation of the city in this decade, ill-organized and under-funded, concurred to degrade the city even further than during its phantom years under the Khmer Rouge.

2.1.3 Gradual reopening of the country and liberalization of the market (1985-2000)

By the mid-80's, markets of goods were gradually reopening, marking the return of officially existing free trade for the first time in ten years. In 1989, the right to own land was reintroduced and the Vietnamese army departed. Both free trade and right to land ownership were enshrined in the 1993 Constitution, drafted with the support of the United Nations Transitional Authority in Cambodia (UNTAC), deployed in the country following the 1991 Peace Agreements.

Based in Phnom Penh, the UNTAC's deployment had a lasting impact on remodeling the urban fabric of the center of Phnom Penh. Quickly, office space and residential housing to accommodate the permanent and visiting international staff, as well as a growing international NGO population, was needed "in ways that far exceeded the capacity of the urban economy at the time"⁴. At its apex, 21,000 UN staff worked in Cambodia⁵, most of whom based in Phnom Penh, representing almost 4% of the population of the city at that time. The massive arrival of a foreign population to the city created an important external shock in terms of demand for housing in the capital, and largely

² (Tyner et al., 2014)

³ For many years after the fall of the Khmer Rouge regime, they continued to be considered by the UN Security Council as the rightful government of Cambodia, the USA refusing to recognize the Vietnamese-back Government as legal.

⁴ Fauveaud G. 2016. "Real Estate Productions, Practices, and Strategies in Contemporary Phnom Penh. An overview of social, economic, and political issues", In Brickell K., Springer S. (eds), Contemporary Cambodia, Routledge, p. 212-222

⁵ Trannin, S. 2005. Les ONG Occidentales au Cambodge. L'Harmattan.



contributed to accelerating the development of the real estate market. This massive arrival of foreign workforce also initiated the dollarization of the Cambodian economy. Real estate projects started to develop in the city center, in the form of gated communities composed of detached villas. Gradually, the higher income groups of inner city residents started to move to the periphery of the city. Families from the city and neighboring provinces who had managed to rebuild financial power started investing in land around the city. Land prices started to increase and speculation began. In parallel, the housing market developed slower than what was required for all the city dwellers to live properly.

Between 1990 and 2000, the population of Phnom Penh was multiplied by two, largely driven by rural immigration attracted by employment opportunities in the growing garments sector. In 1997, a coup led by Hun Sen, co-prime minister, ousted his co-chair and saw to the stability of the regime. The same year, the first comprehensive public survey on Phnom Penh's urban poor settlements identified 379 settlements, totaling 180,000 people⁶, or 16% of the total city population. Gradually, removal and relocation of such settlements started. In 1998, the Urban Poor Development Fund (UPDF) is created⁷.

In 1999, Cambodia joined the ASEAN and in 2004 was accepted into the World Trade organization. These memberships were granted thanks to rapid liberalization measures of the economy undertaken by the government since the independence of the country, with the support from major international organizations, allowing the return of foreign investments to the country.

2.1.4 Cambodia re-enters the regional and international landscape (2000-2013).

Economic and urban evolutions: the development of a local and international real estate market

Land speculation and real estate development started in the 90's and accelerated throughout the years 2000's. This sector of the economy became an easy way to invest savings generated by the continuous and important growth of the urban economy in the 90's. In parallel, the banking system was still limited, reinforcing the attractiveness of investing in land, and this presented an interesting option for discreetly placing excess capital generated by illegal activities, in some cases supported directly by the government (timber, etc.).

A politically stable country operating on US dollars, with relatively low land prices compared to regional standards and, with a simple and flexible laws made Phnom Penh attractive to regional and international investors. Korean, Chinese, Singaporean and Malaysian investors soon secured land at strategic places in the city. All of this contributed to land inflation⁸. Between the end of the 1990's and the early 2000's, the price of land in the city's periphery could increase from 1 USD per square meter to 600 USD per square meter. Equally, the price of land located in peri-urban zones have increase by 500% between 2009 and 2015⁹, mostly driven by land market speculation. Benefits of the development of the land and real estate markets were unequally shared among Phnom Penh residents. The "capture of the real estate capital"¹⁰ highlighting the socio-political context in which

⁶ Solidarity for the Urban Poor. 1997. The State of Poor Settlements in Phnom Penh, Cambodia.

⁷ Refer to section 5, p.75, for full description of the UPDF.

⁸ Economic Institute of Cambodia, 2006

⁹ Fauveaud, G. ;Weber, S., « Pour une géographie sociale de l'immobilier », EchoGéo [Online], 38 | 2016

¹⁰ Fauveaud G. 2016. "Real Estate Productions, Practices, and Strategies in Contemporary Phnom Penh. An overview of social, economic, and political issues", In Brickell K., Springer S. (eds), Contemporary Cambodia, Routledge, p. 212-222



family groups played and continue to play an important role in real estate in general, and housing more specifically. Major development projects started to emerge as a structuring pieces of the city's urban fabric: satellite cities, largely supported by foreign investment, as well as the multiplication of number of smaller real estate projects, often on the model of gated communities, consisting primarily of multiple rows of three- to four-story shop houses, mushroomed across the city, catering to a developing elite of locals and expatriates. This ignited what has been qualified as the "privatization of urban production"¹¹, creating issues in the connectivity of urban spaces and their administration. The peri-urbanization dynamic was reinforced by rural immigration coming to work in the developing industrial belt. In 2004, 200,000 garments workers, a large majority woman, were working in the nearly 300 factories growing on the outskirts of the city.

In order to increase Phnom Penh Municipality's capacity to manage its territory's development, a succession of reforms modifying the administrative borders of the city, multiplying the city's surface by two between 2007 and 2014. In the same period, 21 000 hectares of agricultural land and lakes were lost and destroyed due to urbanization. Despite efforts to provide technical capacity and governance support to guide urban development, the capital today is largely overrun by the national government. Housing conditions have gradually improved during the decade, notwithstanding the challenges of increasing supply. Government recognized policy gaps nonetheless and started to reflect changes in the National Housing Program as early as 2003, when studies for the 2035 Phnom Penh Capital Master Plan were launched.

Improving living conditions of the poorest urban residents

In the early 2000's, many established low-income communities were displaced from the city center and resettled sometimes up to 30 km away from their initial location, in sites lacking basic infrastructure such as water, electricity, drainage, without to mention proper housing units. As reported, forced displacements during this decade generated "daily coverage in the popular press and a topic of everyday conversation amongst city residents"¹².

The Government, supported by international partners, designed multiple plans and enacted legal tools allowing to improve the life of the most vulnerable communities in the capital. The National Poverty Reduction Strategy (2002) and the Phnom Penh without Slums Strategy (2004-2009) were established. The 2003 sub-decree on social concessions allowed Government to transfer private government land to poor population for agricultural or housing purposes. The sub-decree was presented as the official cessation of evictions in favor of onsite upgrade, mostly by the growing international pressure to stop relocations. Despite a promising turn in policy in 2003, evictions still continued, the most famous being the Boeng Kak Lake eviction, where nearly 4,250 families lived. Between 2003 and 2013, 11% of the urban population was displaced¹³.

Period	# families displaced	# relocation operations
2000-2005	24,251 families	38
2006-2010	18,598 families	35
2011-2014	1,060 families	14
Total 2000-2014	29,715 families	87

¹¹ Shatkin G. The City and the Bottom Line: Urban Megaprojects and the Privatization of Planning in Southeast Asia. *Environment and Planning A: Economy and Space*. 2008;40(2):383-401. doi:10.1068/a38439

¹² Quoted by Fauveaud – ref article.

¹³ 2013 – Policy for the Poor? Phnom Penh, Tenure security and circular #3. The Urban Initiative. Nora Lindstrom



Table 1- Documented relocations in Phnom Penh from 2000 to 2014 ¹⁴.

Between 1982 and 2019, between 60 (documented) to 100 communities were evicted and relocated¹⁵. Currently, at least 200 communities still lack tenure security, subjecting them to the fear of eviction¹⁶.

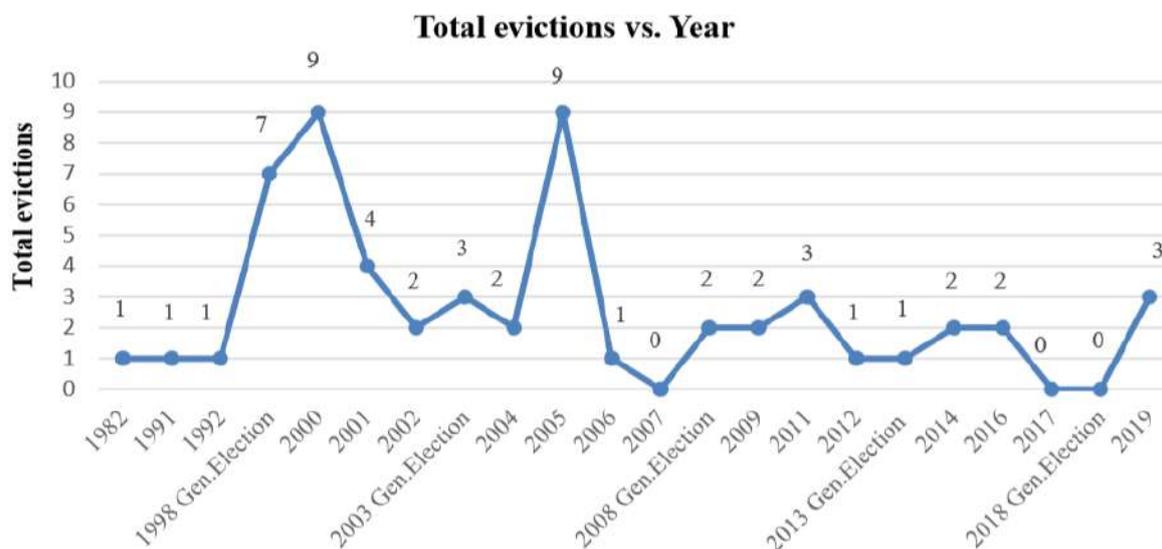


Figure 2 – Documented evictions per year, from 1982 to 2019. Excerpt of 2020 Eviction and relocation report by STT.

2.2 Overview of the legal and strategic frameworks related to housing production, finance and management, urban planning and financial institutions

The legal framework in Cambodia was inexistent at the end of the war and was gradually redeveloped. Three main waves of legal reform can be identified (see figure 3 below).

¹⁴ 2014, Facts and Figures, Phnom Penh’s history of displacement – evicted communities from 1999 to 2014. STT.

¹⁵ 2020 STT eviction and relocations in Phnom Penh

¹⁶ 2018. Sahmakum Teang Tnaut, ‘The Phnom Penh Survey 2018’

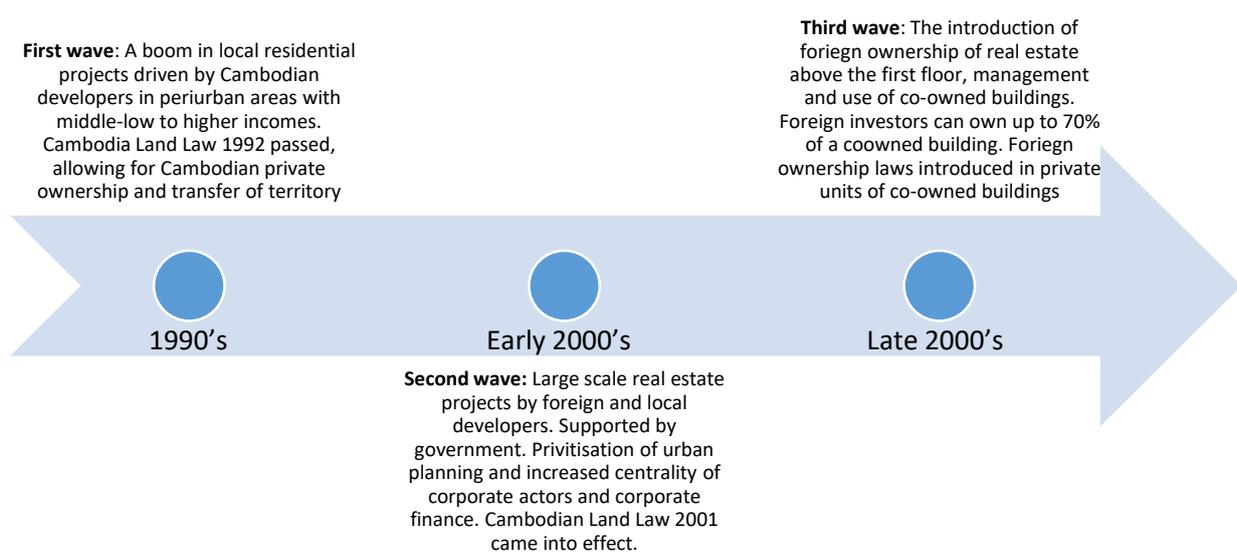


Figure 3 Policy drivers for housing in Cambodia

Overall, the current legal framework is relatively well developed and allows the implementation of various programs in favor of affordable housing overall. However, as highlighted in the Rectangular Strategy Phase IV, “the weakness [currently] lies in the implementation effectiveness, which is primarily related to institutional capacity and the low levels of effectiveness of inter-institutional-ministerial coordination to develop and implement concrete policy measures”. 17

The following table lists the laws and policy influencing the financing and construction of housing in Cambodia. The most important ones are described in more detail in the following sub-section.

¹⁷ Rectangular strategy phase IV (2019-2023).

YEAR OF ISSUANCE	TITLE
1	1996 Law on the organization and conduct of the National Bank of Cambodia
2	1997 Law on Foreign exchange
3	1999 Law on banking and financial institutions
4	2001 (update from the 1992 law) Land law
5	2003 (update from the 1994 law) Investment Law
6	2003 Sub-decree 19 on Social land concessions
7	2006 Sub-decree No.129 on the rules and procedures for reclassification of state public properties and public entities
8	2008 Law on public finance
9	2008 Law on Administrative Management of the Capital, Provinces, Municipalities, Districts and Khans
10	2009 Law on Expropriation
11	2009 Sub-decree 126 on the Management of co-owned buildings
12	2010 Law on providing foreign ownership of co-owned buildings
13	2010 Circular 03 on Resolution of Temporary Settlement on Land Which Has Been Illegally Occupied in the Capital, Municipal, and Urban Areas
14	2011 Civil code and Law on implementing the Civil Code
15	2011 Sub-decree 39 on Management of boreys
16	2013 National policy, strategy and action plan for energy efficiency
17	2014 National Housing Policy
18	2014 Sub-decree 180 creating the General Department of Housing within the Ministry of Land Management, Construction, Urban Planning and Cadaster
19	2014 Ministerial Praka 238 establishing Offices and Units of Housing at the municipal and provincial departments of Land Management, Urban Planning, Construction
20	2015 Sub-decree 42 on the Urbanization of the Capital City, towns and urban areas
21	2015 Phnom Penh Master Plan 2030
22	2017 Policy on Incentive and Establishment of National Program for Development of Affordable Housing
23	2019 Construction law
24	2019 Phnom Penh Sustainable City Plan 2018-2030

Table 2 - List of laws and policy related to public financial institutions, market regulations, land management, urban planning, construction and housing in Cambodia

2.2.1 The 2001 Land law and related texts to land management, transmission, and loss.

The land law

In 2001, the second Land Law passed, clarifying ownership status which had been left in a grey area for the 12 years following the recognition of private ownership in 1989. It confirms ownership rights and their transfer, ensured transparent management of land and protected and regulated the management of State Land, and confirmed the annulment of all property titles prior to 1979 (article 7). Eventually, these efforts, based on previous capitalist hegemony which considered land without legal recognition as dead capital (De Soto 2000), instead allowed for different variations of land title to access financial services and become active members of the country's economic growth.

The law formally recognized ownership rights to people being able to prove they had been occupying said-property before the promulgation of the law, and established processes for delivering ownership titles. It also defined two steps to ownership for property acquired or attributed after 1989. Article 29, states that possession of immovable property, recognized since 1989, may constitute a right over immovable property and may lead to the acquisition of ownership by the holder of the property (Article 29)". This led to the creation of what is commonly referred to as "soft titles", which constitute the recognition of the right to possession, as opposed to "hard titles" which constitute the recognition of full ownership, as defined in Article 30, which states "Any person who, for no less than five (5) years prior to the promulgation of the Law, enjoyed peaceful, uncontested possession of immovable property that can lawfully be privately possessed, has the right to request a definitive title of ownership". The rights of a possessor are "somewhat less" than the rights of a property owner. But the significance of possession right is that it gives the possessor the right to convert possession into ownership, through an application process to obtain a land title. In order for possession to be transformed into ownership, and in order for possession to be valid, Article 38 of the Land Law stipulates that it has to meet five basic conditions: it has to be "unambiguous, non-violent, notorious to the public, continuous, and in good faith". Further details on land ownership, and what is attached to the land, were elaborated on in the 2011 Civil Code.

Co-ownership

The 2009 Law on the management of co-owned buildings was developed to define co-ownership and clarify owners' rights and obligations when living in co-owned buildings. The creation of co-ownership organizations for building management is compulsory when there are three owners or more and stipulate the financial obligations of co-owners to equally participate in the maintenance of the building. This law is not currently implemented, for lack of capacity of public authorities to develop implementation processes at local levels. It offers, however, a legal basis to develop solutions for households living in unsanitary conditions in collective buildings located in the city center, to be upgraded and integrated to the affordable housing stock (see section 4 for more details).

The civil code (2011) confirmed the concept of co-ownership. Co-ownership is defined as ownership of a single thing by multiple persons. Each owner's interest is limited to their own share (Civil Code Article 202). Indivisible joint ownership occurs when there is a partition, such as a wall, moat or hedge distinguishing ownership of adjacent land or buildings and both parties jointly own the partition. While the joint owners have a shared duty, limited to their own share, to preserve, maintain and repair the jointly owned partition they also share a right of use (Civil Code Article 215 and 217). Various provisions relating to the possessory rights are also provided in Article 227 to Article 243.



Expropriation and eviction

The 2001 Land Law states that “no person may be deprived of his/her ownership, unless it is in the public interest. An ownership deprivation shall be carried out in accordance with the forms and procedures provided by the law and regulations and after fair just compensation in advance” (Article 5). The Law on Expropriation (2009) suggests that fair compensation is based on market price or replacement cost as determined by an independent committee or agent.

The most common reason for the eviction of communities has been illegal occupation of state public property¹⁸. Sub-Decree No. 129 sets the strategy and legal procedures for the managing and functioning of state properties. The State Property Management Authority is in charge to observe and report on the public interest conditions of state public property and has the capacity to reclassify state public property as state private property. However, it rarely releases reports outlining how it determined a property had been reclassified¹⁹. In addition, there is no easily accessible database providing information on the inventory of the public property in Phnom Penh, meaning communities and NGOs are unable to access information that could assist in avoiding future conflict or preparing legal defenses for communities that will face eviction²⁰. It also prevents actors outside governmental spheres to develop and to support government – both national and local – with developing potential affordable housing projects.

2.2.2 The 2003 Social Land Concession sub-decree, Circular 3 and other related texts on relocation and upgrade.

Sub-decree on social land concession

Developed with the support of the ADB and the GIZ, this sub-decree defines the criteria, procedures and mechanism for the granting of social land concessions for residential use and/or family farming. This legal mechanism allows the State to transfer private state land for social purposes for the poorer populations who lack land for residential and/or family farming purposes. Among the nine purposes listed in the sub-decree, the following are the most relevant to our research:

1. provide land for residential purposes to poor homeless families;
2. provide land to resettle families who have been displaced resulting from public infrastructure development;
3. provide land to the families suffering from natural disaster;
4. develop areas that have not been appropriately developed.

The mechanism can be activated both by national and local level government. A 2016 GIZ evaluation of the mechanism’s implementation highlighted the adequacy of the tool with its intended purposes, especially for rural areas, but suggested it wasn’t operational without subsidies or technical external support.

The Circular 3 on urban settlements upgrade.

Intended to provide resolution for temporary settlements on state land which has been illegally occupied. It offers guidance to dispute resolutions for communities occupying public property and

¹⁸ 2019 STT report on eviction in Phnom Penh.

¹⁹ *ibid*

²⁰ 2019 STT report on eviction in Phnom Penh.



the relevant authorities to attempt to resolve conflicts. It outlines a process which allows the community in partnership with local authorities, to determine a solution from relocation where the temporary settlement's location is not suitable, or on-site upgrading where temporary settlement's location is suitable for such solution. Basic public infrastructure and services to support livelihoods should be provided by local government. The relocation processes available through Circular 03 require occupation at relocation sites for a duration of 10 years before land titles will be received, which has been criticized for its lengthy duration in providing security of tenure.

Following its publication in 2010, some have pointed out that Circular 03 does not coincide with any reduction in evictions or the provision of better relocation outcomes for communities²¹. Since its release, there have been 19 communities evicted or are undergoing eviction; and only three communities reported authorities were prepared to use or had used Circular 03 in Phnom Penh. The low recourse to the tool may be because it is a Circular or an explanatory note, and not a law. While the mechanism contains some potentially useful ways to resolve legal issues related to alleged illegal land occupation, it also assumes that communities are illegally occupying state land, further providing weight against their arguments to tenure and their rights to housing.

2.2.3 The 2014 National Housing policy & the 2017 Policy on Incentive and Establishment of National Program for Development of Affordable Housing: the legal recognition of the need for affordable housing

The National Housing Policy is the first ever legal document in Cambodia that attempts to define 'affordable housing' and estimate the needs. It highlights the different steps which are needed to allow for the development of affordable housing, both affordable homeownership and rental. However, the document remains broad in terms of the various finance and housing needs across different groups, which makes implementation of the document challenging for all stakeholders involved.

The 2017 Policy on the Incentives and Establishment of National Program for Development of Affordable Housing complements the 2014 policy by attempting to establish a framework to incentivize support for the development of housing priced between 15,000 USD and 30,000 USD. Developers who build a minimum of 100 units in that price range, located at maximum 20 km from the city center, and plan for green and communities spaces within the development, can benefit from a series of developer tax, land and infrastructure concessions and facilitation of bureaucratic procedures to obtain construction permits, business licenses and other necessary documents for private developers²². Developers must also cooperate with financial institutions to create credit schemes with low-interest rates to enhance the project's affordability. Community organizations and NGO's are encouraged to invest in affordable housing and take advantage of the current policy, although progress remains slow from these organizations, who often lack the capital to invest.

The policy's implementation is managed by an inter-ministerial committee composed of the Ministry of Economy and Finance's Public Private Partnership Unit and the Ministry of Land Management, Urban Planning, Construction and Cadaster Housing Department, who are jointly in charge of instructing and supporting project proposals between private sector and the government.

Private sector builders, such as WorldBridge Housing Ltd (Kandal's Saang district), B&BM Development Co, Ltd (Kandal Province), Bun Ches Group, M R Sokha Resident Group (Poipet, Banteay Meanchey province) and Arakawa Ltd (Sen Sok district) have started to invest in affordable housing projects in low- and middle-income households, as reported by national news outlets.

²¹ Lindstrom, N. 2013. Policy for the poor? Phnom Penh, tenure security and circular 03. The Urban Initiative.

²² <https://capitalcambodia.com/affordable-housing-in-cambodia-a-new-frontier/>



However, to this day, only four developers have submitted an application for review by the inter-ministerial committee, and only one fitted all the policy’s requirements and has been granted the concessions. This represents about 3,000 units brought to the market between 2019 and 2020. This is a far cry from the estimated 55,000 units required per year to reach the target of 800,000.

Developers, both small and large, interviewed for this study pointed to the rigid affordable housing definition within the policies, and stressing the difficulty to identify and acquire available land at less than 20 km from the city center at a suitable price allowing to keep housing units within the range of \$15,000 to \$30,000 USD. It also fails to take into account linkages between employment areas and residential areas. One major developer pointed out for garment workers whose factory is located in the second urban belt of Phnom Penh (between 15 to 20 km from the city center), there is potential for affordable housing projects to be located a further 10 km from the factory / employment area. However, this scenario doesn’t currently fit within the policy definition.

2.2.4 The 2015 Phnom Penh Master Plan and the Phnom Penh Sustainable City Plan 2018-2030

From early 2000 onwards, Phnom Penh City Hall has been involved in guiding the urban exponential urban growth through the development of various tools and plans. A draft of a Phnom Penh Master Plan was developed between 2003 and 2008. A short version was adopted in 2015 by the Council of Ministers. The document suggests an organization of the city around structuring networks (roads, water and greenery), suggesting general land uses at a metropolitan scale (see image 1). However, the document is often overlooked when it comes to approving and planning for new developments, and leaves room for strategic land use planning to effectively guide the city’s development.

Adopted in 2018, the Phnom Penh Sustainable City Plan sets a priority action plan to develop affordable housing resistant to natural disasters, available throughout the city. It provisions to start with a pilot demonstration of low-cost sustainable housing project.

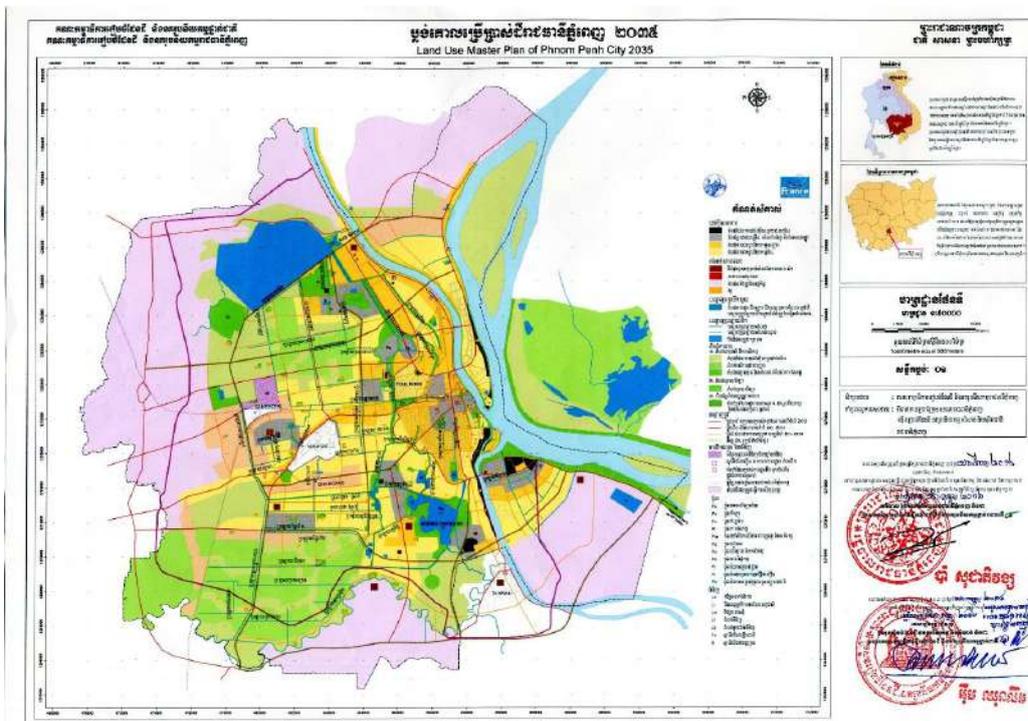


Image 1 - The approved 2035 Phnom Penh Master Plan (2015).

Conclusion

The quick adoption of market approaches started in the 1990's, and private property was introduced between 1989 and 1992. By 1997, cadaster and building permits were introduced. A key land law was introduced in 2001, which reinforced the use of private land titles which remains one of the most important policy reforms that continue to shape the local housing market. This process has been described by scholars as 'housing financialization' (Fauveaud 2020; Levitt, 2013)^{23 24}; a process often seen in emerging and middle-income economies in transition toward a financialized neoliberalism initiated in developed countries. Fauveaud (ibid) argues that low-income countries (LIC's), such as Cambodia, experience a process of 'capital switching', where the real economy is integrated into the global finance architecture, and, to a degree, replaced by developed financial sector that involves housing loans, bonds and secondary markets, mortgage finance, and bank loans for limited portions of the middle- to upper-middle class. It is, at heart, a response to an immediate crisis of economic capital or over-accumulation, and, the need for surplus capital to find a home (Harvey 1999)²⁵. The real estate economy then becomes disconnected from the real needs of people, which is the situation in Phnom Penh at present.

²³ Gabriel Fauveaud (2020) The New Frontiers of Housing Financialization in Phnom Penh, Cambodia: The Condominium Boom and the Foreignization of Housing Markets in the Global South, *Housing Policy Debate*, 30:4, 661-679

²⁴ Levitt, K. (2013). *From the great transformation to the great financialization: On Karl Polanyi and other essays*. London: Zed Books.

²⁵ Harvey, D. (1999) *The Limits to Capital*. London: Verso



3 AFFORDABLE HOUSING IN PHNOM PENH TODAY

This section briefly discusses and expands on a conceptual definition for affordable housing; and introduces analysis on household income and expenditure and housing prices, to create different affordability scenarios. A market review then presents current housing units available across different price ranges, followed by a brief presentation of selected projects exploring housing solutions less correlated with traditional markets and investments. A price for housing per income group is outlined, allowing to gather a clearer picture of costs and households' capacity to purchase and repay a home without putting themselves at financial risk.

3.1 Defining affordable housing in Cambodia

"[Housing] affordability expresses the challenge each household faces in balancing the cost of its actual or potential housing, on the one hand, and its non-housing expenditures, on the other, within the constraints of its income."²⁶

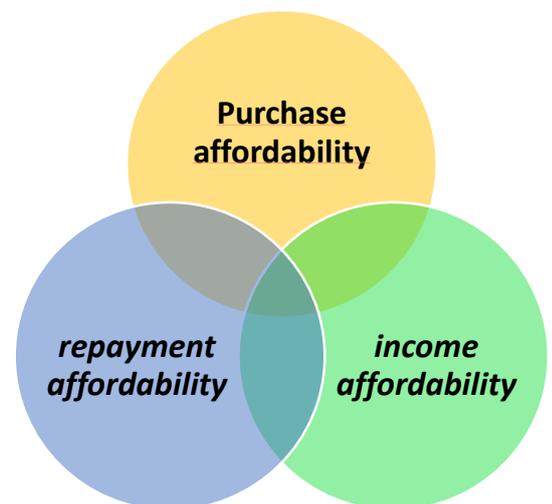
Affordability in the housing sector is complex, and usually impossible to reach a consensus on what it should be. There is a widespread acceptance that the appropriate indicator of affordability is defined by the ratio of housing cost to income. This normative approach can be justly criticized, considered over simplistic. However, if other approaches such as occupant affordability, median affordability²⁷, or residual income approach²⁸ better encompasses the concept of housing affordability, the necessary data to develop such approaches isn't available in Phnom Penh.

For the purpose of studying affordable housing in Phnom Penh, this report refers to affordable housing as the relationship between expenditure on housing costs (purchase price, loan repayments or rents, transactions costs) and household income.

Currently, international measure to define housing affordability is equal three times the annual household income. If the housing price equals five times or more households' annual income, then it is considered to be highly unaffordable.

Affordability should be considered in three measures:

- 1) Income affordability – meaning the household income is sufficient to meet basic living costs (including food, electricity, water, health and education) after allowing for housing costs.
- 2) Repayment affordability – understood as the ability to pay back the housing loan (principal and interest) without falling behind on repayments or defaulting on the loan and;
- 3) Purchase affordability – understood as the ability to afford the housing unit price, plus associated transactions costs, in a way which allows to meet both income and repayment affordability.



²⁶ 2006 Michael E. Stone, "What is affordable housing? the case for the residual income approach" University of Massachusetts Boston. HOUSING POLICY DEBATE VOLUME 17 ISSUE 1© 2006 FANNIE MAE FOUNDATION.

²⁷ Both of these concepts were defined and measured during the study on affordability in 200 cities worldwide by the Lincoln Institute of Land Policy, and published in 2018.

²⁸ ibid 16.

The RGC's 2017 affordable housing policy specifies that "affordable price refers to an appropriate pricing and instalment plan in which the purchase of rental of the housing should not seriously affect families' financial conditions [...]" and should not represent more than 30% of households annual spending.

Equally important is the adequacy in quality, i.e. housing conditions which include access to daylight, air circulation, clean water, sanitation, and safe electricity installations; and location, allowing access to markets, employment and essential services. Currently, there is no official definition nor count of housing units in unsanitary conditions (squalor) in Phnom Penh.

The 2014 National Housing Program mentions that if "[affordable] rental housing has not been taken in consideration, [...] small scale investors from the private sector offer a considerable supply of [rental] shelter, ie. for garment factory workers, as well as students and teachers."²⁹ Rental rights and obligations are regulated under the Civil Code³⁰ and, as such, affordable housing rentals do not exist under Cambodian law currently and are not provided by the formal real estate market (see below – subsection 4 and chapter 3).

Defining housing in Cambodia

In Cambodia, houses come in many different shapes and sizes and the Khmer word for house differs depending upon the style of the housing. Houses can hold many families, can float on water, can be moved, or disassembled quickly, or can resemble modern Western-styled mansions. In addition, the interpretation of housing based on its understanding at plain language is varied. The Cambridge Dictionary defines housing as 'buildings for people to live in'. Others have simply defined it as 'shelter'.

Adequate housing as defined by the OHCHR corresponds to housing which meet all of the following criteria:

- Durable housing of a permanent nature that protects against extreme climate conditions.
- Sufficient living space, which means not more than three people sharing the same room.
- Easy access to safe water, in sufficient amounts, and at an affordable price.
- Access to adequate sanitation in the form of a private or public shared toilet by a reasonable number of people.
- Security of tenure that prevents forced evictions.

The right to adequate housing is, at its core, the right to a place to live in dignity and security.

Therefore, housing that does not assist in the provision of an adequate standard of living must not be considered to fulfill this right. Examples of this would be houses that do not provide adequate shelter against the rain, or housing that is so expensive that a person is faced with unreasonable economic burden and the threat of eviction as a result.

In context, 'housing' must be understood to mean a place of shelter, usually a building, that is in assistance of the provision of the right to an adequate standard of living. By this definition, it becomes apparent that 'housing' could mean a variety of buildings including homeless shelters, joint-housing, or rental housing.

Daniels, I. 2020 Housing rights in Cambodia - Briefing paper. PIN, PED & GGGI. p.6

²⁹ 2014 National Housing Policy. p.9

³⁰ 2020 Housing rights in Cambodia – Briefing paper – PED & PIN – Isaac Daniels.



3.2 Income and consumption in Phnom Penh

Observing households' income and consumption in Phnom Penh from 2010 to 2017 allows for sharper understanding of affordable housing pricing for it to remain in the affordability bracket for households in Phnom Penh.

3.2.1 Evolution of income per capita and per household – 2010 – 2017.

The average mean income per household per month has multiplied by 1.45 in the past seven years, increasing from 1,944,000 riels (\$ 475) in 2010 to 2,833,000 riels (\$ 690) in 2017 (figure 4 – left).

Proportionally, household consumption in Phnom Penh has also increased, multiplied by 1.06 on the same period, denoting households' gradual increase of savings (figure 5 – right).

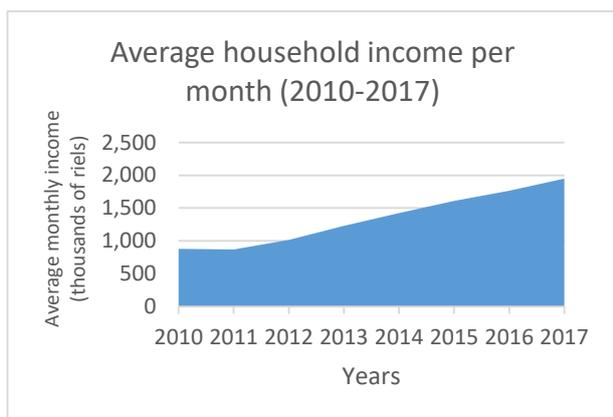


Figure 4 - Average household monthly income evolution from 2010 to 2017.

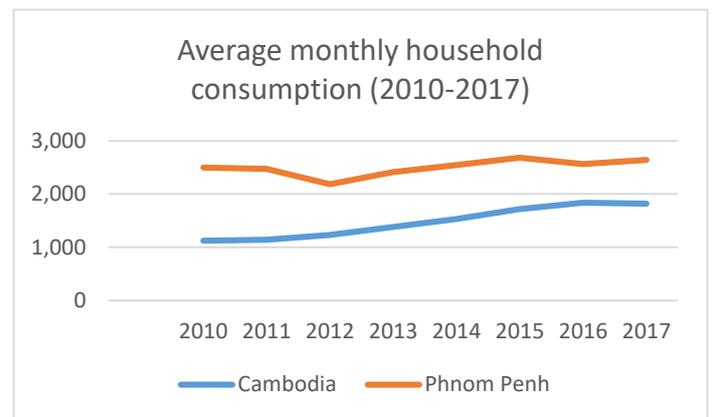


Figure 5 - Average household monthly expenditure evolution from 2010 to 2017.

However, the mean average hides large income disparities among households. Breaking down income in percentiles allow to observe the change in income distribution from 2010 to 2017 (figure 6). The average income per month for the poorest (5th percentile) of the population (P05) has increased from 57,800 riels (14 USD) per person per month in 2010 to 151,000 riels (37 USD) per person per month in 2017. In parallel, the average income per month of the 95th percentile of the population (P95) has equally increased, from 1,222,400 riels (298 USD) per person per month in 2010 to 1,388,000 riels (339 USD) per month per person in 2017. If the average income of the 5th percentile has multiplied by nearly 3 times on this period (2.6 times), the average income of the 95th percentile has increased by 1.2 times.

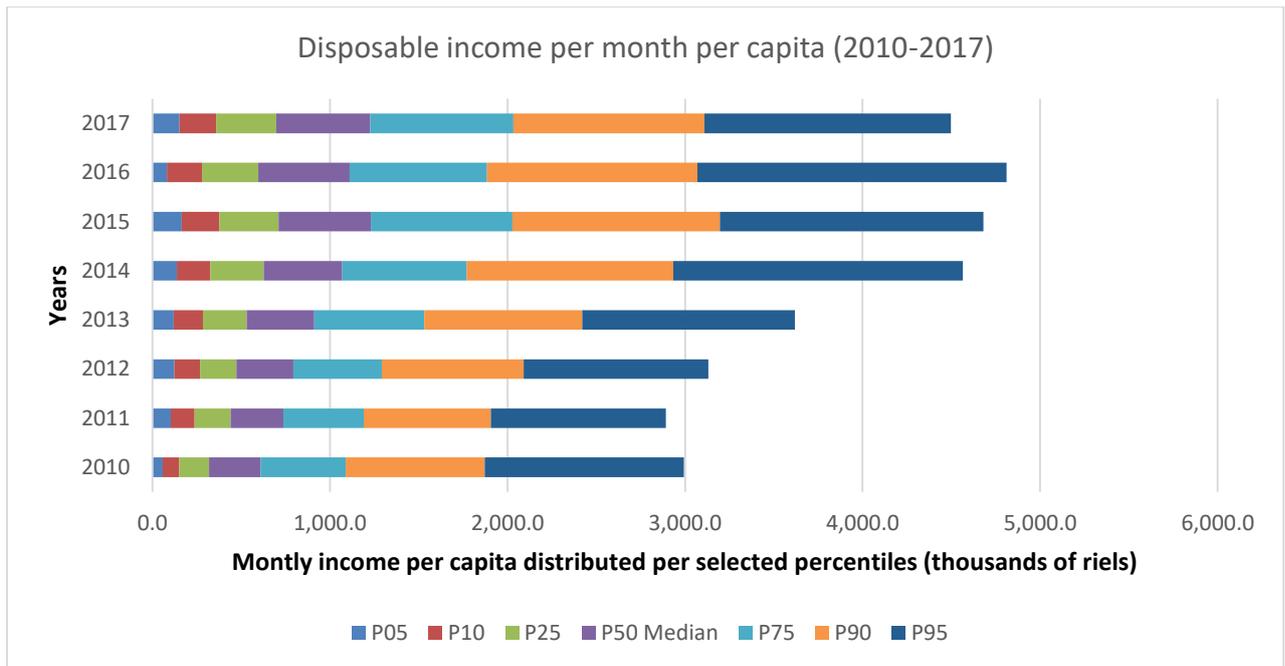


Figure 6 - Evolution of monthly income per capita per selected percentiles

Observing the distribution of wealth across percentile groups, it is interesting to note that over the same period, 95 percent of the population earn together less than 70 percent of the city's wealth, living the richest 5% of the population (P95) to capture more than 30 percent of the monthly income per capita in 2017 (figure 7 – below).

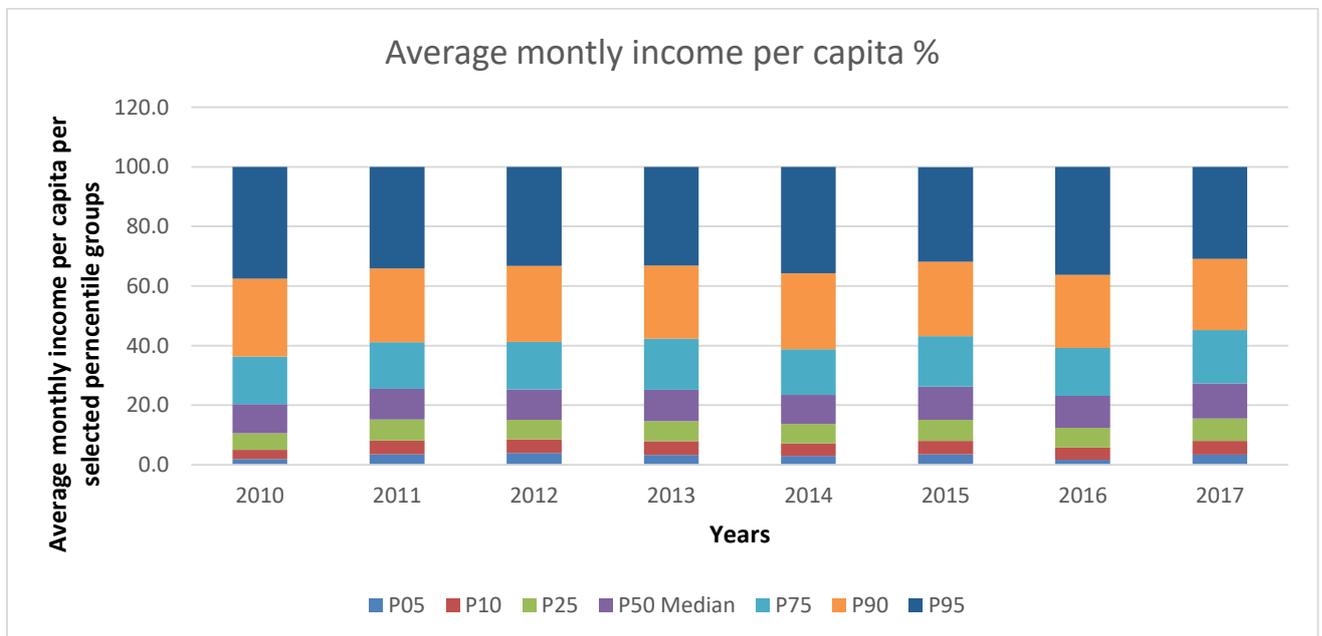
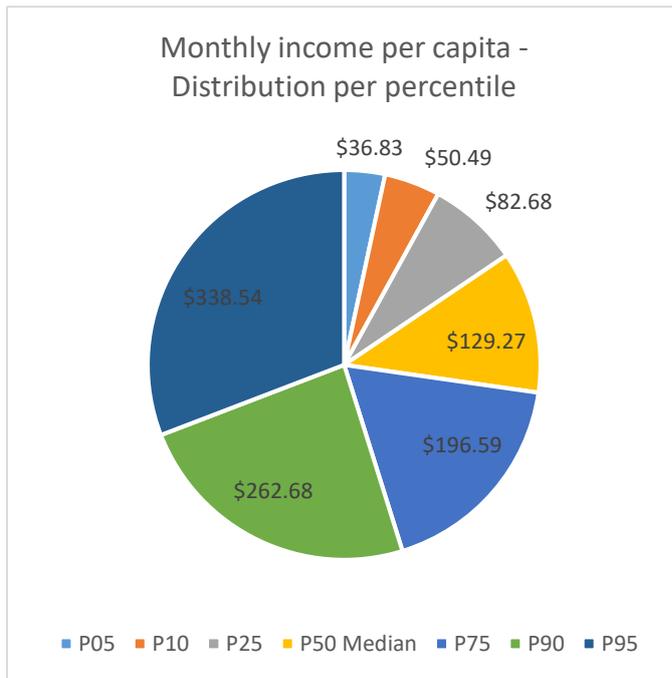


Figure 7- Evolution of the average monthly income of selected percentile groups from 2010 to 2017.



In 2017, the 95th percentile (P95) earned on average per month per person nearly ten times (9.2) more than people belonging to the 5th percentile (P05).

In contrast, 5 percent of the population lived with an average of 1.23 USD per day (36.83\$ per month) or less, the 10th percentile with an average of 1.70 USD per day, and more than 90% of the city's population live with less than 10\$ per day.

Household income, as a proxy measure for wealth, in Phnom Penh is largely captured by households belonging to the 90th percentile and above: more than half of income is captured by P90 and P95 (figure 8).

Figure 8 - Distribution of monthly income per capita per percentile in 2017 in Phnom Penh.

3.2.2 Household expenditure for housing

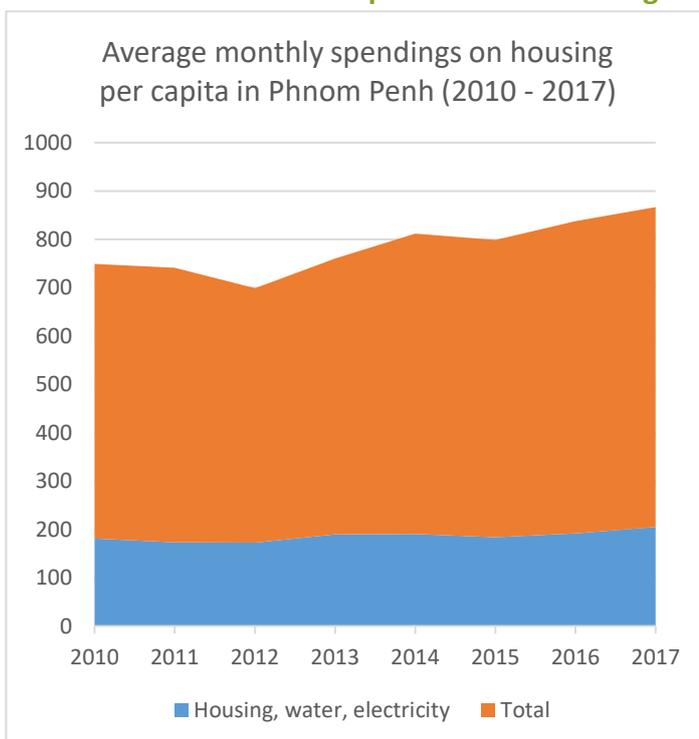


Figure 9- Evolution of the total monthly household consumption and expenditure for housing from 2010 to 2017.

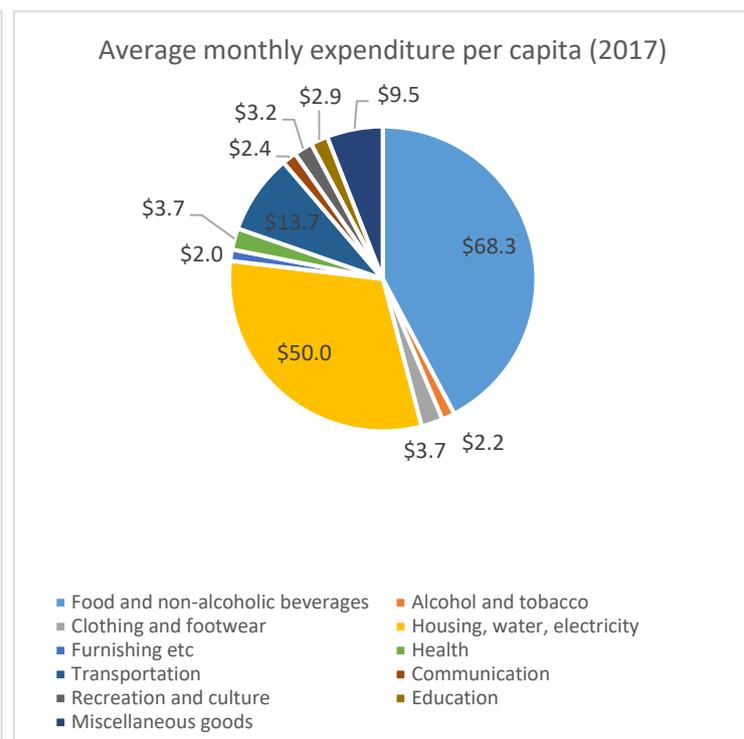


Figure 10- Distribution of average monthly expenditure items per person in 2017 in Phnom Penh.

In 2017, housing represented on average 31 percent of monthly expenditure per person in Phnom Penh (figure 9 – left). This is the second largest expenditure item after food and non-alcoholic

beverages, with one person spending on average 50 USD per month on housing, which would total 250 USD for a household of five active income earners (figure 10 – right). However, these averages hide vast variations, especially for the lower and most vulnerable groups, as outlined below.

3.2.3 Affordability scenarios based on available income

Building the definition of affordability as a ratio based on household income, the following section presents various affordability scenarios.

	Q1	Q2	Q3	Q4	Q5
Average monthly income per capita	\$ 51.46	\$ 97.32	\$ 140.24	\$ 192.93	\$ 365.61
Average annual household income (1)	\$ 3,087.80	\$ 5,839.02	\$ 8,414.63	\$ 11,575.61	\$ 21,936.59
If housing represents 3 times annual HH income	\$ 9,263.41	\$ 17,517.07	\$ 25,243.90	\$ 34,726.83	\$ 65,809.76
If housing represents 3.5 times annual HH income	\$ 10,807.32	\$ 20,436.59	\$ 29,451.22	\$ 40,514.63	\$ 76,778.05
If housing represents 4 times annual HH income	\$ 12,351.22	\$ 23,356.10	\$ 33,658.54	\$ 46,302.44	\$ 87,746.34

Table 3 - Estimation of affordable to mildly unaffordable housing units based on average annual income per household per quintile (Q1 to Q5)

Note (1): Average annual household income was calculated by multiplying average monthly income per capita by five (average number of household members) and twelve (from month to year).

The table above indicates a range of affordability from affordable (three times annual household income) to mildly unaffordable (four times annual household income).

For housing to be considered affordable for all, including the first quintile, housing units should be priced on average \$10,000 USD, which is significantly lower than the recommend price range in the government’s policy (\$15,000 USD to \$30,000 USD). If households from the first quintile invested the equivalent of four times their annual income in housing (typically known as housing stress), they still could not afford a home under the current policy.

Furthermore, quintiles can mask deep inequality in income, since it averages out income per capita. The composition of a household (the number of income earners) highly influences the available annual income (table 4 below), as well as the number of dependents. This last parameter was, however, not available for analysis. The following table estimates disposable annual income based on household composition (number of income earners).

Monthly income per cap	Income groups (income per month)									
	< \$37.5 (<1.25/day)	< \$47.4 (<\$1.58/day)	< 60 USD (< \$2 per day)	190 USD Minimum wage worker	293 USD Civil servant	501-1000 USD	1001-2000USD	2001-3000USD	3001-4000USD	4001 USD +
Annual income HH 1IE	\$ 450.00	\$ 568.80	\$ 720.00	\$ 2,280.00	\$ 3,516.00	\$ 9,000.00	\$ 18,000.00	\$ 30,000.00	\$ 42,000.00	\$ 54,000.00
Annual income HH 2IE	\$ 900.00	\$ 1,137.60	\$ 1,440.00	\$ 4,560.00	\$ 7,032.00	\$ 18,000.00	\$ 36,000.00	\$ 60,000.00	\$ 84,000.00	\$ 108,000.00
Annual income HH 3IE	\$ 1,350.00	\$ 1,706.40	\$ 2,160.00	\$ 6,840.00	\$ 10,548.00	\$ 27,000.00	\$ 54,000.00	\$ 90,000.00	\$ 126,000.00	\$ 162,000.00
Annual income HH 4IE+	\$ 1,800.00	\$ 2,275.20	\$ 2,880.00	\$ 9,120.00	\$ 14,064.00	\$ 36,000.00	\$ 72,000.00	\$ 120,000.00	\$ 168,000.00	\$ 216,000.00
	Q1	Q2	Q3	Q4	Q5					

Table 4 - Estimation of annual income based on the number of Income Earners (IE) per household

For instance, if a household is composed of only one income earner working in the garment sector and earning minimum wage (190 USD per month in 2020), it will belong to the 1st quintile. However, if the household is composed of two people working on minimum wage, it will fall into the 2nd quintile.

Breaking down annual income per household composition allows more accuracy in how housing should be priced to remain affordable for the targeted population within the current policy.

Monthly income per cap	Income groups (income per month)									
	< \$37.5 (<1.25/day)	< \$47.4 (<\$1.58/day)	< 60 USD (< \$2 per day)	190 USD Minimum wage	293 USD civil servant	501-1000 USD	1001-2000USD	2001-3000USD	3001-4000USD	4001 USD +
Annual income HH 1IE	\$ 1,350.00	\$ 1,706.40	\$ 2,160.00	\$ 6,840.00	\$ 10,548.00	\$ 27,000.00	\$ 54,000.00	\$ 90,000.00	\$ 126,000.00	\$ 162,000.00
Annual income HH 2IE	\$ 2,700.00	\$ 3,412.80	\$ 4,320.00	\$ 13,680.00	\$ 21,096.00	\$ 54,000.00	\$ 108,000.00	\$ 180,000.00	\$ 252,000.00	\$ 324,000.00
Annual income HH 3IE	\$ 4,050.00	\$ 5,119.20	\$ 6,480.00	\$ 20,520.00	\$ 31,644.00	\$ 81,000.00	\$ 162,000.00	\$ 270,000.00	\$ 378,000.00	\$ 486,000.00
Annual income HH 4IE+	\$ 5,400.00	\$ 6,825.60	\$ 8,640.00	\$ 27,360.00	\$ 42,192.00	\$ 108,000.00	\$ 216,000.00	\$ 360,000.00	\$ 504,000.00	\$ 648,000.00

Table 5 - Affordable housing price if price is three times annual household income.

Monthly income per cap	Income groups (income per month)									
	< \$37.5 (<1.25/day)	< \$47.4 (<\$1.58/day)	< 60 USD (< \$2 per day)	190 USD Minimum wage	293 USD civil servant	501-1000 USD	1001-2000USD	2001-3000USD	3001-4000USD	4001 USD +
Annual income HH 1IE	\$ 1,800.00	\$ 2,275.20	\$ 2,880.00	\$ 9,120.00	\$ 14,064.00	\$ 36,000.00	\$ 72,000.00	\$ 120,000.00	\$ 168,000.00	\$ 216,000.00
Annual income HH 2IE	\$ 3,600.00	\$ 4,550.40	\$ 5,760.00	\$ 18,240.00	\$ 28,128.00	\$ 72,000.00	\$ 144,000.00	\$ 240,000.00	\$ 336,000.00	\$ 432,000.00
Annual income HH 3IE	\$ 5,400.00	\$ 6,825.60	\$ 8,640.00	\$ 27,360.00	\$ 42,192.00	\$ 108,000.00	\$ 216,000.00	\$ 360,000.00	\$ 504,000.00	\$ 648,000.00
Annual income HH 4IE+	\$ 7,200.00	\$ 9,100.80	\$ 11,520.00	\$ 36,480.00	\$ 56,256.00	\$ 144,000.00	\$ 288,000.00	\$ 480,000.00	\$ 672,000.00	\$ 864,000.00

Table 6 - Affordable housing price if price is four times annual household income

For example: a possible, though less likely scenario is a home purchased for approximately \$42,000 USD by a household composed of at least four income earners working at the lowest wage of civil service (\$293 USD per month in 2020) under the current policy, this would be considered affordable. A more likely scenario is a home purchased for around \$18,000 USD by a household composed of a minimum of two people working at minimum wage. They would invest four times their annual income if they wish to purchase it, which is considered mildly unaffordable.

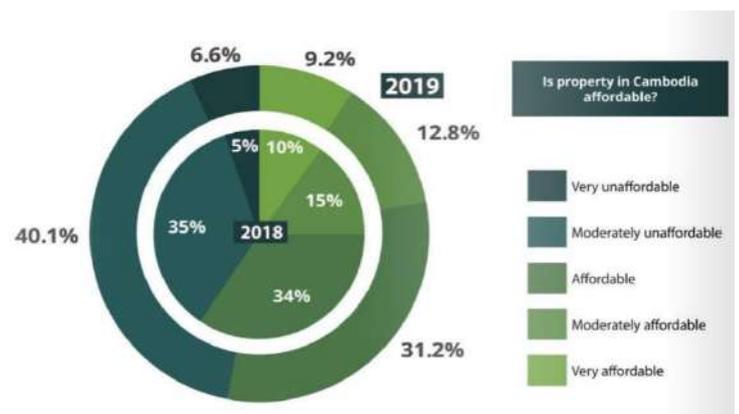
The income groups highlighted in blue on tables 5 and 6 - those who earn minimum wage and civil servants - correspond to the affordable housing prices as defined in the policy, and the price range that many developers are selling on the market. Indeed, this points out a gap within the current policy, notably all households who live either with one income earner on minimum wage or earn less than the minimum wage cannot access housing. For those who are vulnerable and who need safe, secure and affordable housing the most - for example a household with four people earning less than 2 USD but more than 1.58 USD³¹ - are unlikely to afford and maintain payments for a \$15,000 USD home, which represents more than four times the household's annual income.

³¹ 1.58 USD was estimated as the adjusted poverty threshold for Phnom Penh in 2014. This indicator has not been reevaluated since and should hence be used with caution.



If affordability can be calculated and defined by multiple indicators, the perception of what affordable housing is doesn't always match.

Interestingly, a 2019 real estate consumer survey³² shows that nearly one third of respondents consider the current market as affordable. Almost half of respondents however consider it unaffordable, either moderately (40.1%) or very (6.6%) unaffordable, a feeling which has increased by nearly 5% compared to 2018.



3.3 Homeownership in Phnom Penh today

The following sub-section was elaborated through the use of data produced by a real estate valuation company, a rapid market assessment conducted over the phone with sales agents and interviews with developers conducted by the research team, and through a literary review. It is not in any case comprehensive, but despite potential gaps, it offers a general idea of what the current housing market looks like today in Phnom Penh.

3.3.1 The formal housing market in Phnom Penh

The gradual growth of small and large real estate companies in the 2000's – driven on one side from households investing their savings into land and real estate and; from the other from big companies reinvesting capital made from the emerging industries in the country and/or supported by foreign direct investment (FDI) into real estate– paved the way for the creation of about fifteen major real estate players in Phnom Penh today. Some have continued expanding by partnering up with regional and international real estate consortiums, as show the growing trends of FDI into the real estate sector, which rose sharply between 2015 and 2019.

FDI inflow to Cambodia's real estate sector (including all real estate and condos) in 2019 was USD \$437.3 million. This inflow was from China 58.8%, Singapore 15.2% and other countries 26.0%.

	2015	2016	2017	2018	2019
Equity investments	1816.4	2464	2769.1	3079.8	3678.8
Investments in real estate	377.7	311.2	365.4	361.7	437.3

Table 7- Investment into real estate in Cambodia (in millions, USD).Reference NBC Annual report 2019

³² 2019 CBRE market survey. Numbers presented here are to be interpreted with caution as 25% of respondents were foreigners and a majority of respondents earned 450 USD or more per month.

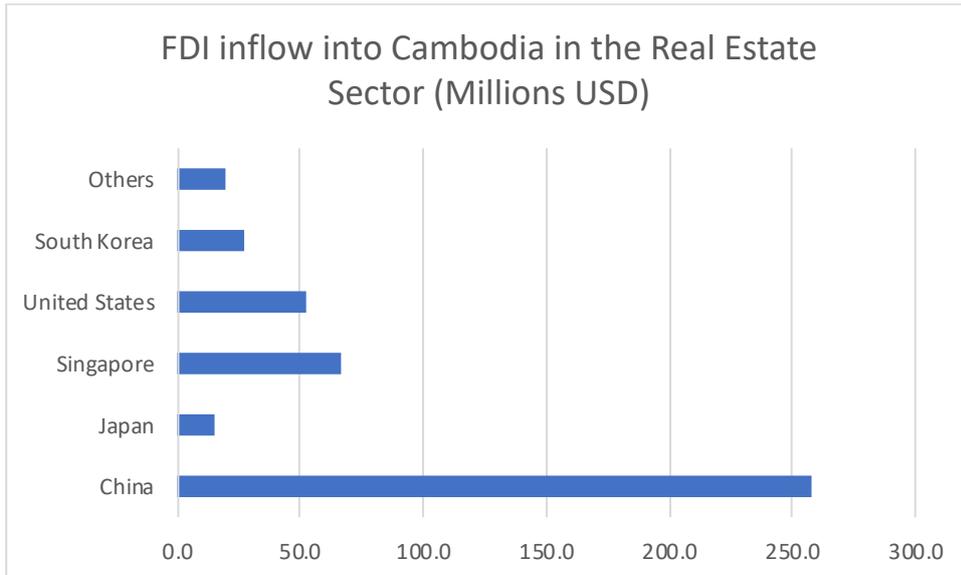


Figure 11: FDI inflow into Cambodia in the Real Estate Sector (Millions USD), 2019, Reference NBC Annual report 2019

The dominant housing paradigm has been through the ‘condominium boom’ which has placed primacy on foreign investors - predominantly from China, Singapore, Japan, United States and South Korea (see figure 1). This is evidenced between 2010 and 2017, where around 53% of the requests for building permits that were filed with the municipality related to condominiums (319 out of 602 building permits for this period), which represents almost 7.4 million square meters of residential space. Between 2010 and 2016, the number of building permits multiplied almost tenfold (Fauveaud, op cit).

The condominium and borey markets

In the past decade, many luxurious condominiums and borey projects have been developed, and many more are on their way. Some are part of larger satellite cities projects – such as CamKo city in the north-west of the city center, or are “stand-alone”. Every project offers various levels of amenities and luxuriousness, and promote a special brand or identity.



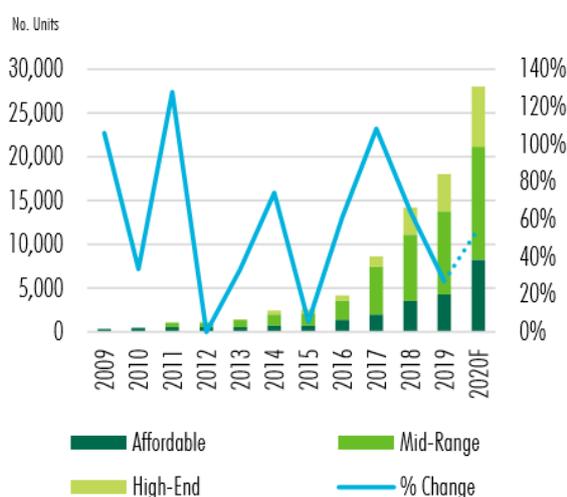
Image 2 – Borey The Star Herminus, developed by Peng Huot, in Khan Chbar Ampov, Phnom Penh. Left: one model of detached villa, right: playground and pool for borey residents.

CBRE Cambodia, a branch of international real estate and valuation company, breaks down condominium projects into three categories (table 8), based on different service standards.

	USD per m2	Unit 30 m2	Unit 50 m2	Unit 79 m2
Affordable	\$ 1,600.00	\$ 48,000.00	\$ 80,000.00	\$ 126,400.00
Mid-range	\$ 2,600.00	\$ 78,000.00	\$ 130,000.00	\$ 205,400.00
High-end	\$ 3,100.00	\$ 93,000.00	\$ 155,000.00	\$ 244,900.00

Table 8 - Categories of condominium units per average price per square meter. Source CBRE Q1 2020 report.

Based on the company’s classification, a 50 m2 condo unit priced 80,000 USD is considered to be affordable.



Source: CBRE Research, Q1 2020

Figure 12 – Phnom Penh condominium supply by grade (2009-2020F).



*Villa includes Single Villas, Prince Villas and Queen Villas. Source: CBRE Research, Q1 2020

Figure 13 – Quoted sale prices for landed property by unit type.

As shown in Figure 12, the number of high end units have gradually increased since 2016. In the mid-range category, however, pricing at around \$130,000 USD for a 50 m2 unit, is increasing the fastest. The supply of the “affordable” condo units has also been gradually increasing since 2015 and is planned to nearly double from 2019 to 2020, which could hint at developers gradually re-orienting their offer towards a local clientele, and away from foreign clients investing in real estate rather than living in the units.

For boreys, the average sale price is higher. As seen on figure 13, the average cost of a flat in a borey is around \$103,000 USD. A link house cost on average is \$127,000 USD; and shop houses and twin villas average prices oscillate between \$226,000 and \$272,000 USD.

Primarily targeting international buyers and wealthier local investors, condominiums and boreys are considered highly unaffordable for the majority of the population.



What are the cheapest housing units on the market currently?

A rapid market analysis of borey real estate products was conducted over the phone at the end of September 2020 over a three-day span by the research team. This market survey was based on real estate ads found online, sourced on real estate realtors' websites and social media³³. Data collection was focused on identifying the cheapest flat and link houses available on the market. This data cannot be considered as a comprehensive market survey, however can be considered to illustrate market tendencies of the end of year 2020.

The vast majority of real estate products enquired about were link or flat houses, only one borey offered villa houses only. Price ranged from \$36,680 for a 49 m² link house in Khan Por Senchey to \$165,000 for 296 m² link house in Khan Dangkao.

The table below summarizes the average price and the average surface available for purchase by Khan.

	# real estate projects per Khan	Average price per Khan per m ²	Average unit surface (sqm)
Dangkao	4	\$ 528.75	58.75
Kandal	1	\$ 746.27	67.20
Preak Pnov	1	\$ 855.26	86.00
Kambol	1	\$ 857.14	49.00
Russey Keo	2	\$ 976.86	49.50
Chbar Ampov	3	\$ 1,071.61	60.13
Chroy Changvar	1	\$ 1,111.11	83.85
Sen Sok	1	\$ 1,136.36	129.00
Por Senchey	3	\$ 1,497.53	54.33
Mean Chey	2	\$ 2,244.73	81.50

Table 9 - Average price and average surface of link or flat houses collected from a review of 19 borey real estate projects with link or flat houses for sale in Phnom Penh in September 2020.

Out of the 9 khans where borey real estate projects are currently developed (plus one in Kandal province, on the border with the city's administrative border), only Khan Mean Chey is considered as part of the city center. Mean Chey is the most expensive Khan and approximately \$2,300 USD per square meter or more than four times more expensive than the average price per square meter of a link or flat house in a borey located in Khan Dangkao, which is located 15 to 25 km from the city center. The nine other khans are either part of the first or second urban belt and offer less expensive prices per square meter. However, out of all the units available in these projects, none correspond to the price range defined as affordable in the policy. Annex 3 summarizes the main information about the nineteen projects surveyed (developer, project, location (including distance), type of unit, unit price, surface, number of floors, amenities, payment modalities, maintenance fee).

According to interviews with financial institutions, development companies and the government, housing units priced around 50,000 USD are considered affordable – cheaper than what has been on the market in the past 10 years, and units sell well. These projects are usually managed by smaller developers, generally not connected to the international real estate spheres. They might not match the legal and financial requirements set in the 7 policy and hence, might not be eligible for government concessions, as one interview suggested. However, the issue then is because they build – and sell – cheaper, these developments are also built with less quality, and potentially will raise

³³ See annex 3 for the list and project details of the 19 project surveyed.

futures issues in terms of sustainability. Finally, various interviews also mentioned developers not being interested in lowering their profits for “social purposes”³⁴.

Case studies: Two affordable housing projects developed under the 2017 policy

The two projects presented here below fit the eligibility criteria established by the policy to access the government concession package for building affordable housing. The first one has already been approved, and the second one’s approval is under review.

The Worldbridge homes project, Takmao Commune, Kandal province.

Worldbridge Homes (WBH) was set up specifically to develop affordable housing projects, it is part of the Worldbridge group’s property, real estate portfolio, which is a joint venture with the Singaporean group Oaxley. Worldbridge Homes was allotted with capital from the group and should reach a self-sustaining financial model, to the position whereby one project can generate enough revenue to develop a second one.

The first project, located in Kandal province, about 20 km away from Phnom Penh along National Road 1, is nearly completed and a 2nd project is currently being scoped in Sihanoukville. The first project sits on 43 ha of land, purchased by the company. It required land fill and networks to be installed. 6 ha are reserved for a commercial zone (SME cluster in partnership with UNDP) and the rest is designed as mixed use: 2,400 one floor attached houses of various sizes (7*6m or 7*4m) with price ranging from \$25,000 to \$27,500 with a strip of buildings meant for large shops and a school.

The construction was supervised by a Singaporean engineering company. The developer stressed that all the design criteria comply with international building standards. A Malaysian company was hired to build on site an interlocked bricks factory for the site construction, which according to the developer, is a high quality construction material offering good thermal insulation. The Ministry of Land Management is reported to closely monitor the construction.

The developer directly manages sales: all income groups are welcomed to purchase. However, sales are limited to one unit per person. Based on current sales (nearly 25% in March 2020), almost a quarter of buyers were civil servants. A partnership was established with Phnom Penh Commercial Bank: the sales team handles the financial assessment pre-scanning and administrative work, and monitors repayment for the first year, after which the loan management is returned to the bank.



Image 3 - WorldBridge Homes’ affordable housing project in Kandal – March 2020.

³⁴ This was suggested by different stakeholders during interviews.

Thanks to reduced administrative and management costs for the bank, this allowed them to slightly reduce their interest rate, from the commonly offered 8% on the market to 7.8% for clients purchasing a unit within the project, and tenor is offered up to 20 years, when the industry average is 15 years. Upon completion of payments, home owners should receive a hard title for their newly acquired property.

The Arakawa Residences, Teuk Thla Commune, Phnom Penh.

The Arakawa residences project sits on 1.4 hectare of land along the Russian boulevard. Handed over to the company by the Government for the initial temporary relocation of residents of the since destroyed White building³⁵, the project plans for 2,960 apartment units, completed by 2022. The smallest units start at \$30,500 USD (28 m² on 2nd floor). The largest units (47 m² / 2 bedrooms) range from \$62,000 USD (2nd floor) up to \$74,000 USD (last floor w/ open view). The ground floor will welcome a market and car parking lot (500 cars) and the 1st floor is reserved for a motorcycle parking lot.

Japanese consultants are in charge of construction monitoring, and most construction material are imported from Thailand, China and Korea, all meeting international construction standards. The Ministry of Land Management is also involved in the construction monitoring.

Buyers are limited to one unit per person and cannot resell the property before 2 years. Based on sales of the first phase (1680 units), most buyers are small business owners from the countryside, teachers, professors and students.

In terms of financial conditions, the company has not developed any specific partnerships with a bank. They do, however, offer payment installments for up to 35% of the unit price, which can be paid without interest in maximum 36 months. The remaining 65% must be paid in full upon purchase.

³⁵ Initially, the company had set out to demolish and reconstruct the White Building with an additional 4 floors (for cost recovery). The 492 families were supposed to move to this temporary location site for four years – time needed for the demolition / reconstruction – and would eventually get their initial property surface back with a matching ownership title. In the end, families chose to be bought out, and the project was called off, leading to the destruction of the iconic building. The Arakawa company eventually sold the land, which is now planned with the construction of the 3rd Naga World Casino.





Image 4 - Arakawa residences – Teuk Thla Commune, Phnom Penh, 2020. Construction work on the 1st phase. Photo taken from Arakawa Residences Facebook page

Conclusion

Both developer stress the importance of community life - green spaces and retail have been planned for in both projects – and the importance of construction quality, seemingly guaranteed by foreign expertise from Singapore and Japan. Interestingly, this expertise is mobilized through the companies’ internal networks, the same consultants having worked on other, high-end, real estate projects.

If both have equally pointed out offering helpful financial modalities of purchase, only one works in partnership with a bank, which demonstrates a first effort in lowering the cost of loans for buyers.

Both limit the purchase of units to one per person – however, it was reported that some families bought multiple units in the name of different family members. Finally, the absence of income screening during the purchasing assessment – which would normally set upper income limits for purchasing units – can lead to assumptions this real estate offer has been or will be captured by higher income groups. These projects, nonetheless, offer a starting point for future iterations and variations of market-based affordable housing projects in Phnom Penh.

3.3.2 How affordable is the housing market today in Phnom Penh today?

Despite the absence of any database on the total number of units being constructed and delivered every year, and their price range, a general observation of construction activity in the capital can lead one to assume that condominiums and boreys developed by large, internationally owned real estate groups are currently producing the majority of units. Based on unit sales prices, only the richest 20% of the population, or foreign buyers ³⁶, can afford to buy such units (green highlights in the table below).

³⁶ The 2010 Law on the provision of co-ownership rights stipulates that foreigners cannot buy the ground floor and are limited to owning a maximum of 70% of all units in developments. This applies to constructions built after 2010 only.

Small and medium size (SME) developers are gradually investing a more “affordable” housing segment, with units in lower quality boreys, are starting to sell around \$34,000 USD. These types of real estate products become affordable to the fourth quintile of the population, depending on household capacity of purchase. Though some of these developments raise questions on the quality of infrastructure networks and housing construction. This could eventually lead to increased maintenance and repair costs in the medium- to long-term, and exposing owners to increased financial risk, or, exposing the asset to housing deterioration and risk of development turning into a slum. Despite these possible risks, these types of houses offer an interesting alternative to luxury real estate which have been developed in the past decade and largely unavailable to Phnom Penh residents. With proper support, both in terms of monitoring, but also possibly thanks to sustainable and innovative finance, partnerships could be developed with SME developers to develop a more robust and sustainable housing supply chain. This could lead to significant and noticeable housing quality improvements in new developments and could grow the market to offer more sustainable, energy efficient design and construction.

	Q1	Q2	Q3	Q4	Q5
Average monthly income per cap	\$ 51.46	\$ 97.32	\$ 140.24	\$192.93	\$ 365.61
HH - 5 P p.HH	\$ 3,087.80	\$ 5,839.02	\$ 8,414.63	\$ 11,575.61	\$ 21,936.59
If housing represents 3 times annual HH income	\$ 9,263.41	\$ 17,517.07	\$ 25,243.90	\$ 34,726.83	\$65,809.76
If housing represents 3.5 times annual HH income	\$ 10,807.32	\$ 20,436.59	\$ 29,451.22	\$ 40,514.63	\$ 76,778.05
If housing represents 4 times annual HH income	\$ 12,351.22	\$ 23,356.10	\$ 33,658.54	\$ 46,302.44	\$87,746.34

Table 10 - Estimated price of an affordable housing unit based on the average annual household income per quintile groups.

Switching from quintiles to households’ estimated annual income based on its composition illustrates differently the same phenomenon (see table X below). For instance, a household composed of two income earners making between 500 and 1000 USD per month will consider buying an “affordably priced” 30 m2 condominium unit affordable. However, in order to purchase a link house in a borey – priced on average at 126,000 USD – households should either be composed of three persons earning an average of 1500 USD per month or two people earning on average 2500 USD per month.

Monthly income per cap	Income groups (income per month)									
	< \$37.5 (<1.25/day)	< \$47.4 (<\$1.58/day)	< 60 USD (< \$2 per day)	190 USD Minimum wage	293 USD civil servant	501-1000 USD	1001-2000USD	2001-3000USD	3001-4000USD	4001 USD +
Annual income HH 1IE	\$ 1,350.00	\$ 1,706.40	\$ 2,160.00	\$ 6,840.00	\$10,548.00	\$ 27,000.00	\$ 54,000.00	\$ 90,000.00	\$126,000.00	\$162,000.00
Annual income HH 2IE	\$ 2,700.00	\$ 3,412.80	\$ 4,320.00	\$ 13,680.00	\$21,096.00	\$ 54,000.00	\$ 108,000.00	\$180,000.00	\$252,000.00	\$324,000.00
Annual income HH 3IE	\$ 4,050.00	\$ 5,119.20	\$ 6,480.00	\$ 20,520.00	\$31,644.00	\$ 81,000.00	\$ 162,000.00	\$270,000.00	\$378,000.00	\$486,000.00
Annual income HH 4IE+	\$ 5,400.00	\$ 6,825.60	\$ 8,640.00	\$ 27,360.00	\$42,192.00	\$108,000.00	\$ 216,000.00	\$360,000.00	\$504,000.00	\$648,000.00

Table 11 - Affordability matrix based on household composition and average annual income.



If the affordable housing projects developed under the 2017 policy offer interesting models for developing an offer of housing units priced around 30,000 USD. However, as one government official admitted, no current solutions exist within the market for households who cannot buy at that price.

What impacts has the COVID-19 crisis brought to the housing and rental markets in Phnom Penh?

No specific trend in the market have clearly emerged as being linked to the ongoing COVID-19 crisis so far. Some market insiders suggested the prices of land and real estate were on-stand by, but not decreasing, and seemed quite optimistic as to the market rebound in the next quarters. This remains to be observed through concrete data and cannot be further commented at this point.

The COVID-19 crisis did have some consequences on pushing modest to poor families out of Phnom Penh: having lost revenue or their job, many headed back to the province because in the incapacity of affording the living costs of the capital anymore. However, despite this being an observable fact at the height of the crisis (March to April), people started to come back to the capital as activities gradually picked up. This remains anecdotal, as research and corroborating data should be conducted to further understand the consequences of the crisis on the city's population and housing.

3.4 Non-market housing projects in Phnom Penh

Given the state of the real estate market (see previous sub-section), many stakeholders understand the necessity to develop alternative housing solutions compared to a traditional market based approach. Despite these efforts remaining relatively isolated in time and place, a selection of four projects are presented below to better understand challenges and opportunities to scale.

3.4.1 The Boeung Tumpun communities slum upgrading (2016-2019)

Developed by the Room Studio as a component of I-NGO People In Need's Human Rights based spatial planning project, supported by the European Union, the Boeng Tumpun slum upgrading project proposed the upgrade of two Urban Poor Settlement communities located in the north and south-west of Boeng Tumpun lake, in the south of the city. A vast zone around the lake was allocated to ING Holdings a couple years ago for the construction of a satellite city, in which the lake would be reduced to one third of its current size³⁷. Communities living around the lake without any official recognition are currently under threat of eviction.

Through a participatory approach, both architectural plans for housing options and urban planning options to upgrade the neighborhoods were developed. Designed to meet the community's needs

³⁷ The ING City master plan is available on the developers' website: <http://www.ing-holdings.com/overproject>



and budget constraints while considering the environment quality, both in terms of security and environment, and also access to construction materials and local climatic conditions, 397 houses with flexible space usage, adjusted to local building traditions and conditions, were designed. The cheapest housing option consists in an unfinished house structure priced at \$5,600 USD. The walls remain to be built by the house owners. This offers an interesting option to bring down the housing unit prices for the poorer households to be able to purchase a quality house in terms of structure. A complete one story house is estimated to cost around \$8,200 USD.



Image 5 - A housing base, approx. 8,200 USD. The option comprises the structure, roofing, kitchen, and the clean and waste water systems © The Room Studio.



Image 6 - Finished one story house - total cost: approx. 8,200 USD - © The Room Studio

A two-story house was also imagined for families with more purchasing capacity. If these housing designs offer the first-of-a-kind solutions for housing units for the poorest communities, the suggested price range accounts only for the housing construction: much more remains to be invested both by the public authorities and communities for the construction of the community infrastructure such as roads, drainage, green spaces, etc. The project's implementation relied on a central parameter: the retrocession of the land where households lived from the State to the communities. However, the Government was in the incapacity of retroceding the land since it had already granted it to others. The I-NGO suggested to re-adapt the designs to another site if the government could grant another plot of land for communities to relocate, but the Government did not follow up.



Image 7 - A row of houses designed under the Human Rights based spatial planning project for the Boeng Tunmpun on-site upgrading plan © The Room Studio



3.4.2 Habitat Improvement for the Poor Communities in Phnom Penh (2018-2021)

Developed by I-NGO Planete Enfants et Développement, the Habitat Improvement for the Poor Communities in Phnom Penh is currently under implementation and supported by the French Development Agency (AFD) and the French-based Foundation Abbé Pierre.

Through the development of two different approaches, it aims at improving the housing security and quality of the most degraded housing units located in the Urban Poor Settlements of Chbar Ampov, along the the Tonle Sap river. The first option is a renovation kit: up to \$350 USD of renovation are conducted to ensure the house's solidity and sturdiness. The second option, currently under development, will be to support the construction of a new house priced between \$3,500 and \$5,000 USD.

In both cases, households are expected to participate financially. To ensure financial participation is both accessible to the target group and done in a way to allow borrowers to make an informed decision about financial risk, a tailor-made financial product was co-developed with MFI Chamroeun. Households who are deemed eligible can borrow from 100,000 to 800,000 riels (approximately \$100 to \$200 USD) at a monthly interest rate of 1.5% (with an opening 2% processing fee). Tenor ranges from 3 to 12 months, and the repayment process is supported and monitored by the village leader and a MFI loan officer. Loans can be allocated to groups or individually, in which case a guarantor is needed. This system allows to waiver the need of any collateral. Defaulting loans are covered through a provision in the agreement: the I-NGO will cover up to 50% of the amount of defaulting loans, the MFI accepting to take in the potential loss of the remaining. These small loans correspond to the participation of the house repair kit, while discussions are still on-going to establish modalities for a slightly larger loan allowing for eligible households to borrow more to support the purchase of a new house.

Given the small scale of the project, the I-NGO has opted for ignoring the issue of land status, instead working closely with village and commune authorities: if the authorisation is given by the commune, then the renovation or construction can take place.

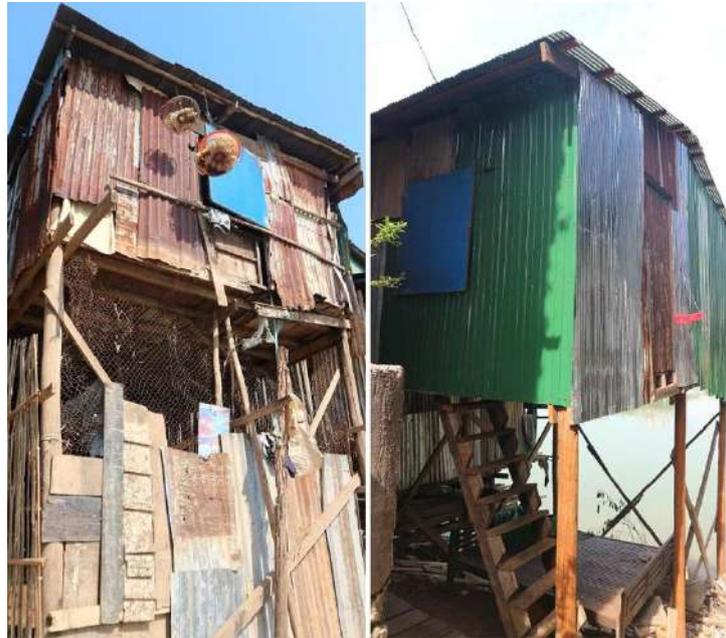


Image 8 - A house before and after renovation thanks to the house renovation kits supported by the PED led project (c) PED

Since the launch of the project in 2018, 88 households have benefited from the repair of their house. 49 households took out a loan to cover for the co-financing. If the scale of the project can be considered very negligible compared to the needs for housing discussed previously, it offers an interesting model to consider for scale up. More is discussed on these options in section 7.

3.4.3 The Borei Keila onsite upgrading land sharing project (2003-2009)

The Borei Keila on-site upgrading project is the only land sharing project which was ever finalized in the Cambodian capital. Following the adoption of the 2003 Social Land Concession policy, the government set out to implement four on-site land sharing upgrading projects for Urban Poor Communities. If the three other projects finally capsized for multiple reasons, the Borei Keila project finally managed to become a reality – despite many problems occurring in the process – and presents today an alternative model.

The land sharing pilot project was designed to be financed through cross-subsidies from commercial development, with housing allocated for free to beneficiaries as part of the Royal Government's social land concession policy. In 2003, the Phanimex construction company was granted a total of 4.6 hectares in the city center, where the Borei Keila Urban Poor Settlement (UPS) stood: 2 hectares of the concession would be used for construction of new housing for the land occupants, and 2.6 hectares of the concession would be granted to the company for commercial development. Initially, 10 buildings were planned for housing around 3,000 families from the UPS. Eventually, by 2008, eight buildings had been built and the company said it has run out of money to complete the project, leaving more than 200 families without any adequate housing alternatives. In addition to this major scandal, many criticized the attribution of housing units, which is have said to have taken place in

obscure manners. Despite the many issues encountered during the project development, a recent household survey in the Borei Keila project houses demonstrated that over two-thirds of the current population are actually the initial residents³⁸, demonstrating satisfaction both at the quality of the housing units themselves and its quality insertion in the city's urban fabric, guaranteeing proximity to jobs and services.



Image 9 - Borei Keila apartments in 2017 (c) Siv Channa, Cambodia Daily.

3.4.4 The Stung Meanchey onsite upgrading project (2018-2021)

The Stung Meanchey onsite upgrading project is part of a larger country-wide project aiming at enhancing the capacities of sub-national authorities in urban planning and land management. Funded by the European Union (EU) and managed by the Association International des Maires Francophones (AIMF), activities are co-implemented by Phnom Penh Capital Administration (PPCA) and the Association of Sub-National Authorities of Cambodia (ASAC).

In 2018, PPCA initiated renovation works of the Stung Meanchey canal, as part of the City's Drainage improvement plans. An Urban Poor Settlement consisting of 570 households had developed on stilt housing above the canal. With support from the mechanisms developed by Circular 3, households agreed to on-site relocation: the embankment of the canal would allow to create enough 4 by 6 meters' land plots along the canal for each household to receive one upon completion of the canal's renovation. Plots were allocated through lucky draw.

A temporary shelter village was built under the Stung Meanchey cross-over bridge, allowing to house temporarily the UPS residents, the time for the construction works and the plot allocation to happen. The works were divided in four phases, corresponding to relocation phases. After

³⁸ 2019 PED Evaluation of the Borei Keila project.

completion of the first phase, residents from the 1st section of the UPS would be attributed a land plot with its corresponding land title, and equipped with water and electricity arrivals, and residents from the second section would move into the temporary housing to allow phase 2 of construction works to start, and so on. However, the canal renovation project hadn't planned on how to support local authorities and communities in developing this new "official" neighborhood, after allocation of land plots. This project allowed PPCA to set up a series of specific activities to support the both the Commune Authority and the community in the process of developing a new upgraded neighborhood. A technical support team was set up within PPCA, composed of young Cambodian architects, who were tasked with supporting community members to build quality housing as well as designing public community spaces for the neighborhood, including a community center. A construction materials' bank is also planned in order to support the poorest families with the construction of their house.



Image 10 – On the left: housing model suggested for development, taking into account land plot sizes and households' available income. On the right: a suggestion for discussion with the community for developing a vegetable garden on top of the canal, thanks to a system of removable coverage. © PPCA.

3.5 Conclusions

Evidence has demonstrated that ownership is highly inaccessible for the bottom end of the housing ladder and relatively inaccessible for at least 60% of the city's population. This questions the developers' strategies and visions and highlights the urgency to reposition housing for its usage value and not exclusively, as it seems to be currently, for its market value.

The current economic contradiction is, despite the financial sector in Cambodia being less developed compared to developed economies, we are witnessing the housing market more related and integrated with developed economies and global flows of financial capital. This is no more evident than in the high-rise condominium market. As a result, the housing market is predominately driven by investor and financial motives rather than affordability, sustainability and livability.

New innovative affordable housing models and financial tools are urgently needed in order to address both needs of households for decent housing and needs of the city to ensure sound sustainable and inclusive development and avoid any possible "re-slumification" of sections of the city. The following sections explores the financial and sustainable aspects and specificities of affordable housing.

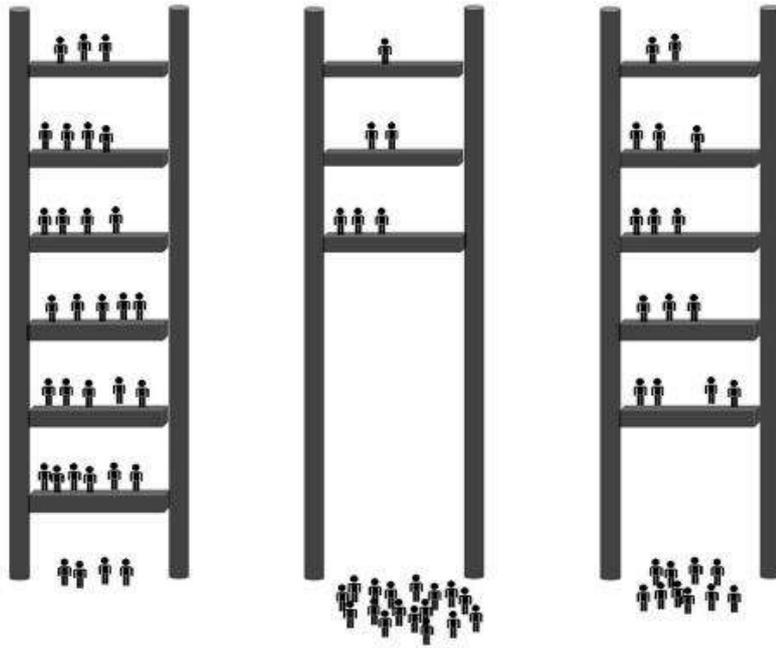


Image 11 - In Phnom Penh today, many steps of the housing ladder seem to be missing, excluding de facto many from accessing affordable and decent housing.

4 DEFINING THE AFFORDABLE HOUSING CONTINUUM IN PHNOM PENH

4.1 The housing continuum – a brief definition

Considering housing as a continuum, or an ecosystem, allows to clearly understand the interlinkages between each type of housing available – or currently unavailable – in a given city or within a community. This comprehensive approach allows to better identify what type of housing is needed for each socio-economic situation households can face.

If one type of housing is lacking or its offer is underdeveloped, it will most likely negatively affect other parts of the ecosystem. More generally, a dysfunctional housing ecosystem will negatively impact both households well-being and a city’s capacity to be sustainable.



Image 12 – Defining housing continuums.

A typical housing continuum spans from homelessness to market-based rental and home ownership. Housing types in between include various categories which are always supported in some way either by public authorities (local and/or national government funding or housing agencies), and non-for-profit organizations. Support can come in various forms, from providing specific services – such as emergency shelter for the homeless, support for housing access after an eviction, temporary (or transitional) housing for women and youth victims of violence, inmates in reinsertion – or directly supporting in the provision of a housing stock which is deemed not profitable enough by the market. The NGO sector in various countries can also support communities in developing affordably priced housing outside of market dynamics.

Social or public housing are usually found across the categories of community housing, affordable rental and affordable homeownership, and are possible thanks to some form of subsidy, either at the development stage of housing – which would translate into reduced development costs, or at the “inhabiting” stage – households’ rent or purchase of a home being supported by various financial tools, from direct subsidies to credit enhancing tools to increase lending to lower-income groups and boost financial inclusion.

Market rental usually means that rent rates are determined by the offer and demand for rental at a point in time. Rent is considered affordable when it doesn’t exceed 30% of the household’s income. However, in many cities around the world, rents can represent up to 50% of income, putting households at risk of eviction in case of income loss. In some countries, such as France, households corresponding to a set of social criteria can benefit of a direct state subsidy to contribute making market value rentals more affordable.

Finally, homeownership access through the market implies households are in capacity to access and repay a conventional loan without subsidies or assistance. The price of housing is often determined by different factors, like location, available local amenities, local schools, and overall area desirability, and are left to market fluctuations.

Overall, when housing is affordable, it is considered to have lasting positive impact on the health, income, and overall well-being of individuals and families. The responsibility of providing housing cannot, and is not in the vast majority of cities worldwide, left to the market alone. In this perspective, the situation in Phnom Penh appears very unique: the provision of housing has always, in the past century, been left to the private sector³⁹. The 2017 Affordable housing policy defines the first public concessions for developing housing priced from \$15,000 to \$30,000 USD. However, the policy is rather restrictive in its selection criteria (see section 2.2), and passive on making any significant reforms to the current market.

In the following sub-sections, we will take a closer look at the current state of the housing stock in Phnom Penh as well as what types of housing constitute the housing continuum in Phnom Penh. This deep dive into the specifics of housing in the capital will allow us to attempt to define what type of housing and how many units of each are missing in the housing continuum. In section 4, we will take a more detailed look at the housing ecosystem stakeholders, and how they can contribute to address the affordable housing priorities in Phnom Penh.

4.2 The state of the housing stock in Phnom Penh

At the basis of affordable housing is the notion of housing being adequate, both in terms of access to services and construction quality. If adequacy of housing in terms of access to services in Phnom Penh is relatively complex to evaluate, the adequacy of the existing housing stock in Phnom Penh can be assessed through the quality and size of buildings. Observing the legal status of the existing housing stock also allow us to better understand the current dynamics in the housing ecosystem in Phnom Penh.

4.2.1 Housing characteristics in Phnom Penh

Size of housing units per household

Between 2011 and 2017, the average floor space a housing unit in Phnom Penh has dropped from 65 m² to less than 53 m², losing more than 1 m² per year. In parallel, the average floor space per person decreased from 13 m² in 2010 to 10.2 m² in 2017. This remains well above the internationally accepted standards fixing squalor linked to overpopulation at below four square meters per person. However, this data is a mean average, and most likely hides vast disparities in available living surfaces amongst income groups.

³⁹ This started under the French protectorate and continued after the country's independence. The Creation of a Housing Department was mentioned in a 1972 UNDP study on housing in Cambodia – but all efforts in this direction were cancelled because on the war (1975-1989).

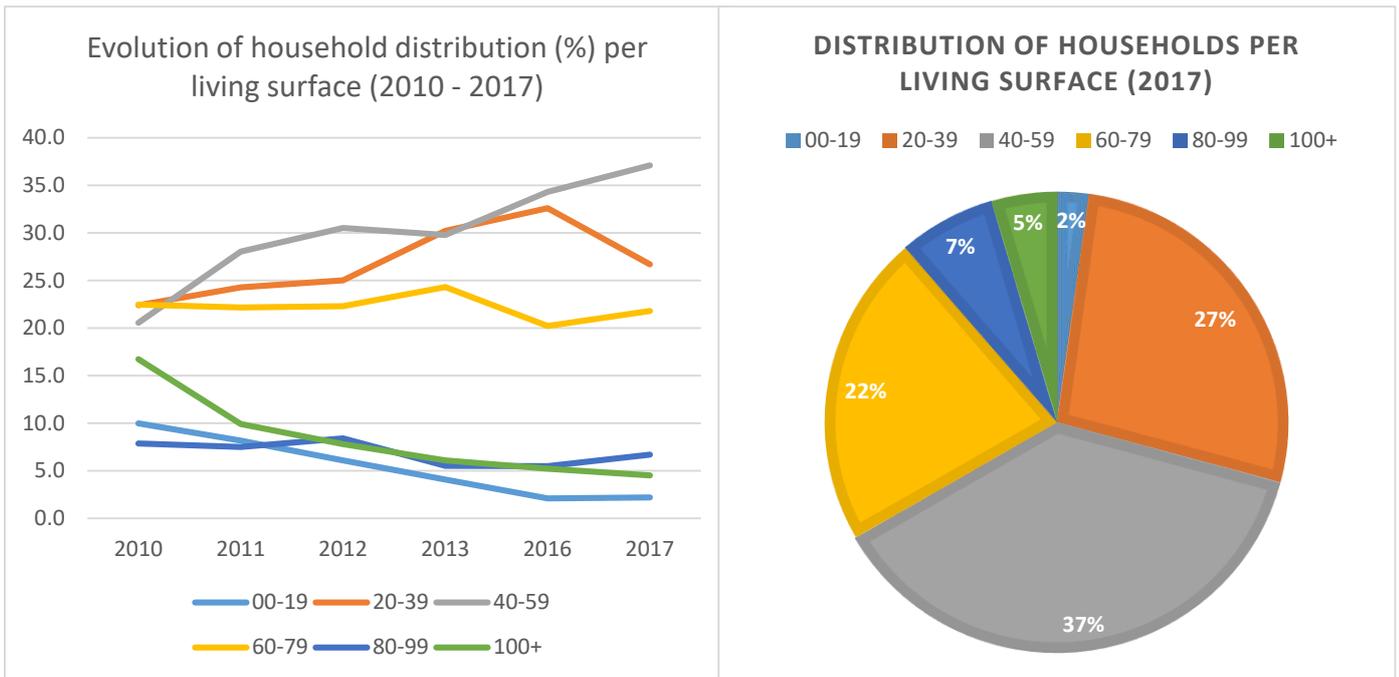


Figure 14 - Evolution of the proportion of households (%) per living surface.

Figure 15 - Distribution of households (%) per living surface in Phnom Penh in 2017

On a positive note, over the past five years, the proportion of households living in more than 80 square meters, as well as the proportion of households living in less than 19 square meters have decreased, and the number of households living in 20 to 39 m² and 40 to 59 m² homes have increased (+10.2% and +13.8% respectively).

This can be a reflection of the extension of the city's administrative borders to include surrounding districts, generally composed of lower income groups, and hence more modest housing. This can also point to the modification of the housing offer, moving away from a luxury niche – which could be considered as 80 m² and over – for housing products accessible to a larger number of urban dwellers and the emerging middle class.

Currently, 2.1% of households in the city live in less than 19 m², representing slightly more than 8,000 households. One fifth of households live in 60 to 79 m², and two thirds of households live respectively in spaces of 20 to 39 m² (32.6%) and 40 to 59 square meters (34.4%).

Housing quality: permanent (vs) impermanent construction materials.

In addition to the space available for households to live, the adequacy of housing can be assessed based on the quality and sustainability of the construction, which can be characterized by the sturdiness, durability and use of green materials.

The quality of walls, for example, has slightly improved from 2011 to 2017 (+0.23% in use of permanent material). There has been a notional decrease (-0.33%) in use of permanent materials for roofing between 2011 and 2017, with a slight increase in use of thatch and salvaged materials (+1%). These minor trends can also be a reflection of the incorporation of outskirts districts where housing is of lesser quality. It may also hint at the increase in extremely poor households: ID poor data

highlights that between 2016 and 2018, the number households with ID-poor cards increased from 5 % to 7% in Phnom Penh⁴⁰. However, no ID-poor data is available for Phnom Penh prior 2016.

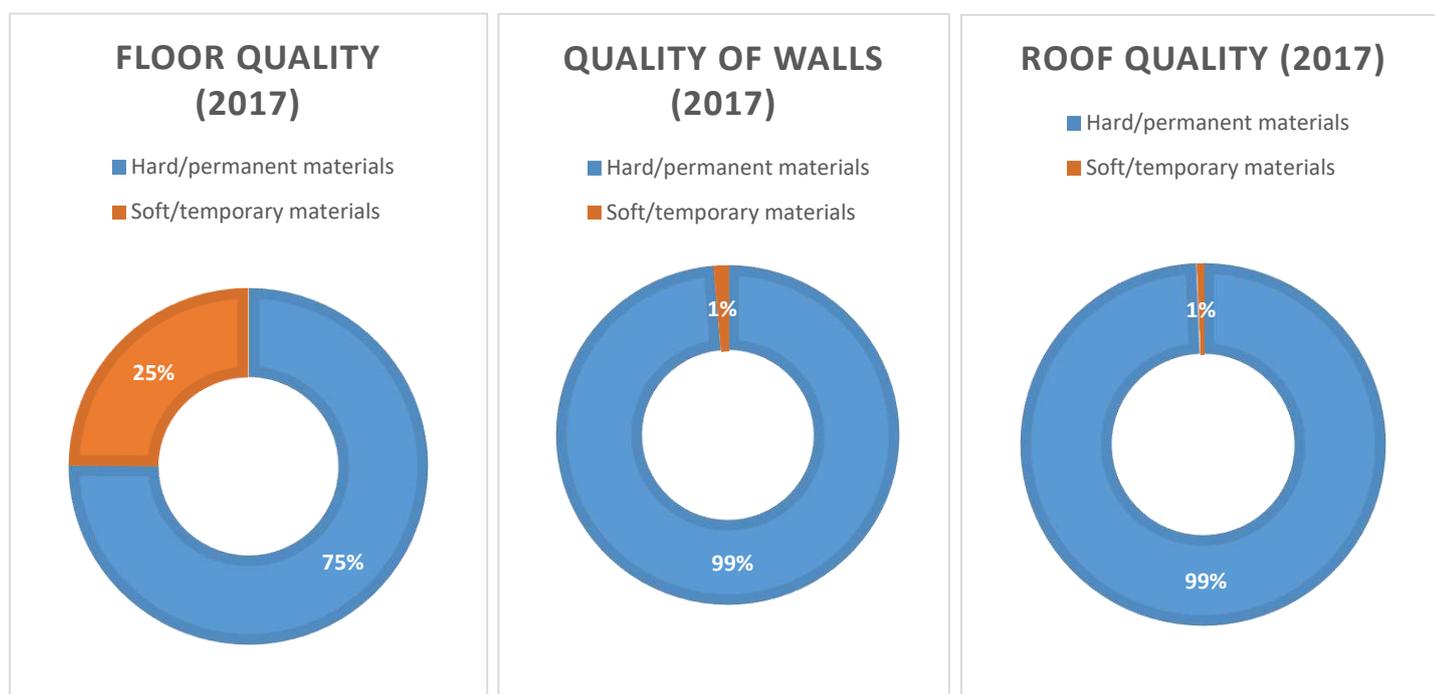


Figure 16 - Quality of housing construction based on building materials in 2017.

As of 2017, floor quality appears to be much lower than roofs and walls (25% built with temporary materials). Wood flooring accounts for 22% of all materials used - it is both used in traditional wooden houses and well as in less sturdy houses in poor settlements. While the aesthetic and climatic qualities of specific wood timbers used in construction in Cambodia are undeniable, more and more households will move to more modern types of housing, and away from traditional building materials. For instance, traditional wooden houses are bound to disappear, to be replaced by modern housing. Wooden houses are more expensive to build and maintain, they are generally unappealing to urban households because of their lack of modern amenities.

From this perspective, the semi-permanent or temporary quality of housing building material informs us of the overall quality – or lack of – of current housing stock in Phnom Penh. Based on the above data, we can consider that nearly 25% of the city’s population, or about 94,000 households, lived in 2017 in inadequate housing conditions. Considering the trend from 2016 to 2017 unchanged (+1.66% of construction with one item built in impermanent material), around 97,000 households in 2019 are in inadequate housing.

The Commune data base data from 2013 gives us another look into distribution of households per type of housing⁴¹. However, this cannot allow estimation of the number of inadequate houses. Apart from thatched roofs, the other housing categories can be considered acceptable if properly maintained over time. It is, however, noteworthy to mention two thirds of the city’s population in 2013 lived in detached housing.

⁴⁰ <https://mop.idpoor.gov.kh/reporting/builder>, accessed May 11, 2020

⁴¹ See annex X for an illustration of the different types of housing.

HOUSEHOLD DISTRIBUTION PER TYPE OF HOUSING (2013)

- Sum of # family living in thatched roof
- Sum of # family living in fibro-cement roof
- Sum of # families living with zinc or fibro roof less than <20 sheets (4*5 metres)
- Sum of # family living in tiled roof
- Sum of # families living in house with cement wall without concrete roof
- Sum of # family living in Villa house
- Sum of # families living in flats/apartments

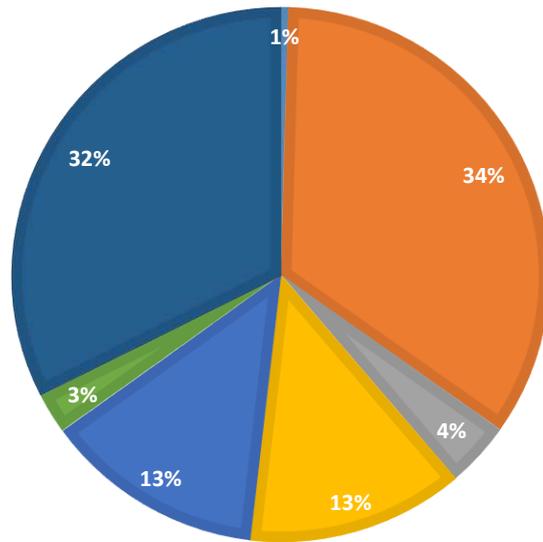


Figure 17- Distribution of households in Phnom Penh based on the typology of housing

Typology of housing and its geographical distribution in the city

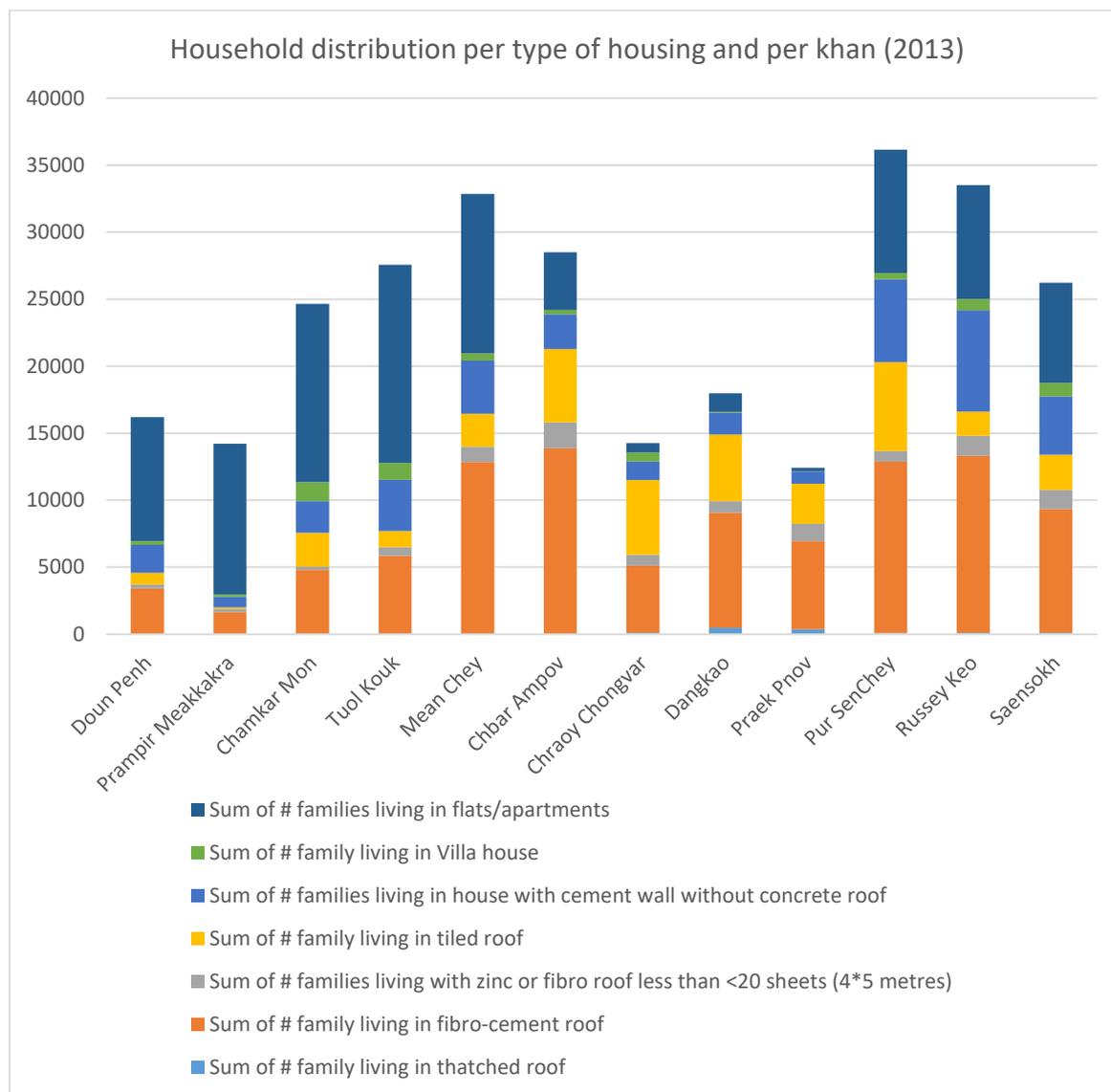


Figure 18 - Distribution of households per khan per type of housing.

Nearly one third of the population of the city lives in a fibro-cement roofed house, a proportion which is much lower in the five central khans (listed on the left of the graph). Conversely, the number of families living in flats is much higher in this zone. Many of these buildings in the city center were built before the war⁴², and due to lack of maintenance and proper renovation, some buildings are starting to literally fall apart⁴³. An exploratory study on the state of these historical collective buildings is currently under way⁴⁴. Preliminary findings estimate that two thirds, or around 14,000 units, are in state of squalor and require rapid intervention for upgrade and renovation.

⁴² Number of condominium units available in the city in 2013 were still relatively low, and only represent at the time a marginal number of apartment units.

⁴³ https://m.phnompenhpost.com/national/fear-collapse-central-pp-building?fbclid=IwAR0VgoDDIbe0kmOpeDpo5fZQoHNvXA6DZDv_cotFmiUXIaf7m3JhBjSRFAM

⁴⁴ S.Hun, E. Traub, 2020. Urban heritage and sustainability. Heritage preservation, urban renovation and sustainable development: the case of collective buildings (1863-1970) in Phnom Penh. AIMF.

4.2.2 Rental VS ownership.

Very high levels of ownership

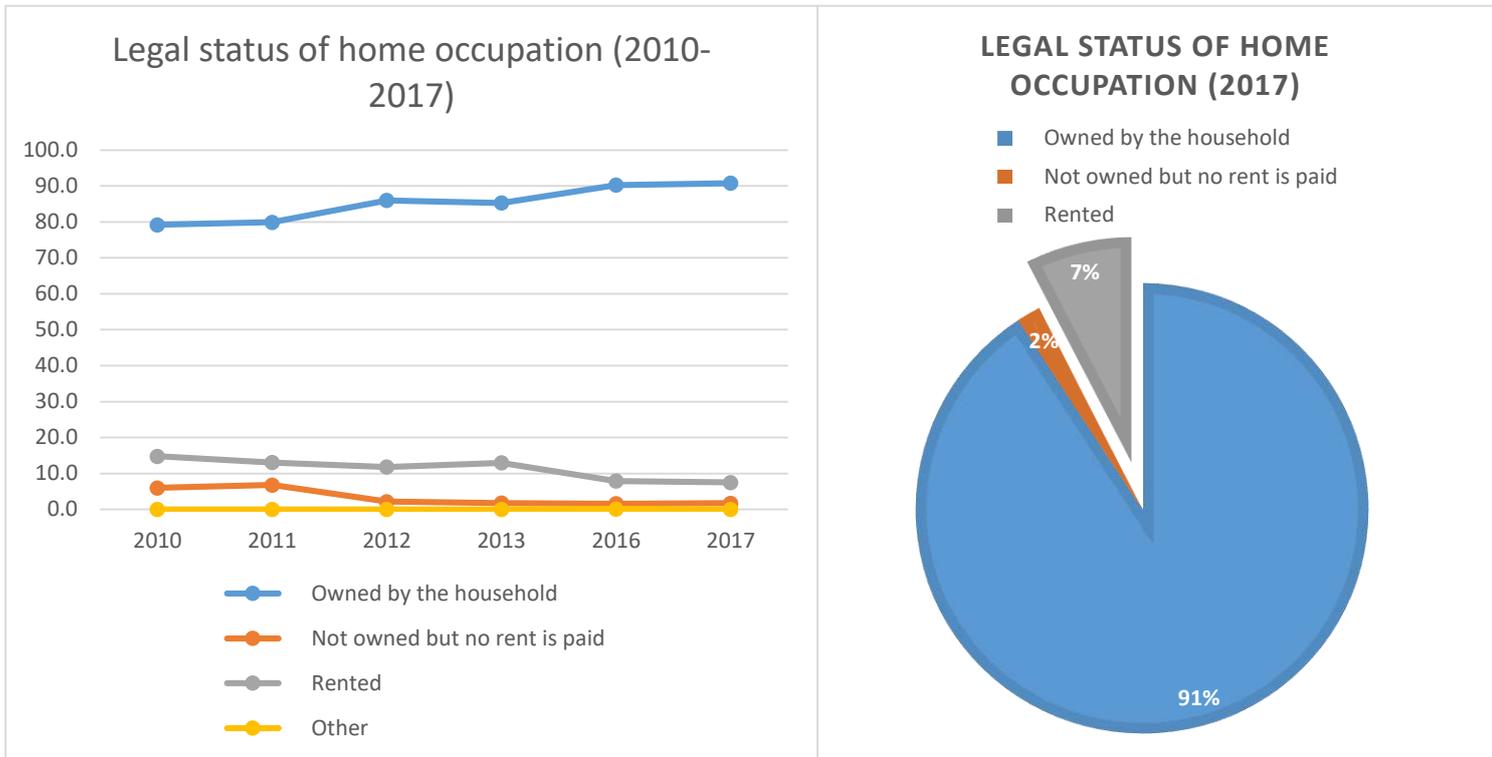


Figure 19 – Evolution of the legal status of home occupation from 2010 to 2017

Figure 20 – Legal status of home occupation (2017)

In 2017, an impressive 91% of households declared ownership of their home (figure 20 – right). This seems to be, at first glance, in contradiction with analysis of the current housing market, with a lack of affordable housing when compared to households' income (see section 3). However, this rather exceptional situation is correlated with the historic conditions of the redevelopment of Phnom Penh after the ousting of the Khmer Rouges by the Vietnamese army in 1979, when people who settled back in the capital were granted ownership through the 2001 Land law if households were able to prove occupancy prior to the adoption to the law are eligible to obtain hard titles (see section 1 for more details). However, the 2001 Land Law implementation has run into many difficulties and obstacles. During the Annual report conference of the Royal Government of Cambodia, H.E Chea Sophara, Minister of Land Management, announced that “the ministry has so far legalized a total of 5.1 million title deeds out of 7 million unofficial deeds, which is equal to about 73% of the whole title deeds in Cambodia.” He announced that all deeds would be regulated by 2021⁴⁵. Data specific to Phnom Penh is, however, unavailable. Many households in the city have a soft title – recognition of occupation rights by the Sangkat – but have not undertaken the necessary procedures to obtain the hard title of their property.

Renting in Phnom Penh

⁴⁵ <https://web.archive.org/web/20190330184020/https://www.construction-property.com/read-news-1701/>

Despite historical factors explaining high rates of ownership⁴⁶, the proportion of households renting in Phnom Penh has halved in seven years, dropping from almost 15% in 2011 to 7% in 2017. The drop in proportion, however, hides a rise in number of households renting between 2011 and 2013 (growing from around 41,000 to 47,000 in just three years). This number fell back to 30,000 households in 2016 and 2017. This decrease in renters may hint to the urban expansion into peri-urban areas of Phnom Penh, where households working in the first or second urban belt (as opposed to the central districts of the city) start to settle in the surrounding province of Kandal, where land and real estate price remain lower than in the city. It could also indicate the move of large factories outside of Phnom Penh⁴⁷, of which workers represent an important proportion of renters. Additionally, the low levels of legal security renters have – rental only falling under contractual agreements as defined by the Civil Code⁴⁸ – also most likely encourage households to buy as soon as possible. If the development of affordable rental housing is mentioned in the 2014 National Housing Policy, an implementation framework for improving rental rights and supporting the development of affordable rental projects is still lacking. Finally, another possible explanation for the decrease of renters over the past years relates to the decrease in the number of urban poor settlements, where rental play an important role as a first steppingstone for the modest and poor when arriving to the capital⁴⁹.

However, the analysis of household income (section 2) have highlighted how at least the poorest 20% of the population are not in financial position to purchase a home priced less than \$15,000 USD. From a construction and urban sustainability perspective, it does not appear possible at this stage to build adequate housing for less than \$15,000 USD without support (preferable land tariff, waived taxes, etc.) (see section 6 on Greening Affordable Housing). Additional options and housing solutions must be supported and created for the part of the population who do not, at a given time, meet the requirements to access homeownership.

4.3 What are the current and future needs in housing, and at what price?

Evidence unpacked until now suggests there are what could be qualified as three types of housing sub-ecosystems, or essentially three types of markets:

- One ecosystem would correspond to the more established, relatively secure Condo and Borey housing market, backed by international investors, developers and buyers belonging to the 25% richest income group (P76 to P100).
- A second ecosystem could correspond to a slowly emerging affordable homeownership ecosystem, which is still unstructured and still forming thanks to timid efforts from Government (2017 Policy and punctual access to land) and from big developers concerned with “giving back to the community” as well as smaller, less professional, developers. This ecosystem, despite its fragility, would cater to over half of the city’s population. From this perspective, stakeholders’ attention should focus on accompanying sound growth of this affordable homeownership ecosystem.
- Finally, a “highly affordable” housing ecosystem still remains to be structured for lower income groups (P25-P1). Solutions for these groups will have to include affordable rental, innovative design and construction and new forms of finance and investment into lower-income markets.

⁴⁶ After the fall of the Khmer Rouges, the Vietnamese-back Government handed out housing for free to returnees until there was no more. The 2001 Land Law also stipulated that if a household could prove a 5-year occupancy prior to 2001, they were eligible for ownership rights.

⁴⁷ To confirm.

⁴⁸ 2020 PED-PIN report on housing rights.

⁴⁹ 2014 STT report on rental in UPS





Figure 21- Distribution of households along the housing continuum based on their average annual income (presented in percentile groups) (2017).

In the next section, we suggest an estimated number of housing units to replace current inadequate units as well as provision for future housing needs brought about by urban growth by income groups.

4.3.1 Current needs

The data analyzed so far, summarized in the table below (table 12) allows us to make an attempt at estimating the current needs of housing units which should either be upgraded, renovated or replaced. Based on the hypothesis that all households who are in a financial position to renovate their house or move if living conditions are too inappropriate, we make the assumption that all these units must fall in the proportion of the population who cannot access the current housing market (60%).

Taking into account the proportion of housing with temporary construction material, adding the number of units in situation of squalor, we estimate that 81,000 housing units are in need of renovation or replacement. If these units should be replaced or flipped (purchased, renovated and put back on the market), they should be priced in a way to allow households with a similar purchasing power, that is units should be priced below \$30,000.



Type of housing (2013 CDB expect if noted otherwise)	# households	# housing units	Occupancy rate	# housing units in need of upgrade / replacement (1)
Thatched roof	1,291	975	1.32	66,302
House with zinc or fibro roof	97,758	88,764	1.10	
House with zinc or fibro roof less than <20 sheets (4*5 meters)	11,271	10,725	1.05	
House with tiled roof	37,194	33,920	1.10	
houses with cement wall without concrete roof	37,666	35,488	1.06	
Villa house (detached house)	7,015	6,772	1.04	
Flats / apartments	92,336	89,626	1.03	14,000
% of housing units with at least one element of temporary material (CSES 2017)	25%			
Total	284,531	266,270	1	80,802

Table 12 – Estimated number of affordable housing units needed currently in Phnom Penh.

(1) Estimation based on the ratio housing units with at least one element of temporary material (CSES 2017) / total number of housing units in Phnom Penh (2013 CDB).

4.3.2 Estimating future needs

JICA estimates the total population of Phnom Penh to reach nearly 2,9 million by 2035⁵⁰. Assuming that the average number of people per households will gradually reduce to 4 people per household over the next 15 years, by 2035, almost 320,000 more households will require housing.

	2019 (NIS)	2035 (JICA) (1)	2019 - 2035 growth
Total population	2,129,371	2,867,100	737,729
# Households	399,203	716,775	317,572
(1) Hypothesis that HH are composed of 4 people and not 5,3 as in 2019			

Table 13 – Projected population growth 2019 – 2035

⁵⁰ 2017 JICA Sanitation Master Plan



Considering the distribution of wealth remains the same as in 2017 and inflation remains steady, the needs in terms of units per pricing group is explained in the table below:

	Affordable housing price	# of additional units needed	%
P1 - P5	\$7,292.20	15,879	5%
P6 - P10	\$8,644.40	15,879	5%
P11 - P25	\$13,183.90	47,636	15%
P26 - P50	\$20,983.20	79,393	25%
P51-P75	\$32,259.50	79,393	25%
P76-P90	\$45,467.60	47,636	15%
P91-P95	\$59,520.70	15,879	5%
P95-100	\$67,030.20	15,879	5%
Total	Total	317,572	1

Table 14 - Distribution and numbers of housing units required per income groups (presented in percentiles). Based on the 2017 CSES database

50% of the newly developed housing stock should be priced between \$21,000 USD and \$45,000 USD to remain affordable to the largest group in demand, that is around 160,000 units. Offer for this segment can be activated through the mechanisms established by the 2017 Affordable housing policy. As seen before, the 20% richest are already catered by the current market. Solutions must be urgently developed to answer the current and future needs of the poorest 25% of the population: an additional 80,000 units priced below \$15,000 will be needed in the next 15 years.

Adding current (around 80,800 units) and future needs (240,000 units), **nearly 320,000 units priced below 33,000 USD are needed in the next 17 years to cater to the 60% of the population for whom the current housing market is not affordable.**

This should however be considered as a conservative estimation because of multiple factors which cannot at this point be integrated in the projection, such as the evolution of wealth production, its distribution among the population, fluctuations in rural immigration and other demographic and economic factors.

Given the current trend, the market alone cannot be expected to cater to this group, which encompasses varying income segments. Creative solutions must be developed. The following sections explore the potential of established and green finance mechanisms to attempt identifying possible leverage for catering to this group. The last section concludes the research with a deep dive in the ecosystem's stakeholders, allowing to highlight current bottlenecks and point out opportunities to create new solutions.



5 SUPPORTING THE AFFORDABLE HOUSING DEMAND THROUGH INCLUSIVE FINANCE.

Historically, housing provision in Cambodia has generally been left to the responsibility of the private sector. However, the exponential economic development of the country in the past thirty years, and more especially of the capital city, has brought about major challenges – including housing – that the private sector alone cannot tackle. The Cambodian Government has demonstrated already through a series of policy changes their understanding of the necessity to develop affordable housing. However, they revert the challenge back to the private sector, supporting them with incentives until now. Challenges around affordable housing are multiple – central to these challenges, however, is accessing finance. From this perspective, a more detailed look into the financial sector, its own resources and challenges, can suggest possible ways forward for Phnom Penh’s housing challenge.

5.1 Housing finance in Cambodia

5.1.1 Cambodia’s financial system

The quick adoption of market-based approaches started in the 1990’s and were enshrined by public market regulating institutions, such as the National Bank of Cambodia (NBC), which gradually organized financial operations in the country. Currently, the banking system in Cambodia consists of a large variety of financial institutions. Licenses are issued to institutions according to the type of services offered. Specialized banks for instance are specialized in one certain type of operations: they can either take deposits or issue credit, based on the license they have obtained with the NBC. Microfinance institutions (MFIs) are not permitted to accept deposits, unless they have obtained a separate license from the NBC after fulfilling certain conditions, including being in operation for at least three years and holding certain level of liquidity. Currently, only seven MFIs are licensed to take deposits. Finally, every banking institution must comply with minimum capital requirements⁵¹.

At the end of 2019, Cambodia’s banking system consisted of 47 commercial banks (17 local banks, 17 subsidiaries and 13 foreign branch banks), 15 specialized banks, 7 microfinance deposit-taking institutions, 76 microfinance non-deposit taking institutions, 245 rural credit institutions, 15 financial leasing companies, 4 third party processors, 21 payment service institutions, 1 credit bureau company, 6 representative offices, and 2,913 money changers⁵².

The banking and financial policies and systems have evolved to ensure the NBC, the Ministry of Economy and Finance (MEF) and the Security Exchange Commission of Cambodia (SECC) are working towards joint or coordinated supervision, commencing with information sharing. Continued evolution needs to occur to enable banks intending to conduct additional related financial services, such as securities or mortgage insurance business, is under one system; rather than the current system which requires banks to operate under separate entities and be governed by different authorities.

⁵¹ See annex 4 for more details.

⁵² National Bank of Cambodia, 2019



5.1.2 The current financial scene in Cambodia

A developing banking market

From 2010 to 2018, revenue of banks globally grew on average 4% per year, 6% per year for Asia Pacific countries and 21% per year for Cambodia, which would qualify it as one of the fastest growing rates in the world. This strong growth in banking revenue attracted many banks to operate in the country: 62 banks (commercial and specialized) were in operation in 2019.

However, 57% of market revenue is captured by the five leading banks. The next 20 account for 35% share of revenue, while below that, the bottom 35 banks account for just 8%.

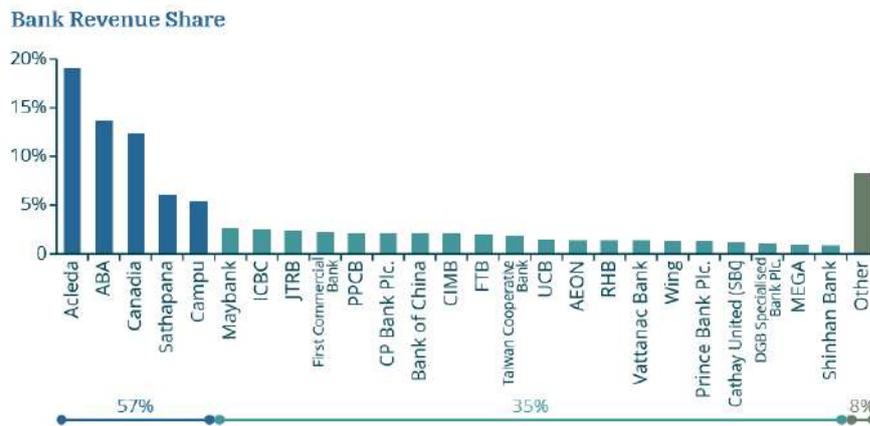


Figure 22 - Bank revenue share in 2019.

Growth in the banking sector is largely explained by the high growth of loans, which have increased between 18 to 24% per year in the past four years. Interest rates can be a driver in loan growth.

Return on equity (ROE), a key metric for banks, increased by 1.9 percentage points to 11.7% in 2019, with lower credit costs accounting for around 1.6 points of the increase. This means that banks can only support ~12% loan growth organically, without adding additional shareholder capital. If banks do not improve their ROE, they will be unable to fund the level of credit growth expected in Cambodia – 15 percent to 20 percent [per year] in order to rebound from the impacts of COVID-19⁵³. This may have negative short to medium impacts on the home loan market. For those banks that continue to under-perform they will need to assess their longer-term viability⁵⁴.”

⁵³ Pre-COVID estimates

⁵⁴ Ibid



Cambodia Bank Sector Revenue (US\$b)



Loans (US\$b)

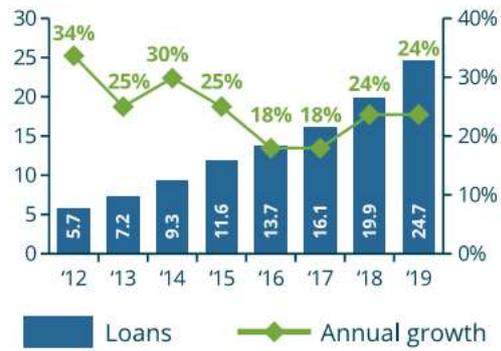


Figure 23 Bank sector revenue VS loan growth from 2012 to 2019. (Excerpt from Mekong Strategic Partners – Cambodian Bank sector review 2020).

Until recently, consumer lending has been the biggest driver of loan growth, principally retail mortgages. At the start of the decade, lending to consumers amounted to just under \$300m, by the end of last year it had increased to \$5.4b, an 18x increase or an average of 38% per annum.

Loans by Sector – loans to Consumers, Retail and Construction drove lending growth (US\$b)



Figure 24 - Total amounts of loans by sector (billion USD) in Cambodia in 2018 and 2019. (Excerpt from Mekong Strategic Partners – Cambodian Bank sector review 2020)



What roles can National Banks play in the housing sector?

The NBC performs the traditional role of a central bank, and all banking activities are under its exclusive jurisdiction. Its main functions are to:

1. conduct monetary policy;
2. act as the sole issuer of the national currency and as the supervisory authority of the banking and financial system, having the authority, inter alia, to grant operating licenses to banking and financial institutions; and
3. oversee the payments system.

From a historical perspective, KHR-denominated loans have been significantly higher than USD-denominated loans. However, over the last four years, the interest rate between KHR-denominated loans and USD-denominated loans continued to converge from 26.2% in 2015 to 10.5% in 2019. This convergence is due to NBC's regulation in 2016 stipulating all banks and MFIs to hold a minimum 10 per cent of their loan portfolio in riel. This push for more KHR-denominated loans have several benefits including:

- increased local currency in the market;
- improved lending terms for customers and;
- improved lending conditions those who earn income from riel.

One area where there could be change in the future is the potential for 'housing bonds' to assist with investment flow and pipeline development. The central bank plans for government issued bonds by 2023 and this could pave way for corporate bonds and eventually attract more institutional investors to the affordable housing space. The government is developing a road map over the medium term for a bond market and this may start to open up opportunities for affordable housing. Although it remains to be seen if this evolves into similar models like we see in the UK and Australia, where there is visible interest from housing associations to attract finance through bonds from institutional investors.

A system at risk?

The strong growth in loans is currently considered unsustainable: it is currently growing 1.5 to twice as fast as the country's GDP, when the global reference of a strong but sustainable growth would be loans growing only 15% faster than GDP.

The growth of the banking sector in Cambodia has led to the creation and installation of many banks. However, as seen in figure 22 above, five banks concentrate more than 50% of profits, leaving the many others to be considered as unsustainable in the long run. For this reason, the Cambodian banking is sector is considered overbanked and potentially unsustainable in current form.



An overbanked financial system indicates sub-optimal balance between competitiveness and soundness in the banking system. Indeed, a ‘knock-on’ effect is financial stability, including banks and financial institutions in excessive risk taking, limiting the scope for business diversification, and overburdening the banking system’s supervisory capacity⁵⁵. Unlike other markets and industries where competition drives innovation and efficiencies that benefit the customer, in the banking sector, by simply having more banks, it can worsen lending conditions for customers and expose customers to sub-optimal lending. For example, quality of loan books, supervision and transparency can decline. Furthermore, excessive competition to capture an already saturated market can pose risks to the health of the banking system. Lending is primarily conducted by a few large and more dominant banks and a large number of small banks. Foreign-owned banks are potential conduits of international best practice, and, in parallel, this can lead to excessive capital flows that can amplify macroeconomic and financial sector vulnerabilities.

There are 60 banks at the end of 2019, which is considered unsustainable due to revised minimum capital requirements⁵⁶. It’s predicted that minimum capital levels will be increased from \$75 million to \$150 million between 2023 – 2025, which should help drive consolidation in the sector.

Additionally, due to COVID-19, there are strong signs of slower loan growth, and an acceleration in deposit growth; and combined with the NBC’s reduction in reserve requirements (particularly for USD which fell from 12.5% to 7%) which is estimated in adding nearly \$1.5b to sector liquidity. While the slower loan growth will negatively impact profitability, higher liquidity is a major positive in terms of the health of the financial sector, and its ability to support the economy to rebound from COVID-19⁵⁷.

Finally, Cambodia’s financial system is highly dollarized, limiting its scope for absorbing external shocks and increasing its banks’ vulnerabilities to solvency and liquidity risks. Moreover, the banking system is both concentrated and fragmented, especially between urban and rural areas, posing risks to stability from a consumer lending perspective.

Connectivity to the international financial markets

Cambodian banks are well connected to global financial markets, notably through their foreign shareholders (National Bank of Cambodia, 2017). For instance, shareholders of ACLEDA, one of the most important Cambodian commercial banks, include the Sumitomo Mitsui Banking Corporation (SMBC, an important Japanese banking institution), COFIBRED (a financial subsidiary of an important French bank), ORIX corporation (a Japanese company providing services for diverse financial activities such as leasing, financing, investment, life insurance, banking, and real estate), and Triodos Bank (a Dutch bank), with its related investment funds. Their presence underlines the important integration of the bank into global financial markets, helped by hundreds of financial partners in— according to the bank—45 countries (ACLEDA, 2018⁵⁸).

⁵⁵ Unterberdoerster, O. (2014). "Chapter 4. Cambodia’s Banking Sector: Are More Banks Always Better?". In Cambodia: Entering a New Phase of Growth. USA: INTERNATIONAL MONETARY FUND.
doi: <https://doi.org/10.5089/9781475560787.071>

⁵⁶ Time for Consolidation: Cambodian Bank Sector Review, 2020, Mekong Strategic Partners, Cambodia

⁵⁷ Ibid

⁵⁸ ACLEDA . (2018). Annual report 2018 . Retrieved from https://www.acledabank.com.kh/kh/assets/pdf_zip/ACLEDA_AnnRept2018_large.zip



In return, part of the inflow of foreign capital is reinvested in local and international housing markets, not only through mortgages and loans but also through ACLEDA Properties, one of the bank's subsidiary companies specializing in real estate investments.

The high connectivity of the Cambodian banking system – commercial and specialized banks, but also its microfinance institutions – can be considered both as a constraint and an opportunity to develop housing finance options. Financial institutions are bound to their investors by securing a set amount of ROI, based on invested capital, restricting them in the development of innovative financial tools targeted at housing, with potentially lower levels of ROI than current ones. A strong international connectivity to the financial market can allow investors to support the national financial sector through experiences in other countries. Also, it could enable to attract other type of investors, for instance impact investors with interest in affordable housing. This latter option offers a high potential, which could be further explored by one or a group of affordable housing stakeholders in Cambodia.

5.1.3 Microfinance in Cambodia

Cambodia has seen rapid growth in financial inclusion through microfinance – it is one of the largest microfinance sectors in the world (top five) in terms of borrowers per capita and average borrowing size per capita (Gonzalez 2010)⁵⁹.

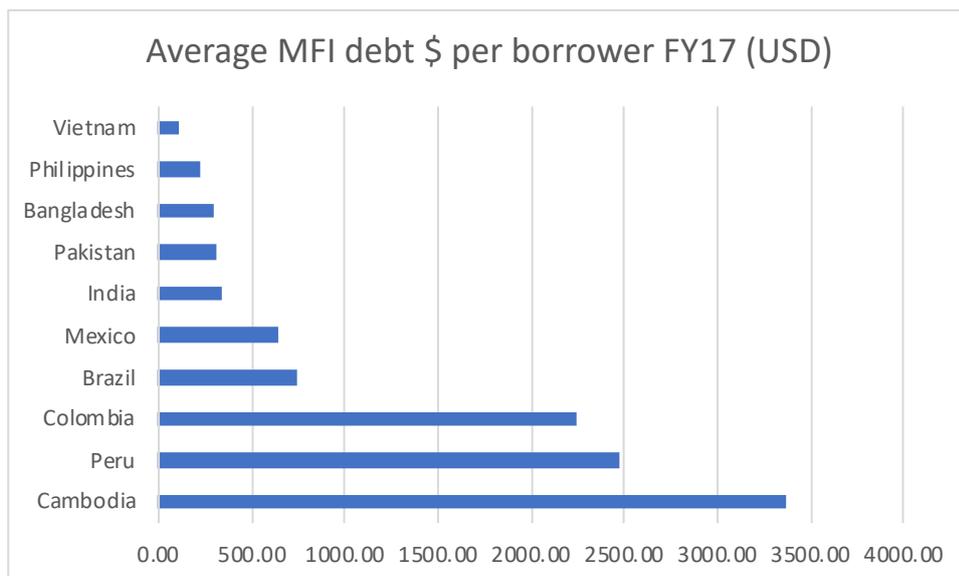


Figure 25 Average MFI debt \$ per borrower FY17 (USD), Reference: "Microfinance Barometer 2018", Convergences, p. 2

The official MFI loan portfolio in Cambodia grew from about \$300 million in 2009 to \$1.3 billion in 2013, and reached around \$5.4 billion at the end of 2018. With the inclusion of the "small loan" portfolios of ACLEDA and Sathapana Bank, two commercial banks that are involved in the microloan market, the total microloan portfolio rises to \$8 billion. This \$8 billion in outstanding loans is spread across 2.38 million borrowers. an amount equal to about one-third of the country's 2018 gross domestic product (GDP). The average microloan debt per borrower in Cambodia was around \$3,370, the highest average amount in the world. That number is close to the entire median disposable income for rural Cambodian households in 2017 (about \$3,900) and is more than double the 2017

⁵⁹ Gonzalez, Adrian. (2010). "Is Microfinance Growing Too Fast." in MIX Data Brief No. 5: Microfinance Information Exchange



GDP per capita (\$1,427). Credit is growing by 40% a year⁶⁰. There are some 160,000 branches of microfinance institutions around the country - one for almost every square kilometer of Cambodian territory.

“Cambodia is second only to India in terms of global investment into the microfinance sector. The rise of Cambodia’s microfinance industry is part of a much larger wave of financialization in the global South, in which development institutions, multinational banks, and private investment firms over the last two decades have aimed to include the “bottom billion” poorest people into formal financial markets (Green et al, p.130, 2019)⁶¹”.

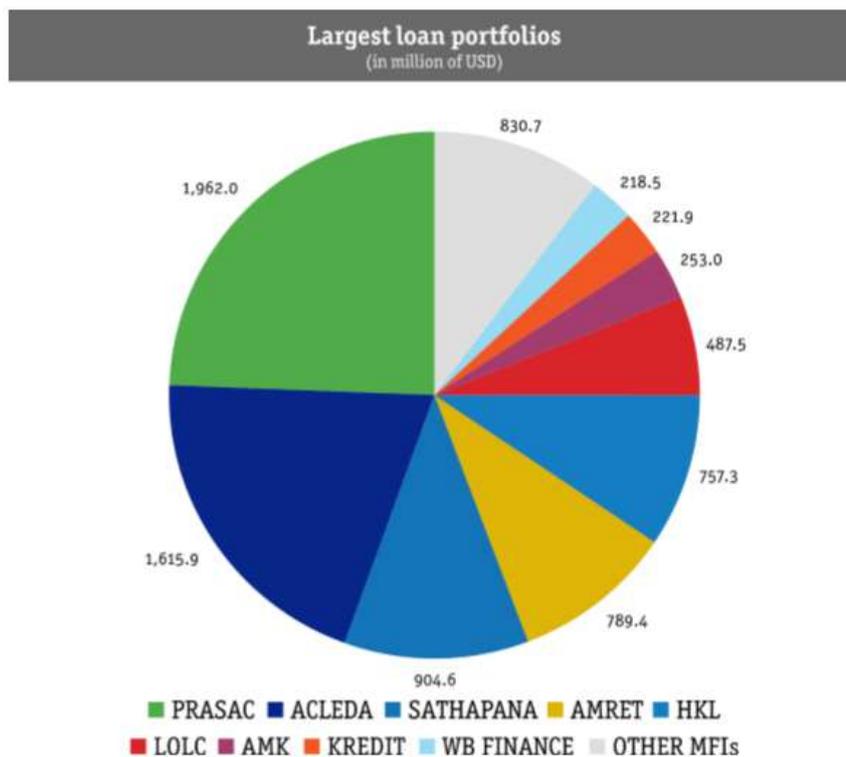


Figure 26 - National MFI loan portfolio distribution across the nine largest and other MFIs. (Excepted from the 2019 STT/Licadho Collateral Damage report.)

The microfinance boom has brought many benefits. A key tool for financial inclusion, it has assisted in ‘banking’ the ‘unbanked’. Another obvious benefit is a decline in the use of loan sharks. Between 2004 and 2017 the proportion of households resorting to informal moneylenders dropped from 32% to less than 6%⁶². The shift saved people money. The interest rates charged by formal lenders are lower and have been falling for more than a decade, even though some microcredit outfits are purely commercial operations⁶³.

⁶⁰ <https://www.economist.com/asia/2020/08/15/cambodians-are-bingeing-on-microfinance-loans>

⁶¹ Green, N & Estes, J, (2019). Precarious Debt: Microfinance Subjects and Intergenerational Dependency in Cambodia. Antipode, 51(1), pp.129–147.

⁶² Microfinance and social welfare, Cambodia Policy Note. World Bank Group. 2019.

⁶³ <https://www.economist.com/asia/2020/08/13/cambodians-are-bingeing-on-microfinance-loans>



However, despite rapid growth in financial inclusion, there are a number of barriers access in terms of access to, and use of, financial institutions by Cambodian households, according to the International Finance Corporation (2010⁶⁴). The Global Findex⁶⁵ - a global database on how adults save, borrow, make payments, and manage risk – states the population age 15 and over in Cambodia had a bank account with any type of finance institution rose from 4% in 2011 to 22% in 2017. In 2017, 27% of adults had borrowed money from a financial institution, and only 16% of them had an outstanding mortgage. Of the 78% without an account in 2017, there remains some financial exclusion challenges. The main reasons stated for adults not having account ranged from insufficient funds (72%); a lack of necessary documentation (32%); financial institutions are too far away (31%); financial services are too expensive (26%); a lack of trust in financial institutions (19%); religious reasons (14%); or because someone in the family has an account (13%). Unmarried household heads, those without complete primary education, and households belonging to an ethnic minority are significantly more likely to borrow from informal sources, which highlights further financial inclusion challenges.

More recently there is growing concern of the increased household debt and overall negative impact of the MFI sector on the poorest households. Larger loans are favored over smaller loans, primarily due to the interest rate cap for microfinance institutions. “The number of loans of USD 500 or less declined by 48 percent, raising the proportion of households in the first quintile (poorest) who borrowed from an informal source increased by 5 percentage points in 2017. Meanwhile, microfinance sector lending grew by 53 percent in the last 3 quarters of 2017 compared to a similar period in 2016, as loan size increased by an average of USD 1,200 and USD 240 for microfinance deposit-taking institutions (MDIs) and MFIs, respectively”⁶⁶.

The annual percentage rate (APR) can be relatively high. Some MFIs set up mandatory insurance but there is a lack of understanding of the insurance from households. There can also be lack of transparency on pricing of the loan, as a MFI CEO shared during interviews conducted for the study.

Despite household’s high levels of debt, the MFI sector reports in general a low level of non-performing loans. Some have voiced their concern about using this metric as a key determinant of success, which of course, doesn’t reveal other issues in the sector that warrants further investigation. This could be, for example lending that supports human rights violations such as coerced land sales, child labor, debt-driven migration, food insecurity, and more. These last resort options are considered as the only possible ways for Cambodian households to keep up with their debt repayment so well⁶⁷.

“Borrowing has inherent risk, and calls for more financial education.”

Financial institutions interviewed for this study also pointed to room for improvement in terms of financial literacy. There are needs in better understanding the cost of a loan as well as in business development (business plans, etc.). However, as explained one MFI, the microfinance market in Cambodia is very competitive. By making financial literacy training compulsory for households before granting a loan would not work in the current market, without major changes to regulatory and reporting requirements. A alternative scenario, could be household members join training after the loan money is released and on a voluntary basis.

⁶⁴ International Finance Corporation . (2010). Understanding Cambodian small and medium enterprise needs for financial services and products . Washington, DC

⁶⁵ World Bank. (2017). Global Findex database 2017. Retrieved from <https://globalfindex.worldbank.org/#GF-ReportChapters>

⁶⁶ Ibid p.11.

⁶⁷ Collateral Damage – Land loss and human rights abuses in Cambodia’s Microfinance Sector. Licadho and STT. 2019.



A wide range of public, private, and developmental actors are nonetheless promoting financial inclusion and mass-based financial literacy⁶⁸. “For instance, the WB has financed educational programs on personal banking in national universities and has helped to produce videos and radio programs on the advantages of using financial services—notably loans—for business or personal needs, and of obtaining a mortgage to buy housing (Fauveaud, p.669, op cit)”. The National Bank of Cambodia is also active in this mission, having produced and regularly sharing financial literacy materials⁶⁹.

5.1.4 What are the COVID-19 impacts on the financial market in Cambodia today?

In the face of the global recession linked to the COVID-19 pandemic, financial institutions were encouraged by the Government of Cambodia to support as much as possible clients to avoid a possible debt crisis. Institutions interviewed stressed the importance of case by case responses, based on client profiles. Some offered to suspend up to a year all loan repayments – for tourism industry businesses, or suspend the loan repayment on principal only. Many offered loan restructuring, while one institution pointed to the need to look for medium to long term solutions, which could possibly translate into issuing new loans for income generation – for example supporting returning to agricultural activities for laid-off garment factory worker. In parallel, in an effort to take in the shock, some institutions have slightly reduced the interest rates on savings.

More concerning, however, are reports (rapid debt assessments conducted between April and August 2020) have shown that households have started selling assets and using their savings to cover for daily needs⁷⁰. Many people in the second urban belt in the capital are losing their jobs (24% of respondents) or experiencing a decrease in income (50% have seen an income decrease of more than 40%) due to Covid-19. For urban poor (including ID poor), 90% of survey respondents declared a reduction of income since the beginning of the health crisis. At the same time, market prices of key commodities (predominantly food and hygiene items) are increasing as a consequence of the worldwide pandemic. Many poor households could be pushed into extreme poverty because of the vicious circle of indebtedness⁷¹.

Similarly, the price of land and real estate are said to be on standby: not going up but not going down either. Those with stable income throughout the crisis are still able to access loans from commercial banks to purchase housing and land, and those with large amounts of cash available can take advantage of those left with no other options to sell. However, since no land or real estate national or even metropolitan observatory exists, quantifying these general impressions are nearly impossible at this point.

5.1.5 Housing finance today

Housing finance encompasses the needs for financing all the stages of the housing value chain (as described in section 4). We consider here two main aspects of it: access to loans for developers and access to loans for home owners.

⁶⁸ (Asian Development Bank, 2012, 2018)

⁶⁹ <https://www.khmertimeskh.com/603618/national-banks-strive-towards-financial-literacy/>

⁷⁰ Chamroeun field survey for SPTF – April to August 2020, Cambodia.

⁷¹ COVID-19 rapid assessment: indebtedness in Phnom Penh peripheral communities. Danovaro A., Barreras F. People in Need. June 2020.



If the major bank housing loans averages 25,000 USD, home improvement and purchase loans averages range from 2,500 USD to 11,000 USD according to the MFI interviewed (see table X below). MFI have reported that their clients generally borrow to improve houses, or build new homes in the provinces. Purchasing a home in Phnom Penh today is usually not possible through the loan conditions offered by MFIs because of the high prices of the real estate market in the capital city, especially if households don't already own the land.

Financial product	Maximum amount	Maximum tenor	Interest rate	Loan average	Collateral	Access conditions
Amret Housing loans	\$ 20,000	7 years	NA	\$ 11,000	Property title	- own the land beforehand. - loan is released in installments, based on the progress of the house construction - one loan per client only.
Amret Home improvement loans	\$ 15,000	7 years	NA	\$ 6,000	Property title	
Chamroeun home improvement loan	\$ 15,000	5 years	1,5% per month + 0.35% of monitoring /management fee	\$ 2,500	land title, car or moto registration	
Prasac housing and home improvement loan	\$ 50,000	8 years	NA	\$ 4,500	Property title	Clients are required to have collateral on top of the current land or house they want to buy. Collateral can belong to family members.
ACLEDA housing loan	\$ 300,000	10 years	NA	\$ 25,000	Property title	Down payment of 30% of total price of property + collateral, which can either be an ownership title for another property, or the property title of the property being purchased with the loan.

Table 15- Recap of housing and home improvement loans offered by financial institutions interviewed (September 2020).

The table above presents the main data on housing and home improvement loans offered by financial institutions interviewed for the study. Despite the varying amounts and loan conditions, all require a property title – or in case of the smallest MFI, a vehicle registration – to access a loan. This



constitutes one of the main barriers in accessing financial tools today for home buyers, and can lead to dangerous schemes in order to become a homeowner.

Accessing housing finance for households without a land title – resourcefulness or unnecessary risk?

Anecdotal evidence is reported that some households combine different loans in order to buy property, which could be considered as risky borrowing behavior.

Households will first borrow from an informal source or ask for family members or relatives support for collateral. Then they borrow from a MFI to be able to put down the first payment of a property. Usually, the developer agrees after the down payment to hand over the land property title of the new home.

The newly acquired property title then allows to take out a loan with a commercial bank. At this point, the home buyer has accessed enough money to cover the purchase of its home, but is in debt to two formal and one informal creditor, which places the borrower under severe financial stress to pay back all the loans.

When a MFI representative was asked about such combinations, they confirmed it to be a widespread practice but didn't consider it risky, since they claimed that in most cases home buyers will refinance their MFI loan with the commercial bank, leaving them with one formal loan to pay back. There is however no specific research on such practices, which makes it impossible to quantify the extent and the degree of households' financial exposure.

Accessing finance for developers

Despite strong growth in real estate (7%) and construction (9%) (see figure 27 above), developers aiming at operating in the affordable housing sector are facing constraints in accessing capital. Given the boom in construction in high end real estate products (see section 3), it can be assumed most of the credit lines reported go to such type of development.

Out of the two major developers considered building affordable housing today in Phnom Penh (see section 2.2), none are reliant on the credit from commercial banks in the local market. Both are "self-financed": one through the reinvestment of profits from previous real estate projects, the other via capital raised from group shareholders. Both developers consider these affordable projects as Corporate Social Responsibility (CSR), and not because they consider the medium to long term profitability of the affordable housing sector. Such perception of affordable housing might be explained by the inherent risks involved in affordable housing, including lower margins, uncertain borrowing capacity of buyers and development approval risk for developers. In certain cases, small developers with housing solutions starting at \$8,000 USD have reported to encounter difficulties to access loans to develop their activity to scale.



One of the major developers, however, recognized the importance to make home loans more affordable, and has partnered with a bank to offer loans at slightly reduced interest rates, absorbing the income loss for the banking by supporting with the administrative work and loan repayment support for the first year.

However, several reports on the unfavorable and irresponsible lending in the real estate sector have surfaced, some borey developers offering 'zero-deposit' purchase plans and allow home buyers to purchase homes without deposits or down payment. Instead buyers pay by instalment on interest rates much higher than commercial banks or MFI's. These loans through developers attract interest rates range from 10-20% per annum, as compared to 6-8% from commercial banks and <18% for MFI's on much short terms and lower borrowing amounts. This lending practice can be harmful to buyers, who often lack financial literacy to understand the higher interest that will need to be paid and if the loan isn't paid, the house can be reposed leaving buyers in a worse financial position⁷².

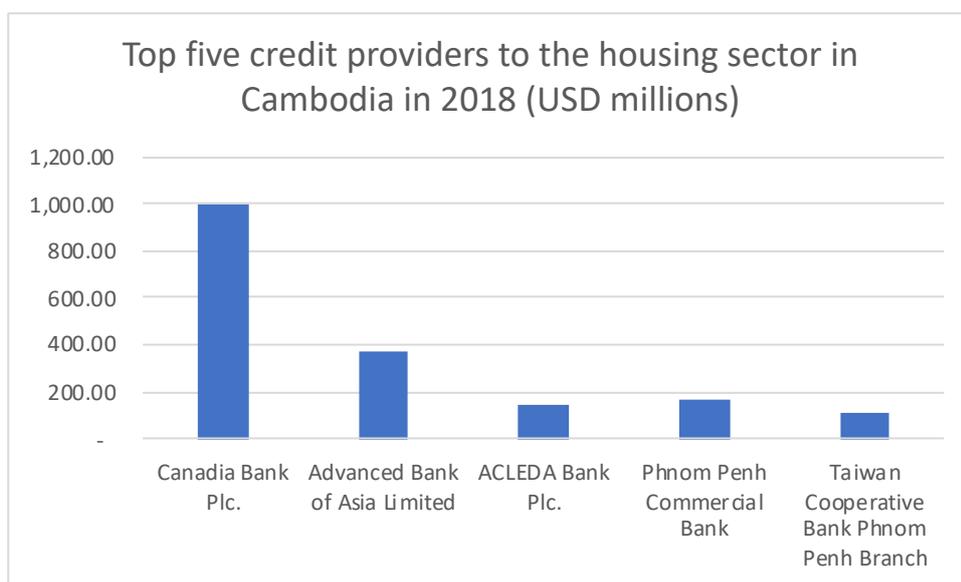


Figure 28 Top 5 banks in the housing sector in Cambodia, 2018. Reference: NBC banking data base 2018

5.1.6 Current barriers to developing housing finance

Commercial and MFI lending both provide options for home loans, but the constraints and perceived risks often prevent lending to low-income groups. These barriers on the lending side are caused by, although not limited to, high transactions costs (fees), interest rates, deposit requirements (up to 30%), insurance costs (more common with commercial banks) and collateral requirements (soft or hard land title). Some of these barriers are necessary to protect the integrity of the banking system; however, there is opportunity for increased collaboration with community organizations, donors and developers that would improve lending conditions to the lower income market.

⁷² <https://www.khmertimeskh.com/680977/problems-on-the-home-front/>



The issue of collaterals

Currently, nearly all commercial banks and MFIs require property titles as collateral, with more or less flexibility (see table 14 above a sample of housing loans conditions in Phnom Penh). Some will accept soft titles, some only hard titles, some the title for the property currently being purchased, some only another title for an already fully-owned property.

Because hard titles are rarer than soft titles, some financial institutions interviewed suggested widening the acceptance of soft titles as collaterals, so as to reduce the number of households turning to informal money lenders. Others also point to regulations which don't allow moveable assets to be put down as collateral, and suggest to revise this in order to improve lending practices – which shouldn't be based on the possession or not of a land title but on the capacity to repay.

Currently, some MFIs offer small loans which don't require ownership titles as collateral, such as group loans or loans based on savings score. However, these loans are generally very small amounts: from \$750 USD to \$1000 USD, pushed up to \$3000 USD in the COVID-19 economic crisis context. It seems unclear at this point, and rather unlikely, these instruments could be adapted for increasing access to housing.

How to improve housing finance access for end users: create new products or improve existing ones?

Housing finance traditionally serves only the lower middle-to-high income formal sector customers. In order to make housing more affordable, there is a need to increase financial inclusion and make housing finance products accessible and affordable to lower income and poor household categories. This customer segment requires a different approach, with a stronger emphasis on households' credit assessment and eventual need for support throughout the loan repayment.

Financial institutions interviewed have suggested two main entry points for increasing access to housing finance for currently excluded households: 1) develop risk-management mechanisms supported either by the State or international cooperation actors, and 2) increase access to money at lower costs on international financial markets for financial institutions.

Diversifying investors, working with impact investors operating in the housing sector, could indeed be a possible way to access funds at below market returns, then blending investment from financial institutions.

In parallel, de-risking mechanisms could also prove interesting to secure institutional investment and allow lending to higher risk profile households. This could be done through Government backed frameworks, like similar mechanisms which currently exists in the energy sector. The SME sector has also benefited from increased attention in the context of the COVID-19 crisis: a State owned bank was set up specifically to support SME through the crisis. Additionally, a Credit Guarantee Scheme is being set up and tested to support loan access for both SME and MFIs⁷³. These experiences could

⁷³ In the wake of the COVID-19 crisis, the Government of Cambodia is currently setting up, with support from the national financial institutions, a Credit Guarantee Scheme. <https://www.abc.org.kh/news/abc-meets-moef-credit-guarantee-scheme>



prove highly interesting to develop similar tools for increasing financial inclusion to improve housing access.

Another approach would be to access funding through international cooperation agencies, which could either support via first capital loss to attract other investments or directly intervening through affordable housing developers and lenders – at interest rates lower than market price. One of the top five banks reported having worked on providing loans for land-less farmers, which were made possible through a guarantee provided by the German Development Bank (KfW). Talks with the French Development Bank PROPARCO seem to have taken place a couple of years back on the creation of a Portfolio guarantee scheme. However, the cost was perceived too high by the financial institution for pursuing. Financial institutions have also reported discussions with the Asian Development Bank (ADB) and the International Finance Corporation. The latter is launching soon their first research on affordable housing in Cambodia, upon request of the Housing Division within the Ministry of Land Management, Construction, Urban Planning and Cadaster.

Finally, the lack of accessible and flexible finance for affordable housing constrains community development processes in Cambodia. Moreover, secured loans are not always appropriate for the majority of low-income households, which can increase their vulnerability to informal and predatory lending practices. Despite global recognition that access to finance is a key condition for low income groups to secure land, housing and infrastructure, it must be done in a responsible manner that doesn't put the customer and lender at risk.

The Urban Poor Development Fund

In 1994, an Asian Coalition Housing Rights (ACHR) exchange visit brought a team of poor squatters from Phnom Penh to Mumbai, to learn about the community saving movement of Mahila Milan. The first community savings groups were soon formed in the riverside squatter settlement of Basac, in Phnom Penh, with support from ACHR and the Indian Slum Dwellers Federation.

The savings process grew, and a citywide network of community saving groups was established the same year. Young professionals from the local Urban Resource Center (UCR) and Urban Sector Group (USG) supported this community-driven process with enumeration, community mapping and house modeling.

In 1998, the Urban Poor Development Fund was set up as a joint venture of ACHR, the Phnom Penh Municipality and the community savings network. It made its first collective housing loan to the city's first community-managed housing relocation and/or on-site upgrading projects. The goals were to improve housing, build basic infrastructure, secure tenure, support income generation activities and promote inclusive city planning.

Savings and community-driven development expanded to other cities: local CDFs were gradually established in areas where the savings groups were expanding, many in collaboration with local authorities. With support and capital grants from ACHR, ACCA and the new national version of the UPDF (the Community Development Foundation), the capacity of these 23 provincial CDFs grew to finance innovative and collaborative housing, upgrading and livelihood projects around the country. The CDF in Battambang, for example, gets bulk housing loans from the national Community Development Foundation Fund at 8%, and then on-lends to community housing projects in the city at 12%. Part of the income from that 4% margin goes back into the CDF lending capital and part is used to pay for network activities and accounting.

Each CDF sets its own rules, loan terms and lending priorities. Many CDFs established collaborative management structure through mixed committees which included community leaders, local government officials and other supportive local actors. Loans from the CDFs include a mix of collective and individual loans. Loans for housing, land, upgrading and livelihood are usually bundled as group loans to community savings groups, but some loans (for toilet construction and agriculture projects) are given directly to individual members. As of early 2002, it had provided about \$370,000 in loans to 2,400 families, mostly for house construction. It was in 2003 the only existing lending program for house construction in Phnom Penh. The very weak financial sector in Cambodia did not provide housing finance, even for better-off families.

The lending capital in the CDFs in Cambodia came mostly from outside donors (79%), with much smaller contributions from community members (20%), and from government (1%). The ACHR has pointed at strong financial support from outside donors as a reason for loss of ownership of the CDFs and explains the loss of responsibility and participation of people and community in the savings groups. Additionally, while these outside grant funds gave the city networks and their CDFs powerful tools to negotiate with the city and forge partnerships, they also concentrated more and more of the decision-making power with the network leaders, while it drained away that power from the savings group members, who now became passive recipients of those grant-funded projects. Eventually, the savings networks in Cambodia started to struggle over the years with structures that allow cliques of leaders or city level committees or savings headquarters to dominate, and have had to keep adjusting their organizations to revive stagnating savings and loan repayment crisis and give back the power to the members.

“The hierarchic structure of the community organization concentrates authority in the hands of the leader and a few deputies, often close to him or her, strengthening existing structures of nepotism. Indeed, after repeated scandals in which leaders lost community savings, many people lost trust in this kind of organization. Important limitations of the efforts of the UPDF were reported: the limited outreach of the NGO and CBOs activities (the impact of the credit and saving programs maybe over-reported), the lack of mechanism to reach the poorest, and the fragility of many community organizations in ensuring the ownership of the projects by communities and their operation and maintenance.” 2003 Global Report on Human Settlements – Phnom Penh. P.Fallavier for UNICEF.

The CDFs gradually reported serious loan repayment problems, especially on housing and land loans, with the proportion of defaulting loans ranging between 20-60%. Eventually, in 2014, the ACHR reported the UPDF decentralized, with part of its \$2 million capital divided among the 24 city and province-based CDFs around the country, and part kept in the new national Community Development Foundation (CDF) and part returned to the Phnom Penh Municipality.

Sources:

2018 ACHR study on Community Finance in Five Asian Countries.

2003 Global Report on Human Settlements – Phnom Penh. Pierre Fallavier, UNICEF.



5.2 Housing Finance - Global Lessons Learned and Best Practice for Affordable

Affordable housing is increasingly financed, produced and managed by a combination of state, for-purpose, private sector and community stakeholders, leading to a variety of hybrid governance and finance arrangements. It's likely this hybridity will continue to grow and develop, particularly in more developed economies across Europe, the United States and Australia ⁷⁴.

In the case of Cambodia, there are noticeable gaps in the ecosystem as a whole. Social or public housing - traditionally developed and managed by the state - is non-existent in Cambodia. For purpose organizations have not been able to fill the gap, which is usually taken up by housing association and foundations, particularly in more western developed economies. Cambodia has completely embraced market liberalization to provide housing, unlike other parts of South-East Asia, which often has a mixture of government led or owned housing and private sector development, such as Thailand or Vietnam.

Previous community led programs have sought to address these barriers, but, have largely failed to address sustainability and financial aspects of housing programs for low income groups in Cambodia. Noting, with particular relevance, the urban poor and community development funds (CDF), which took the concept of pooling resources beyond individual community savings groups to city scale, allowed for more ambitious housing projects for low income groups to be carried out. As explained by Brugman (2019) and Dasgupta & Beard (2007) the CDF model relied heavily on government providing free land for relocated communities and from the political support of individuals within government. In addition, there was an absence of risk management / modelling and formal legal frameworks that could sustain the program. These types of politically motivated programs seeking to challenge market forces are unlikely to be sustainable in a Cambodian context, particularly with a government that is sensitive to political influence from certain foreign interference.

The global trend towards hybridity to increase housing supply has not taken shape in Cambodia. In part, this can be explained by the adoption of neoliberal policies in the housing sector. Dating back to the 1990's, the increased emphasis of private ownership and rapid growth of microfinance and lending, have led to a monopolistic housing sector reliant on private developers and increasingly, overtaken by foreign investment interests. An issue for concern, is there isn't enough for-purpose housing developers and associations in Cambodia, which can offer alternative housing options, or hybrid models that can leverage finance from different sources, including from government. Affordable housing is currently viewed by developers either as uninteresting because of low ROI, or considered as CSR. The acceptance of affordable housing as an investment with positive risk-return profile in a medium to long term perspective still remains to be seen.

Nine case studies were reviewed, with a special attention paid to the potential they bring for more hybridity in affordable housing finance and development and how it could be adaptable and fit within existing markets, policy and institutional framework in Cambodia. The complete review can be found in annex 5. The case studies with the most potential for adaption to Cambodia are presented here below.

⁷⁴ Van Bortel, G. et al., 2018. Affordable Housing Governance and Finance: Innovations, Partnerships and Comparative Perspectives.,



- 1) Partnering with commercial banks for end-user finance, and local government for land, to support solutions for housing developers.

City: Beira, Mozambique

Implementing parties: Casa Real, a social enterprise established in 2017 to make decent housing accessible and Reall (formerly known as Homeless International) which provides affordable finance to its Implementing Partners.

Housing Finance Model:

Casa Real negotiated with mainstream banks to unlock mortgages at accessible terms and rates for Beira's citizens. This engagement was expedited by the Dutch government, which supported an impact advisory firm (Fount) to lobby several mainstream banks and the Central Bank of Mozambique. The Beira Mayor and the Municipal Council were also important enablers, permitting the sale of houses with "condominium" titles. This avoided legal restrictions on minimum plot sizes, which are otherwise too large and unaffordable for low-income households.

These developments later made the way for Absa Mozambique (formerly Barclays) to launch a new housing mortgage product in 2019. These mortgages are targeted at Casa Real customers with monthly incomes lower than US\$ 237 per month. For now, this income level is the lowest the bank is prepared to consider, and it represents a substantial improvement on previous mortgage conditions.

Innovation

Absa provides financing for a maximum 95 per cent of the property selling price (compared to 70% from Cambodian banks), Furthermore the customer is expected to pay a deposit of at least 5 per cent (compared to 30% in Cambodia). Casa Real has worked to alleviate this by negotiating a reinsurance product for the banks to provide mortgages without a down payment condition (this could be replicated in Cambodia.) Absa charges interest on the loans at the national "prime rate" (18 per cent), plus a relatively small margin of 0.25 per cent (this compares favorably in Cambodia as interest rates range from 8-12 per cent in commercial banks).

Can the model be replicated in Cambodia?

There is potential to address both the deposit and lending amounts through provision of a guarantee in Cambodia. Further, there is opportunity for a local organization with community and commercial credibility in Cambodia to support the identification of customers, facilitate agreements with employers, assist with opening bank accounts, provide relevant documentation for the houses, such as land titles, and conduct valuations of housing typologies. This organization would also need bear these transaction costs in supporting the customer and bank.

- 2) Housing finance for developer-led housing supplied through partnership with a state-owned bank to manage homeowner instalment plans and partnership with a major employer to manage employee repayments.

Country: Pakistan

Implementing parties: Ansaar Management Company (AMC), a social enterprise established in 2008 to make quality housing more accessible and Reall (see above for description).

Housing Finance Model:



Focus on sustainability, mixed-tenure housing sold on the open market. AMC developed a mortgage product for low-income buyers in partnership with a semi state owned finance institution, Housing Building Finance Company Limited (HBFL).

Innovation

HBFL now provide a mortgage product to AMC customers with a minimum monthly income (US\$161). Mortgages are loaned at a fixed interest rate of 12 per cent (compared to 35 percent offered by microcredit providers) for 20 year terms, and deposit requirement of 25 per cent. This is available to those in formal and informal employment. AMC reduce risk to the lender by ensuring borrowers have land certificates and homes are built to quality standards. AMC also offer instalment plans for those who are ineligible for a bank loan – this allows for the sales process to start before converting to a mortgage.

Can the model be replicated in Cambodia?

This model has potential to work in Cambodia but first must be piloted to determine the viability of this sub-commercial model. A local bank partner and housing developer are essential partners in this model.

3) First Microfinance Bank of Afghanistan (FMFB-A)

Country: Afghanistan

Implementing parties: The First Microfinance Bank of Afghanistan (FMFB-A)

Housing Finance Model

The FMFB-A was established in 2003 with the mission to reduce poverty and promote financial inclusion by providing its clients with access to financial services. It has been supported with the financial and technical resources from multiple international development agencies, such as the Aga Khan Agency for Microfinance (AKAM), International Finance Corporation (IFC), the German Development Bank (KfW), and the U.S. Agency for International Development (USAID).

Innovation

Housing microfinance plus technical advisory. Construction technical assistance is provided with loan approvals. Support services are provided across the value chain from advising on securing land tenure to selection of building materials, construction techniques, and innovative methods and interventions that address earthquake resistance, sanitation, ventilation, and energy efficiency. Combining the loan offering with construction technical assistance helped raise awareness about safe construction, reduce the cost of future repairs, and ultimately improve the quality of the loan.

Can the model be replicated in Cambodia?

This approach could be adapted in Cambodia with the right finance partner, particularly the method to piloting, testing and refining a loan product. In the case of FMFB-A, loans could be used for either home improvement or construction to cover activities such as home repairs and upgrades, structural changes, new home completion, connection to basic utilities such as water and electricity, solar energy installation, house insulation, hygiene improvements, such as septic tanks. The maximum loan exposure for each borrower during piloting was up to US\$1400, and after modifications, up to US\$9000 split across three cycles.



Conclusions

This section offered a deep dive in the current financial landscape to allow a better understanding of dynamics at play, identify challenges and opportunities in identifying the appropriate financial stakeholders for the creation of an affordable market.

The Addis Ababa Action Agenda and the 2030 Urban Agenda identify the need for multiple sources of finance, public and private, domestic and international, to work together effectively and in new combinations. Yet only a small fraction of global investment assets is targeted at sectors and localities that advance sustainable development in developing countries. This is particularly true for Cambodia, where the need to create new models and tools to develop the affordable housing market is flagrant. The need to bridge the financial gap between public and private resources could be done through the support of international cooperation and opportunities offered by blended finance mechanisms. These options remain to be further explored.



6 MOBILIZING CLIMATE FINANCE FOR AFFORDABLE HOUSING

6.1 Connecting affordable housing and climate finance

Scaling up large municipal investments that result in GHG mitigation and climate resilience is recognized as urgent. Emergent blended investment instruments, such as green bonds, have made green investment opportunities more attractive in emerging market cities. The urgency of climate change and availability of innovative finance approaches means that there is more climate-linked investment for emerging market cities than ever before. There has also never been such a large mismatch between climate funding and project pipeline for investment. Mobilizing climate finance for green city development and adequate Affordable housing is only a matter of readiness in terms of planning, commitment and capacity for management and implementation.

Incorporating basic green features into housing is a practical and relatively easy strategy to reduce day to day home ownership costs. There are many examples of affordable housing lending schemes that leverage climate finance to fund the marginal costs of these green features. However, greening the operation of housing, while important, contributes relatively little towards improving the life cycle affordability of housing. To fully mobilize climate finance to reduce housing costs, the environmental sustainability impacts associated with integrating large scale, Affordable housing settlements into in a city must be linked to wider urban environmental sustainability outcomes.

Availability of affordable housing in a city is an enabler of sustainable transport. Dense, well integrated housing developments enables efficient delivery of waste management and all other utility services. Provision of formalized, decent housing increases sound urban management and allow for a better protection of natural ecosystems across all neighborhoods, which is instrumental to urban climate resilience and overall quality of life. Affordable housing is a clear enabler of urban environmental sustainability and cannot be unlinked from green city infrastructure investments.

The discussion that follows discusses the opportunity and barriers to mobilize climate finance flows to key housing affordability levers and elaboration of a policy pathway for leveraging climate finance to improve the affordability of Affordable housing in Phnom Penh.

6.1.1 The Housing Affordability Levers

To consider the full potential of climate finance to improve housing affordability, the first step is to understand the key levers driving housing costs. The simplest and most straight forward climate related impact area for housing affordability is operations and maintenance. Integrating basic green features into housing has a direct and measurable impact on life cycle energy costs and strong potential to impact finance terms. However, operating costs only have a small influence on the overall affordability of housing. Figure 29 below defines affordability levers as defined by McKinsey and Associates (Woetzel et al., 2014).



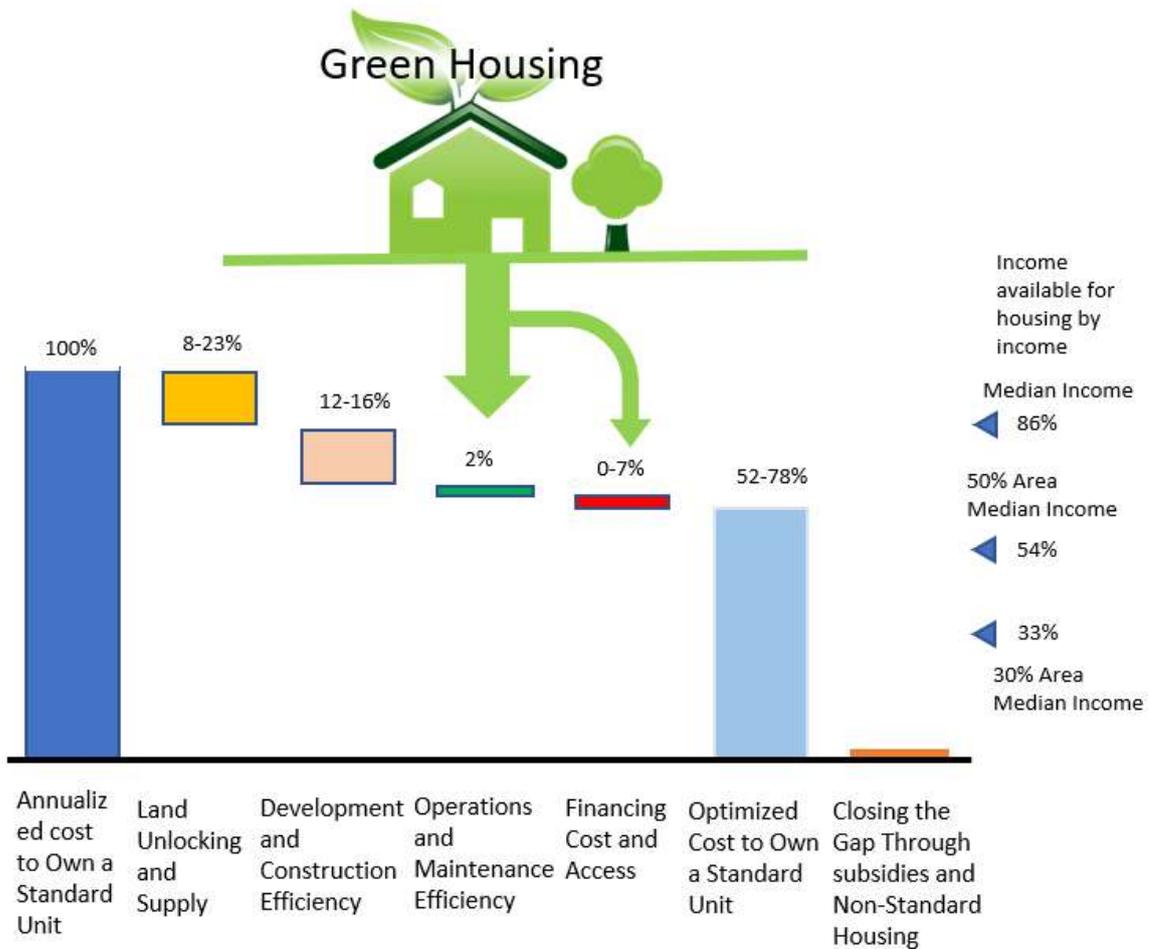


Figure 29 – Housing Affordability Levers

6.1.2 Connecting Housing Affordability Levers and Urban Environmental Sustainability

To understand how climate finance can be mobilized to impact housing affordability, the environmental sustainability linkages between Affordable housing and wider urban sustainability outcomes must also be understood. For example, in the last 50 years, cities like Singapore, Bangkok, Seoul, and Tokyo, the critical role of integrating Affordable housing as a critical part of comprehensive city development master planning has long been recognized. Expanding the availability of Affordable housing in these cities has clearly delivered positive sustainability outcomes in terms of economic inclusion and, increasingly, environmental sustainability. Policies that mainstream Affordable housing into development planning has ensured that when land is secured for large urban developments, particularly around transport hubs, affordable housing is an integrated part of planning. All of these cities still have significant hurdles for reversing the impacts of 50+ years of unsustainable development practices. But, new, progressive green city practices which prioritize housing integrated, multi-use, density-oriented planning strategies have started to show positive environmental sustainability outcomes including reducing overall resource intensity of the built environment, reducing transport network congestion by facilitating circular economic activity, and increasing the availability of greenspaces for improving quality of life and increasing climate resilience (Buckley & Kalarickal, 2006).



6.1.3 Leveraging Climate Finance to Impact Other Affordability Levers

In general, lessons learned in cities like Bangkok and Seoul show that increasing land access for housing and increasing housing construction scale requires a commitment to a long term planning vision and implementation of strong, supportive, laws, regulations and institutional arrangements. Requirements to leverage climate linked finance from the private sector at the scale needed to significantly impact housing affordability is the same for attracting private sector for other large-scale municipal investments. Increasing the availability of Affordable housing in a rapidly urbanizing city requires that the municipality has the authority to enact laws and regulations to facilitate spatial planning strategies and the capacity and autonomy to raise finance, for facilitating complicated private sector investments. Investors must have the confidence that city authorities can ensure that climate linked infrastructure and services, like transport networks and large multi-use built environment developments, are managed such that environmental sustainability benefits are realized.

Some of the key indicators for a city's potential to access climate finance to fund green infrastructure projects and services are list below.

Management and Technical Capacity

- I. High technical and managerial capability
- II. Service oriented institutions are responsive to customer needs
- III. Driven by performance

Fiscal Profile and Investor Networks

- I. Maximize revenue from existing and potential sources
- II. Demonstrates the ability to leverage funding from the private sector.
- III. Demonstrates the ability to access funding from international and local organizations that support green investments.
- IV. Demonstrated ability to collect revenues from conventional sources such as various taxes, environmental discharges, permits and refund schemes.

(Source: Asian Development Bank, 2012)

6.2 Urbanization and the Housing Value Chain's environmental impacts

The housing value chain is enormous in a city and impacts almost all other sectors. Planning that prioritizes the provision of well integrated housing for all income groups has the potential to serve as an instrument to drive positive environmental sustainability outcomes in key sectors such as transport, efficient provision of utility services and protection of ecosystem services that improve quality of life and supports urban resilience (ESCAP et al., 2011). City planning that mainstreams housing-integrated urban densification strategies has been cited as a key to maximizing positive, environmental sustainability linked outcomes, like energy and water efficiency, reducing traffic congestion, and increasing the availability of green space.

Although densification, including integration of Affordable housing, has great potential to increase the environmental sustainability of a city, the literature shows that it must be well planned with complementary, cross cutting policies and regulations to ensure good outcomes. Poorly planned,



densification of urban areas can result in unhealthy sanitation challenges, low availability of quality public green spaces, increased slumification of existing buildings, and increased transport congestion. Policy actions should include green building standards, provide strong incentives for green building retrofits, integration of transport planning, ensure preservation of quality green spaces, and an over-arching system for collecting data on key metrics and measuring progress on city wide sustainable development goals. If poorly managed, urban sprawl greatly increases the environmental footprint of transport networks. As discussed, urban sprawl in Phnom Penh is being accelerated by high land prices within the city which contributes to the scarcity of decent, affordable housing within the city. Real estate speculation and development of satellite cities on the periphery of Phnom Penh is compounding the urban sprawl and forcing relatives even further outside the city. Urban sprawl increases congestion of roadways resulting in greater pollution and higher emissions of greenhouse gasses.

It is well established that well-planned, integrated, dense urban developments that are connected to complementary transport networks have a high potential to enable lower energy and carbon intensity. By contrast, cities that have weak urban sustainability planning, where sprawl is unabated and there is little or no consideration for well planned, dense, multi-use settlements, are typically far more energy intensive in terms of transport and building energy use (Asarpota & Nadin, 2020). For example, Asarpota highlights research that indicates that dense, well-integrated housing developments in cities has the potential to greatly increase “active transport” (e.g. cycling, walking), resulting in resident decreasing driven kilometers by 40%, 25% less petroleum used in cars, and 30% reduction in traffic congestion. Densification of urban areas, including integrating Affordable housing, has also been shown to reduce overall energy intensity by 20-50% including buildings and transport.

Policies which encourage the development of dense urban forms with urban centers that integrate human settlements, business and green spaces have been shown to have not only energy efficiency benefits, but also other sustainability benefits in terms of economic development and mobility, social cohesion, and public health. Ensuring the provision of adequate, affordable housing, well integrated and well connected to urban nodes is fundamental to sustainable urbanization of Phnom Penh. Existing planning initiatives, such as the 2018-2030 Sustainable City Plan and the Green Growth Roadmap and the 2014 Transit Master Plan are key first steps to put Phnom Penh on a green city growth trajectory. Continuing to support policy that encourages the mainstreaming of good environmental and social outcomes as well as the establishment of authoritative institutions that are empowered to take strategic actions for implementation is critical.

6.3 Climate-linked operating costs in housing

In 2010, the Intergovernmental Panel on Climate Change (IPCC) estimated that direct and “indirect” emissions from buildings contribute 32% of all global GHG emissions with housing alone contributing 24% of all global emissions. Most indirect housing life cycle emissions can be attributed to the construction phase which equates to approximately 15% of total global emissions (Clarke et al., 2015). Here, construction-related emissions refer primarily to the energy required to manufacture materials, transport materials to site, and assemble materials and components.

6.3.1 Drivers for Green Design

The most immediate cost benefit and affordability driver for greening Affordable housing is associated with reduced operating costs. The benefit of greening housing for owners and occupants



are well documented and compelling. By implementing only basic efficiency measures, the potential to reduce utility expenditures is typically 15%-20% (Parris, 2007). Greater savings are possible with more complex features. For example, Vinte, a low-cost home developer in Mexico, has constructed homes with 75% energy savings compared to a conventional design.

Resource efficient homes are also typically constructed with higher quality materials, equipment and craftsmanship which require less investment in ongoing maintenance and risk of unexpected repairs. The reduction in financial burden associated with lower operations and maintenance costs improves the owner's capacity to service ongoing mortgage debt which improves the lending risk profile of a green dwelling.

6.3.2 Utility Cost Savings of Passive Design Features

A core design strategy in green home design is incorporating passive energy design features that leverage climate conditions to maintain comfort and decrease the need to operate energy intensive appliances. Cambodia's climate is tropical with hot ambient temperatures and high level of moisture in the air for much of the year. The two key bioclimatic design strategies for a tropical climate is to simply minimize sun exposure and encourage air movement. These two strategies alone can significantly improve comfort inside a dwelling and decrease the need for mechanical appliances for cooling.

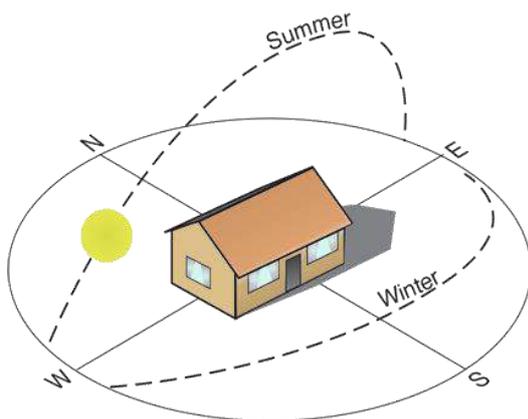


Figure 30: Home orientation and sun exposure (Source: Nachi.org)

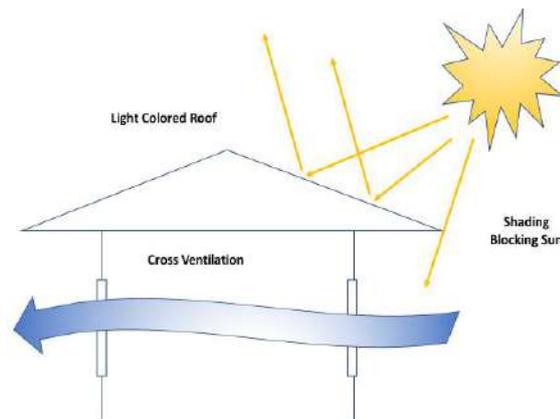


Figure 31: Ventilation and shading

Other basic green design techniques that are important for Cambodia are selection of light, reflective finished and ensuring that the number and placement of windows minimize heat gain from the sun. A gabled roof with a light glossy finish in a climate similar to Cambodia reflect about 35% more incident solar radiation than a roof with a dark grey finish (Levinson & Akbari, 2010).



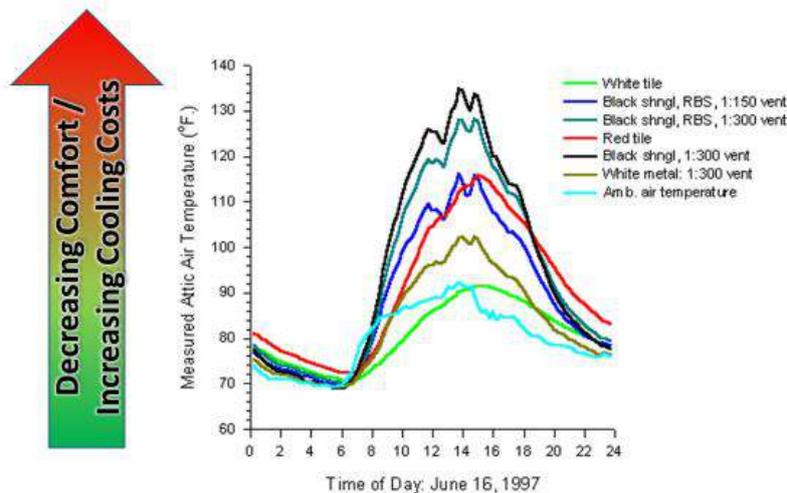


Figure 32: Roof space temperature for different roof colors a different times in a day (Parker & Sherwin, 1998)

6.3.3 Maintenance Costs

Achieving good life-cycle cost savings with green dwelling design requires higher quality materials, equipment, and craftsmanship which contributes to repairs that are less frequent and less severe. Studies conducted by LEED show that homes with a good green rating are often more durable and easier to maintain, reducing related operating costs by as much as 10% during the lifetime (Ulterino, 2018).

6.3.4 Rents and Asset Value

Green housing can also equate to improved asset value. The typically higher quality and performance of green homes has been shown to attract higher rents and achieve greater sale prices. A review of studies surveying green building value in re-sale markets shows that in several major markets including Europe, Singapore, and China, buyers are willing to pay from 4% to 8% more for a green building depending on performance rating (Zhang et al., 2018).

6.3.5 Borrowing Costs

Lending is a significant barrier to home affordability and the conventional mortgage market often has low interest in Affordable housing due to the perceived transaction risks. Greening housing and well-planned green developments have the potential to reduce the risk profile for mortgage lenders. Multiple studies of the green building sector in several countries have demonstrated that owners of green homes are much less likely to default on loans (An & Pivo, 2020)

6.3.6 The Potential of Renewable Energy Technologies

Renewable energy technologies can be leveraged to lower utility costs for Affordable housing while potentially improving quality of life and improving hygiene through greater access to amenities like hot water. Cambodia has great potential for solar energy due to the significant amount of annual solar insolation (energy) available.

As with many countries, the use of domestic hot water in Cambodia is increasing and generating solar hot water can help reduce household utility expenditures. On average, a typical household of



eight people could use as much as 175 m³ of hot water per year which equates to 1,402 kWh of electricity consumed per year or USD 252 100% of this cost could be avoided by using a solar hot water system. The required solar system would cost USD 1,670 with a payback of 6.7 years.

Due to the moderately high electricity costs in Cambodia, Photo Voltaic (PV) systems also have good potential to reduce costs for households. A typical 2,000-watt solar system can produce approximately 1,489 watts per year of electricity or offset USD 261 of electricity costs. At an initial cost of USD 2,303 the payback for a solar PV system is about 10 years.

6.4 Mobilization of Climate Finance for Green Dwellings

6.4.1 Enabling Access to Climate Finance

The starting place for using greening to mobilize finance for green Affordable housing is valuing investment in green dwelling design. To attract investment, a common framework is needed that defines what a green dwelling is and elaboration of what the potential benefits of incremental investment in green features in terms of operating costs, reduction in resource intensity, and greenhouse gas emissions. Many states and independent organizations have established valuation frameworks to mobilize finance for green buildings and the strategy employed can serve different purposes in the market. Green dwelling valuation frameworks can be locally developed or adopted from other, established regional or international initiatives.

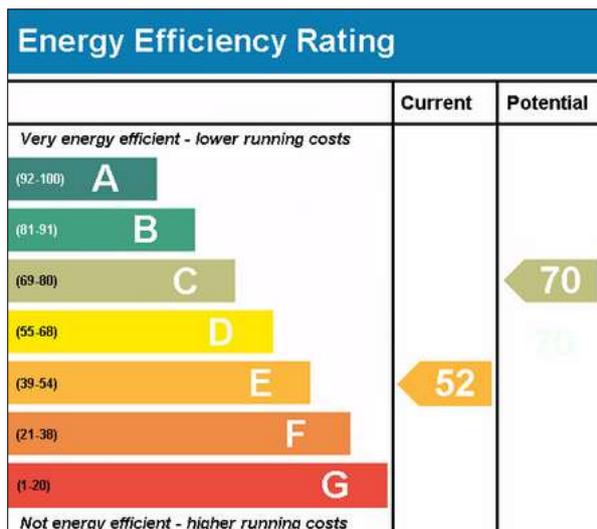
Minimum Green Building Standards for Green Residential Dwellings

Minimum standards for green buildings or green building developments may be part of a code for legal enforcement of sustainability performance and/or part of a voluntary incentive programs promoting the green buildings. Thailand, Singapore, Hong Kong, India, and Malaysia have all implemented minimum sustainability requirements in their building code within the last 20 years with a primary focus on energy and water efficiency. Development of a minimum green building standard can be helpful in mobilization of special, climate linked concessionary finance for Affordable housing that is backed by impact investment funds targeting environmental sustainability.

Green Rating System for Residential Dwellings

Green rating systems provide a scheme for which green buildings can be rated on a scale. Green The purpose of a green building rating system is to provide an indicative guide in the market to differentiate the value add of green features of otherwise comparable properties in terms of size, amenities, etc. A green dwelling rating system can be separate from or integrated with minimum green standards. For example, in the UK energy rating scheme, minimum energy performance earns a rating of D on a scale of A to G. Combining the minimum green rating standards with a green building scheme can serve to not only as a tool to value green feature of new dwellings, but also be used to structure incentives for green investments in existing buildings.





(International Partnership for Energy Efficiency Cooperation, 2014)

Figure 33: British energy labeling scheme showing performance of an existing building and potential for improvement.

Local vs Regional Rating Schemes

Schemes for rating green buildings can be developed nationally or adopted from an international organization. Examples of building sustainability rating systems that have been developed internationally include well known schemes such as LEED, BREEM, Edge and others. Many countries have also developed their own green building rating systems – often in combination with minimum green design standards that are linked to the national building code. Country examples of national building sustainability rating systems include the Bureau of Energy (BEE) Energy Star program and national LEED based scheme for India, Green Mark rating scheme in Singapore, GREENSHIP in Indonesia, Green building Index in Malaysia, Lotus in Vietnam, and TREES in Thailand. There are benefits and drawbacks to developing a national rating system for building sustainability in contrast to adopting an international standard.

Local Schemes

From a governance and development management perspective, it takes a significant commitment of resources to manage the technical development and governance of any sustainability rating system. Developing market acceptance and value for a rating system also takes significant resources and long-term commitment of a range of stakeholders.

Nationally developed sustainability rating schemes that have seen successful market compliance rates and acceptance have been backed up by enormous resourcing and typically mainstreamed by the government either through large incentive schemes or a well implemented regulatory measure. Singapore is a prime example where the Green Mark rating scheme has seen success, and this is mainly of the formalized government sponsored incentive program that has driven it (Liu et al., 2010)..

The value of a locally developed scheme is the potential for better national ownership and better flexibility in adaptation to the specific needs of the local market. Green building standards and rating schemes require the involvement and cooperation of a large number of stakeholders across government, private sector, academia and civil society to ensure success. If successful, development of a local minimum standard and rating scheme is an opportunity to develop new local capacity and empower a sense of national pride in a difficult area.



Regional and International Schemes

The main benefit of adopting a widely accepted regional scheme or international rating scheme is the reduced burden of ongoing development and maintenance. Singapore's Green Mark rating scheme has been promoted throughout Southeast Asia and has gained some traction with part of the attraction being that it is more appropriate for regional climates and market conditions.

Adopting an international or regional scheme can also be beneficial to value wider sustainability features of a dwelling or settlement in the market. For example, LEED has various component rating schemes which can award points for features that include access to public transport, solid waste management, reducing construction waste and decreasing embedded energy associated with materials.

UK's BREAM, LEED and Singapore's Greenmark rating system also provide the flexibility to customize and brand the schemes for local market. However, the more customized a scheme becomes for the local market, the more national resources that are required for maintenance hence reducing the benefit associated with decreasing local resourcing.

Equipment and Material Standards

Green rating systems do not stand on their own. Additional policy and regulatory measures that support standardization of equipment and materials must be in place for green standards and green building rating systems to be effective. The design and equipment efficiency requirements that enable building performance heavily depend on the underlying performance of equipment and materials. To give investors confidence that housing designed with green features, like an insulated roof / wall or an energy efficiency water heater, will deliver the projected savings, there must be nationally recognized standards for material and equipment. While material and equipment standards could be adopted from another country, Cambodia must have the institutions and national standard to implement an enforcement regime to ensure performance due diligence. This enforcement regime includes appropriate policy, laws and regulations giving the government authority to set standards and enforce them and funding of a dedicated energy efficiency standards body that catalogs nationally adopted standards and operates laboratories for testing equipment and materials to test performance.

Cambodia Initiatives

Currently, Cambodia has not established a national green building rating scheme or a national green building standard. However, the latest enhancements to Cambodia's Nationally Determined Contributions under the UNFCCC Paris Agreement, Cambodia's intention is to strengthen green building minimum standards and establish a national rating scheme. As part of the NDC implementation process for green building standards, The National Council of Sustainable Development of the Royal Government of Cambodia initiated a program to develop a national green building rating system and national green building standard which is scheduled to conclude in 2021.

As the focus on environmental sustainability and particularly the urgency to avoid catastrophic impacts of climate change, there is increasing opportunity to mobilize climate finance for green Affordable housing. The first opportunity is associated with funding the incremental costs of green features that deliver life cycle operating costs associated with utility consumption. The second opportunity is associated with attracting green mortgages which are used to apply incentives linked to construction of certified green dwellings.

From the perspective of equipment and material standards, there are some activities underway. The draft Energy Efficiency and Conservation Masterplan is the key policy document that elaborates a



roadmap for adoption of appliance standards and labels. Through the Ministry of Mines and Energy, an energy efficiency standards and labelling scheme has been underway.

6.4.2 Incremental Costs and Benefits of Green Dwellings

The marginal cost of including basic green features into Affordable housing can be modest. Typically, basic green features, such as efficient appliances, only add about 2%-5% onto the purchase cost. However, depending on the extent of technology investment, operational savings can easily be 20% (Likhacheva Sokolowski et al., 2019).

From the point of view of carbon abatement costs, the direct impacts of basic green bioclimatic features in housing and basic energy efficient appliances have a positive return on investment – the marginal cost of these measures result in a positive return to the economy. Although no cross sectoral marginal abatement curve has been developed for Cambodia, the marginal abatement curve for Vietnam shown in Figure 34 below is indicative of the market.

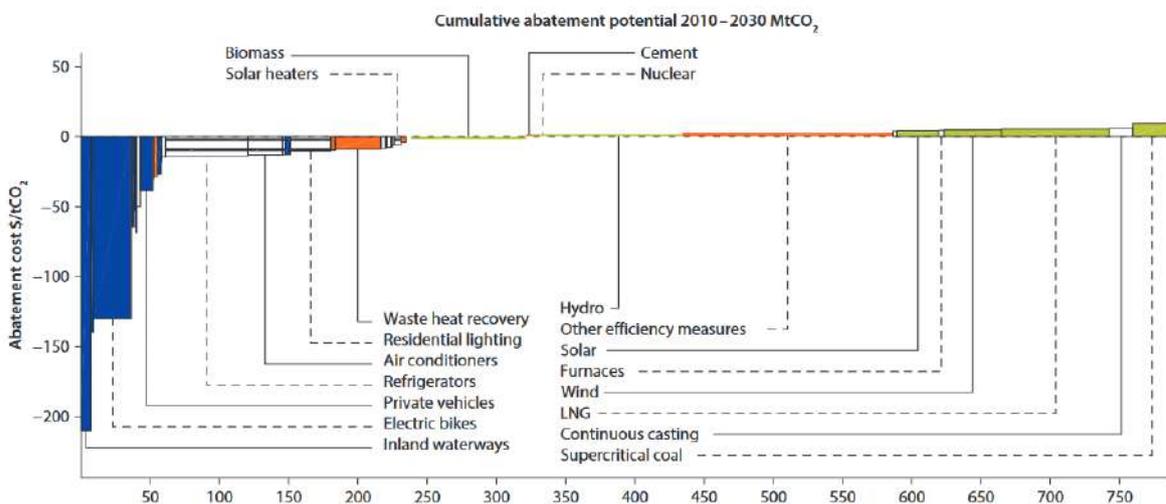


Figure 34: Vietnam marginal abatement curve – indicative of Cambodian context

Given the higher costs of energy and market similarities, the marginal abatement cost curve for Vietnam should be representative of Cambodia.

6.4.3 Potential of Green Mortgages

Green mortgages for the poor are not only a social and environmental imperative, it is also a huge and largely unexploited global business opportunity. The IFC shows that the potential green lending market is enormous with a potential in emerging market regions at USD 15.7 billion



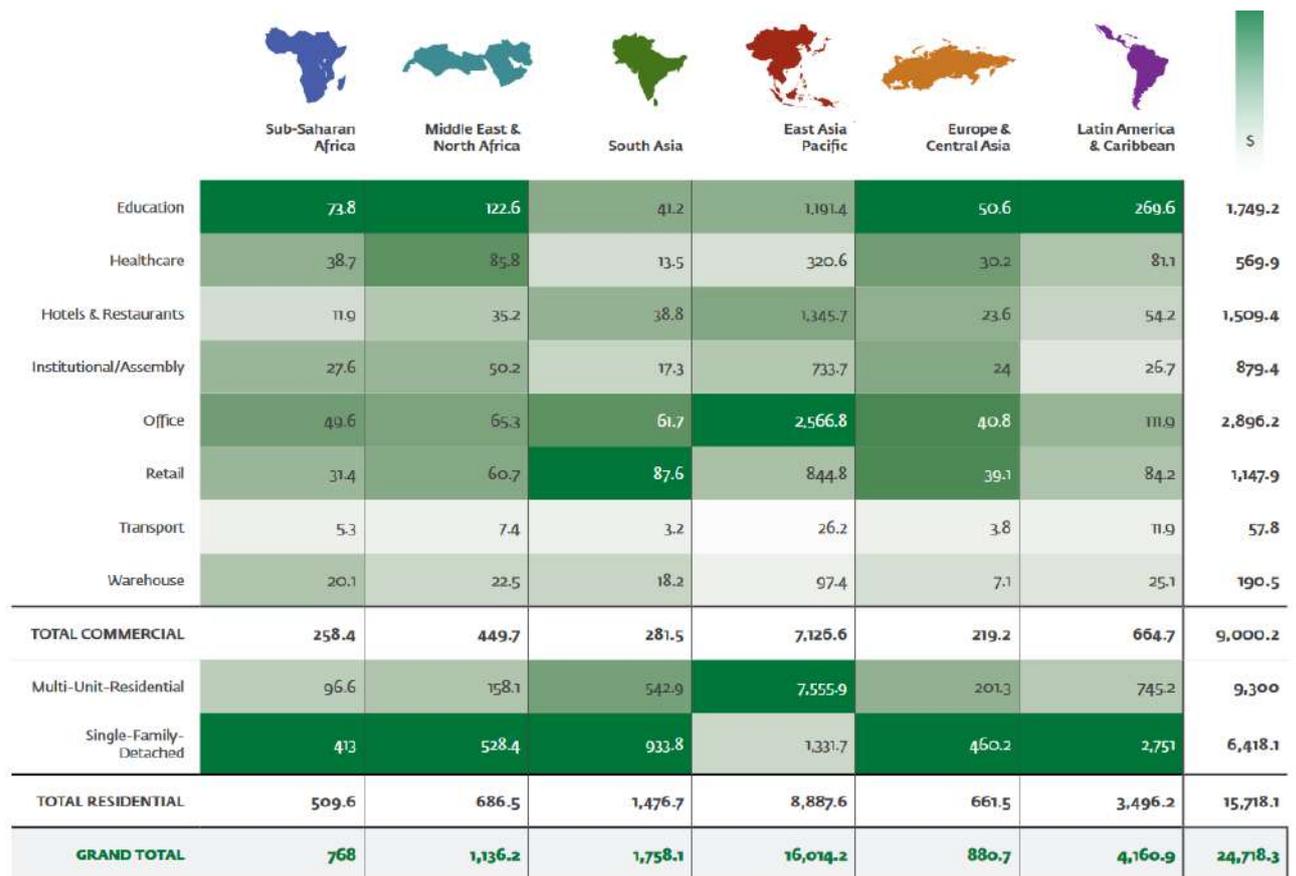


Figure 35: Green lending market in emerging market regions (Likhacheva Sokolowski et al., 2019)

However, much of the opportunity for the residential sector require further innovation in blending sources of investment to design mortgage products that are accessible for the poorest of the poor. The building urgency for climate action has been putting more green affordability rungs into the Affordable housing mortgage market.

There is a growing number of initiatives for support of green mortgages in emerging markets which facilitate access to finance for low income residents. The successful EcoCasa program in Mexico is the best example of a green mortgage program that has extended to the lowest rungs of the affordability spectrum in the global green housing market. The EcoCasa mortgage program was underwritten by the IADB and blends commercial finance with subsidies from the Mexican Government and climate finance to deliver an adaptable product to the spectrum of affordability. Figure 29 from the Building and Affordable housing Foundation shows the requirements for energy savings features adjust according to income group (BSHF, 2016).



Income: Times Minimum Wage (TMW)	Minimum monthly savings amount required	Green Mortgage Amount in TMW
1.00 - 1.59	US\$ 7.4	Up to 2 US\$ 302.5
1.60 - 3.99	US\$ 15.9	Up to 10 US\$ 1,512.3
4.99 - 6.99	US\$ 18.5	Up to 10 US\$ 1,512.3
7.00 - 11.00	US\$ 21.4	Up to 15 US\$ 2,268.5
From 11.00	US\$ 29.6	Up to 20 US\$ 3,024.6

Figure 36: Sustainability feature requirements of the EcoCasa Green Mortgage according to income group

Another prominent example of green mortgage design for affordable housing is the product offered by the African housing and rental corporation HIS. The IFC helped structure a green mortgage product targeting affordable housing which blends climate finance sourced from the Global Environment facility to offer concessionary terms for low income residents. This program has also been successful with origination of mortgages to low income residents to date. However, the IHS green mortgage program, unlike the Ecocasa green mortgage program mainly caters to what has been termed “gap” finance which is designed to mainly target social servants. Figure 37 below shows the USD 225 to USD 578 monthly household income target of the IHS green mortgage product in the South African income distribution continuum.

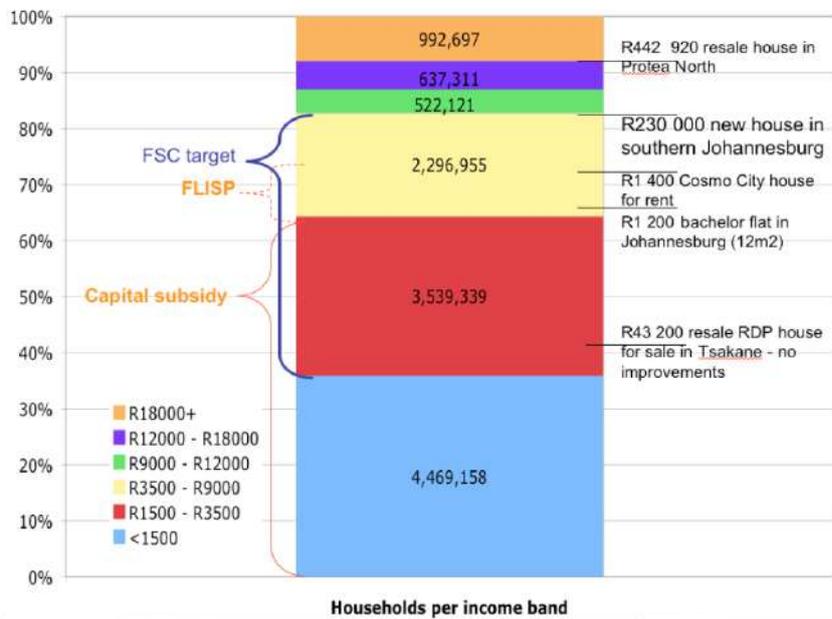


Figure 37: IHS green mortgage “gap” market

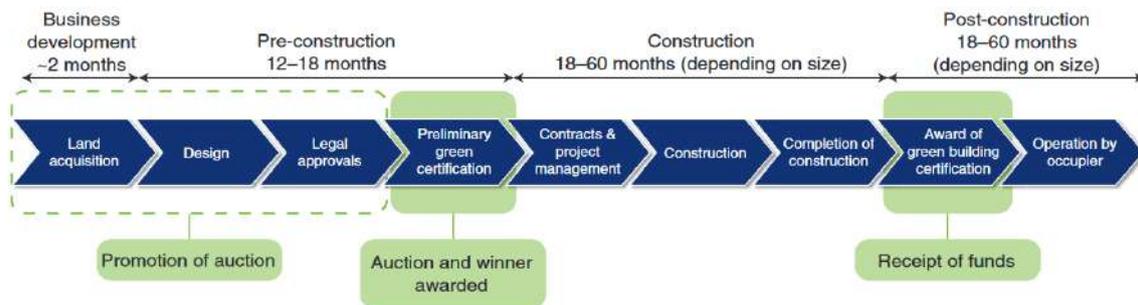
Although the HIS green mortgage goes a long way to extending access to housing finance, the low income household bracket below the USD 225 monthly income level of civil servants must be addressed through additional state subsidies (Rust, 2009).



6.4.4 Climate Finance for Incremental Costs

World Bank Climate Auction Scheme

Recognizing the positive potential of climate finance in the housing sector the World Bank published the climate auction pilot study for green housing in 2019. The pilot scheme works by issuing green bonds to investors which guarantee a minimum price for carbon abatement. The bond proceeds fund market incentives to fund the marginal investment costs associated with green features in dwellings.



At any point onward from the award of the option, the winner of the incentive payment could sell on the contract to another bidder who meets the eligibility requirements of the scheme

Figure 38: World Bank pilot climate auction model to catalyze energy and resource efficient buildings – construction timeline and auction mechanism milestones

Green features include passive energy design, efficiency appliances such as lighting and hot water heaters, and low embodied energy materials. The financial incentive from the auction proceeds are awarded to developers which deliver an Edge certified dwelling at the lowest cost per square meter. The 2019 study found that the scheme would be most effective at catalyzing green investment in housing for the low-income market. The key benefit of the climate auction scheme for housing is that low income home buyers would receive the lifetime benefit of green features while developers could offer the homes at the cost of a conventional home to the low-income market. The scheme has the potential to support a green mortgage program which lowers lending costs by considering the lending risk reduction associated with the lower life cycle costs and increased asset value associated with certified green dwellings. The auction mechanism could be adopted to incorporate other criteria such as poverty reduction, urban densification contribution, or strengthening climate resilience.

Green Dwelling NAMAs

The finance facility for Nationally Appropriate Mitigation Actions is another possibility for mobilization of green finance to increase housing affordability. Out of fourteen housing related NAMAs, the ECOCASA project in Mexico has received funding and is under implementation. The rationale for the NAMA acceptance was primarily based on the potential for incremental green investments to generate life cycle carbon emission reductions directly related to construction and operations.

The NAMA has also been successful in attracting a credit line to support green mortgages which provides additional market incentives for developers and homeowners through more favorable financing terms. However, the rationale for the credit line is based upon expected additional economic carbon abatement impacts associated with expected reduction in congestion in urban transport systems during housing construction. Approval of the EcoCasa credit line also took into



consideration the positive marginal carbon abatement investment impacts of green housing when compared to other abatement opportunities such as renewable energy.

NAMA title	Country name	Stage	UNFCCC registered	Sector
Domestic Refrigerators NAMA	Mexico	Under development	FALSE	Buildings
Energy Efficiency Improvements in Public Buildings	Serbia	Under development	TRUE	Buildings
Energy Efficiency in Public Buildings Programme (EEPEP)	South Africa	Implementation	FALSE	Buildings
Energy Efficiency in Public-Private Buildings	Egypt	Under development	FALSE	Buildings
Energy conservation in the building sector	Tunisia	Under development	FALSE	Buildings
Habitat NAMA	Morocco	Under development	FALSE	Buildings, Energy
Improvement of old residential buildings envelope	Serbia	Under development	TRUE	Buildings
Introduction of metering system and billing on the basis of measured consumption in district heating sys	Serbia	Under development	TRUE	Buildings
Low Carbon Buildings in Georgia	Georgia	Under development	TRUE	Buildings
Low Carbon Urban and Housing NAMA	Costa Rica	Under development	FALSE	Buildings
Low Emission Schools	Mexico	Under development	TRUE	Buildings
NAMA for New Residential Buildings in Mexico	Mexico	Under development	TRUE	Buildings
NAMA for Sustainable Housing Retrofit	Mexico	Under development	TRUE	Buildings
Energy efficiency measures in the Mexican residential building sector	Mexico	Implementation	FALSE	Buildings
NAMA in the commercial refrigeration sector	Mexico	Under development	FALSE	Buildings
NAMA in the housing sector	Paraguay	Under development	FALSE	Buildings
NAMA in the urban residential sector	Mexico	Under development	TRUE	Buildings
Philippine Energy Efficient Low Cost Housing	Philippines	Under development	FALSE	Buildings, Energy
Promoting the use of Renewable Energy Solution for Households and Buildings in Rwanda	Rwanda	Under development	TRUE	Buildings, Energy
Smart Street Lighting Initiative (SSLI)	Indonesia	Under development	TRUE	Buildings
Solar Thermal NAMA	Uruguay	Under development	FALSE	Buildings, Energy
Sustainable Housing Programme	Uruguay	Under development	TRUE	Buildings
Sustainable Settlement Facility	South Africa	Under development	FALSE	Buildings
Sustainable and energy efficient building of Faculty of Architecture, Civil Engineering and Geodesy in B	Bosnia & Herzegovina	Under development	TRUE	Buildings
Uptake of Green Buildings through Green Building Rating Scheme	Philippines	Under development	FALSE	Buildings
Use of solar energy for domestic hot water production in Heat plant Meeuveld in Belgrade	Serbia	Under development	TRUE	Buildings, Energy

Figure 39: Residential Building Related NAMAs.

6.5 City Environmental sustainability impacts of affordable housing

The housing value chain is enormous with environmental sustainability linkages to almost all aspects of the urban macro economy. The absence of adequate Affordable housing and poor integration of low-income settlements into the city have enormous environmental sustainability impacts which hobble the potential for development of an inclusive economy and an attractive urban landscape. Informal settlements dispersed throughout the city and concentrated on the periphery increase traffic congestion, challenge utility service delivery such as solid waste management, and decrease social cohesion due to tenure issues.

Given the enormity of the subject, the following discussion centers on the key areas of urban transport and improving utility service efficiencies as indicators of the wider economic rationale for mobilization of climate finance for Affordable housing.

6.5.1 Utility Delivery Efficiency

Impact of Formalization and/or Upgrade

Housing programs that focus on formalizing services can result in cost savings to residents and utilities and improve community sanitary conditions. Informal dwellings are often not directly connected to utilities and receive services, such as water and electricity, illegally through third parties who on-sell them often at a significant premium or through theft. Informal connection to services is also costly to the utility service provider who must shoulder technical losses due to distribution inefficiencies and commercial losses due to theft. Informal settlements are also frequently a vector solid waste service delivery inefficiency. From a service efficiency standpoint, collecting solid waste strewn at multiple locations and not properly prepared for pickup is inefficient and increases operational costs (The World Bank, 2009).



Formalizing settlements and increasing densification of urban human settlements increase revenues and provide important service efficiency gains that contribute to cost recovery for utilities. Housing programs that promote densification and reduce informal utility connections have the potential to enhance cost recovery of utility services. Trubka 2010 for example, estimated that provision of electricity to urban centers, where with denser development, is over 50% cheaper than provision of electricity to suburban areas. However, provision of cost-efficient utility services to larger multi-family dwellings, such as apartment towers, requires that constrained utility capacity within a city is expanded. Utility capacity can only be expanded through costly infrastructure upgrades or demand side efficiency programs. Hence, programs that formalize utility connections and incentivize urban densification of human settlement through large housing projects must be implemented simultaneously (Butera, 2016).

The cost recovery implications for utilities associated with the provision of housing and better integration of the poor in urban communities has long been recognized in shelter finance programs. Affordable housing programs that target informal settlements to improve housing quality and utility services delivery quality can significantly improve cost recovery for utility companies. For example, in an informal Sao Paulo Settlement, a program funded by USAID in partnership with the electric utility was implemented to formalized electricity service for a community of 3,882 homes. The program was highly successful reducing significant technical and financial losses for the utility and improving service reliability and safety for residents. The initiative increased utility revenue by 97% and decreased energy losses. It is estimated that the improvement in the efficiency of utility delivery resulted reduced energy losses for the utility by 26% or 1.96 MWH / year and increased revenues by almost USD 900,000. As part of the program, the participating homes also received energy efficiency retrofits which also delivered energy savings (Nexant, 2009).

From a climate finance perspective, reducing technical losses in the delivery of water and electricity can be translated into GHG emission savings. Electricity that is delivered to higher density developments with higher quality electrical distribution infrastructure can reduce electricity energy waste by 15% to 30%. The same can be said about water delivery where higher density connections to more efficient piped delivery can reduce electrical energy from pumping significantly.

Subsidy Impact

The cost of providing affordable utility services to low income populations in Phnom Penh is substantial. Nationally, EDC has stated that the utility subsidizes approximately USD 100 million per year in electricity costs. Realistically, dwellings that incorporate moderate levels of green features can easily save up to 20% of electricity costs from the point of view of the meter and even more when taking into consideration technical distribution losses associated with informal connections and theft. These savings can have a huge impact on improving cost recovery for EDC.

Solid waste management and water utilities are other areas where cost recovery is challenging in Phnom Penh. For these services especially, any demand reduction equates to a cost reduction to government which are transferred to other customers through cross subsidies and taxes. Uncontrolled urban sprawl and increased demand for water through poorly planned urban distribution networks has been shown to increase energy intensity of water supply and non-revenue water which increases overall service costs. Dense, mixed-use urban development projects incorporating housing has been shown to decrease the energy intensity of urban water networks. Studies of urban sprawl in Spain and comparative studies across Denmark, France and Sweden show that compact urban forms reduce losses from leakage, reduce pumping energy required for distribution and decrease cost of maintenance (European Environment Agency, 2015). Affordable housing developments that also integrate social enterprise into their business model can include innovative waste management services that include on site recycling which further reduces the burden on solid waste manage services.



6.5.2 Transport Impacts

Support for Sustainable Transport

Well planned green Affordable housing developments integrated with urban transport master planning has the potential to reduce economic inefficiencies related to urban congestion significantly. Looking at the development trajectories of South Korea, Singapore, and Hong Kong, integration of Affordable housing development and transport strategy has improved urban economic connectivity for those that work in the services sector and empowered low income human settlements to enhance the strength of the urban economy. However, quantifying the contribution of densifying Affordable housing to environmental sustainability through a market recognized valuation framework is difficult, but green rating system provide some hope for this by recognizing connection to transport and placemaking that facilitate circular economic activity (The World Bank, 2009).

Construction Transport Impacts

Green building labeling systems such as LEED, BREAM, and Green Mark, award points for design practices which reduce the embedded energy and waste associated with construction. Building systems can integrate prefabricated assemblies that produce significantly smaller amounts of construction waste which reduce the number of trips made to a landfill site. Other techniques include innovative use of on-site materials such as manufacturing stabilized rammed earth bricks on site which reduced embedded energy related to transport a high energy manufacturing techniques associate with conventional cement blocks.

IADB granted a credit line to underwrite green mortgages for the Mexican Ecocasa project partly due to the expected reduction in energy related carbon emissions associated with recuing constructed related transportation. The IADB reasoned that the marginal abatement cost associated with reducing construction related transport energy use would have a positive return on investment over the 1.5° C climate change scenario period through 2030. The precedence of the Ecocasa credit line has important implications as it links the construction of certified green dwellings to wider environmental sustainability impacts in the macro economy of Mexico and enabled mobilization of climate finance to significantly reduce Affordable housing lending costs.

6.6 Conclusions

Affordable housing is a key part of greening a city and must be mainstreamed into all development planning including transport, built environment transformation, city utility management, and preservation of ecosystem services critical for quality of life and urban climate resilience. Implementing the large, strategic transformations to implement the Phnom Penh Green City planning vision, requires a comprehensive, long term planning approach led empowered local government institutions with strong national support. Mobilizing significant climate finance to support implementation of transformative green city initiatives, including provision of adequate Affordable housing, the city must build private sector investment confidence. To accomplish this, the city of Phnom Penh to demonstrate the commitment of supportive policy and regulatory framework and continue improve capacity for good management of infrastructure and enforcement of a fiscal regime that can generate strong municipal revenues.

The City of Phnom Penh has made strides in terms of planning, city operations and fiscal management. However, there are still significant barriers for the city to attract the level of climate-linked investment that could facilitate scaling up of Affordable housing to meet current needs. The



following is a summary of key barriers that must be addressed for the city to mobilize climate financing to significantly reduce housing costs.

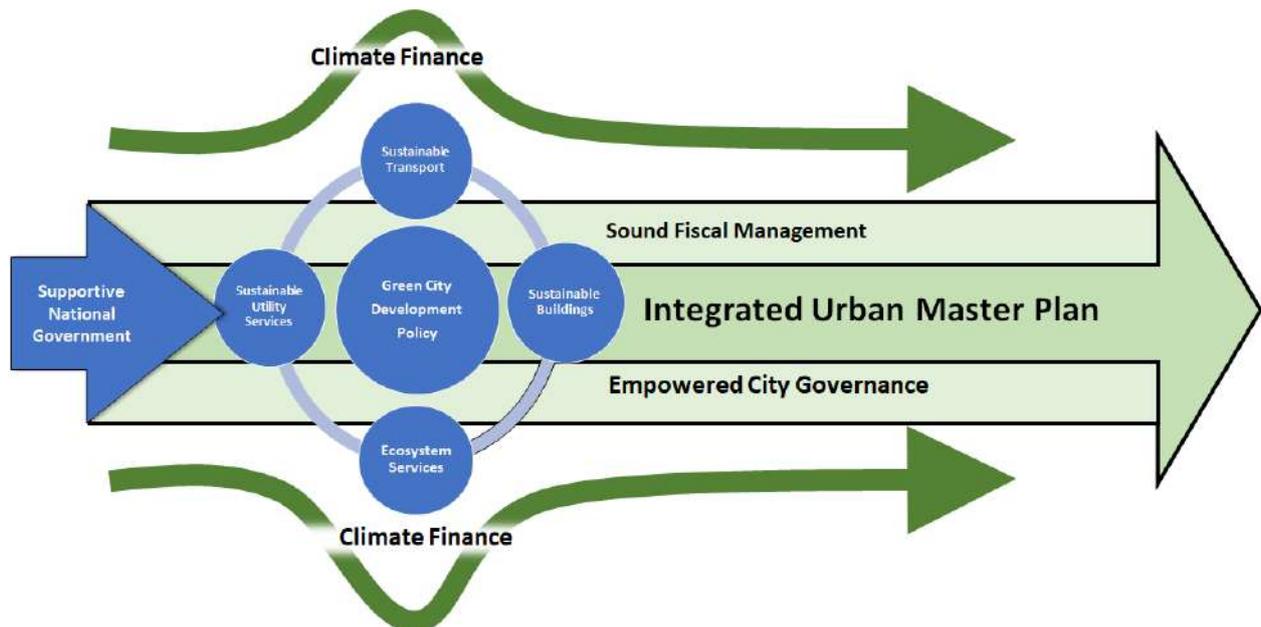


Figure 40: The supportive role of climate finance to integrated urban planning.

6.6.1 Policy

Several green growth policies that underpin mobilization of climate finance are in place in Phnom Penh, such as the 2014 Transport Urban Transport Plan and the Phnom Penh Green City Strategic Plan 2017-2026. However, these plans have not been combined into a single integrated urban master plan that coordinates spatial planning with wider social-economic and strategic sectorial planning. Coordination with sectorial planning areas such as electricity, waste management, and building sector development is critical to ensuring that component policies are complementary and move forward green city development. The result is a fragmented approach to city development which is inefficient.

For greening the housing sector, there must be good policy coordination and coherence between the city, sub-national, and national levels. City policy planning activities which inform the need for low energy building development, should be well integrated into national green building initiatives to ensure that green building standards especially support housing affordability objectives. Green building standards can complement wider green planning initiatives such as encouraging circular economy and increasing access to green space. It is important to link green building standards and rating schemes to wider green development policy objectives.

6.6.2 Governance and Institutional Arrangements

The 2005 National Strategic Framework for De-concentration and Decentralization in Cambodia put into play action actions that have given much more autonomy to the city in terms of operational management. However, from a planning and fiscal management perspective, ambiguities pose a



critical barrier to empowering the city to make the transformational changes necessary to achieve a long term and lasting green growth trajectory. Green growth requires that transport plans and general spatial planning are coordinated to achieve strategic socio-economic goals, such as ensuring that land is made available for dense, mixed use developments which can accommodate affordable housing. However, spatial planning and social economic planning are still poorly coordinated.

From a fiscal perspective, the city must have the authority and autonomy to ensure good revenue generation from fees and taxes and issue debt to fund transformative development initiatives. Currently, the roles of city finance are still unclear between the central and city government.

6.6.3 Capacity and Expertise

Green city development is complex and requires extensive technical resources to be in place to support putting plans into action. Great expertise is needed for activities such as development of feasibility plans, piloting projects, design of innovative financing arrangements, good technical and fiscal management of infrastructure and services and ensuring that monitoring reporting and verification on key performance metrics are completed. The current capacity at the city of Phnom Penh for planning and managing complicated infrastructure projects and ensuring good services delivery needs to be strengthened. Attracting climate finance requires that the city invest and retain such expertise on staff for the long term.

6.6.4 Fiscal Management

Attracting investment for municipal development also contingent on a city demonstrating its capacity to manage existing infrastructure and services in a way that is efficient and supportive of fiscal sustainability. The city needs to have the authority and jurisdictions to levy taxes, collect fees, and generate revenue through permitting is important for attracting municipal investment. The capability of a city to generate and maintain cash flows needed to manage infrastructure and maintain city services is an important risk indicator for investors. Currently, there is still ambiguity in authority between the national, subnational and city regarding taxation, fee collection and permitting within Phnom Penh. This ambiguity sends a signal to potential investors that the city may have challenges controlling cash flow for servicing debt and hence reduce access to climate finance flows from private sector sources.



7 AN ECOSYSTEM APPROACH FOR DEVELOPING INNOVATIVE SOLUTIONS TO AFFORDABLE HOUSING

This section aims at unpacking the various fields and stakeholders embedded in the affordable housing field and how, by adopting strategies specific to each income groups, each actor could bring leverage to improve access to adequate housing for all.

7.1 Affordable housing as a value chain: stakeholders' capacity of intervention and limitations.

"[Affordable housing] is a value chain: we cannot consider things separately. We need to create a system where all the factors integrate. Different stakeholders need to work together."

Developing affordable housing requires a multidimensional approach (figure 41), allowing for optimal cooperation among all related stakeholders (figure 42).

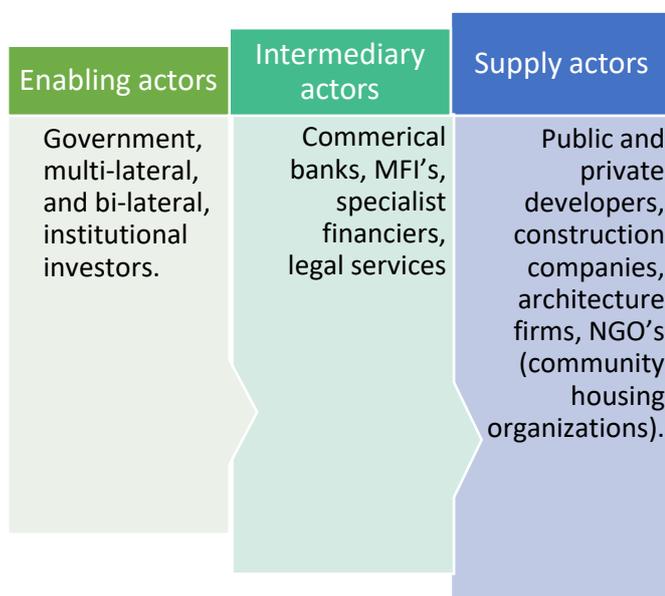


Figure 41 – Affordable housing stakeholders by ecosystem function

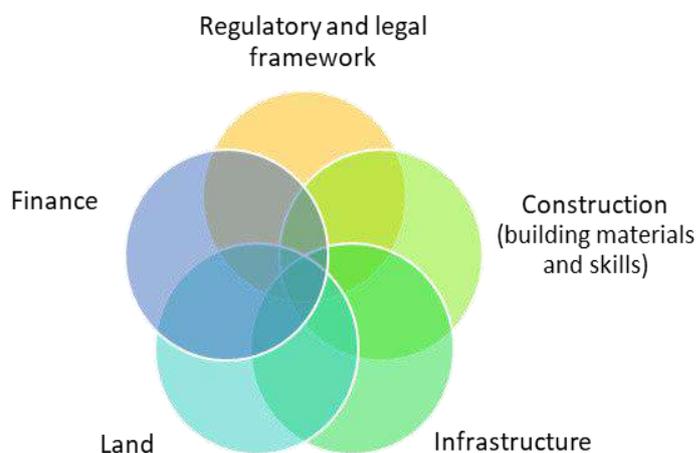


Figure 42 - Affordable housing parameters

Estimating affordability based on income (section 3) allowed to identify the income groups currently served, partially served or excluded from the current market (presented in percentiles below, Percentile 1 (P1) representing the poorest 1% of the population and Percentile 100 (P100) representing the richest 1% of the population), as illustrated on figure 39 below. As previously demonstrated (section 4), the offer is extremely reduced for the 50% of the population which earns



more than the poorest 25% but less than the richest 25% of the population (between P25 and P76). For this group to be able to access affordable homeownership, housing units should price between \$15,000 USD to \$35,000 USD (refer to section 3.3.2).

For the poorest 25%, there are no housing solutions that exist at scale. Some projects (refer to section 3.3.1) are exploring various ways to cater to this disparate groups of households, however innovative co-constructed solutions must be developed with all stakeholders in order to secure adequate housing for this group, and overall improving Phnom Penh’s long term image and urban sustainability.



Figure 43 - Estimated number of households per type of housing within the Phnom Penh housing continuum

Currently these two groups are underserved because stakeholders, within their respective typology, face multiple limitations. However, working on developing sustainable affordable housing opens various opportunities for stakeholders. Table 16 below presents the main challenges and opportunities identified for each stakeholder group in the affordable housing sector.



	Current limitations	Opportunities
National Government	<ul style="list-style-type: none"> * The 2035 Land Use Plan for Phnom Penh implementation challenges relating to transparency issues in the land market * No control of financial markets (dollarized economy), monitoring role only. * Extremely limited market intervention: little to no current experience on public-supported funding / de-risking mechanisms. * Current legislation developed an incentive mechanism, which is considered as a way for testing the grounds in the field - legislation has no coercive dimension for developers. * Capacity of Quality control and monitoring is limited for both housing and infrastructure construction - can lead to unsustainable urban development. 	<ul style="list-style-type: none"> * The legal framework is overall well-developed to improve urban planning, ensuring the provision of land for affordable housing and including a strong environmental approach to neighborhood planning. * The gradual professionalization of the construction sector can allow for implementation of green standards, especially for affordable housing, to be integrated into future plans. * Increase quality control on construction sites, with special attention to projects which integrate affordable housing. * Further develop incentives for developers to invest in affordable housing. * Introduce quotas for affordable housing units within all real estate projects.
Local Government	<ul style="list-style-type: none"> * Incomplete decentralization does not allow the Municipal Government to deliver building permits over 5000m²; still limited financial autonomy (strict control from MEF). * Infrastructure development and management segmented between numerous levels of public authority, increasing in complexity for efficient and rapid implementation. * Sensitive politic involvement in previous financial tools for UPS upgrade (corruption). 	<ul style="list-style-type: none"> * Localize further land management at PPCA level. * Create a municipal technical unit in charge of supporting improvement of inadequate housing and well as upgrading urban poor settlements. * Support urban planning at Khan and Sangkat levels to integrate affordable housing. * Identify areas most in need of affordable housing and advise the national commissions working on land and real estate project instruction.
Multi- and bi-lateral actors	<ul style="list-style-type: none"> * Align on Gov't priorities (affordable housing is not top priority). * Since graduation to lower-middle income group, available grants have reduced, loaning tools remain. Limits the Gov't interest and the capacity of intervention of the non-for-profit sector. 	<ul style="list-style-type: none"> * Support upgrading and urban renewal efforts, and overall enhancing urban sustainability, through financial support by scaling up existing or piloting new housing projects for the poorest 25%. * Provide guarantees to support housing programs to scale and attract invest the affordable housing market.
Commercial banks	<ul style="list-style-type: none"> * Align on Gov't priorities, focusing mainly attention on income generating activities and business support. * ROI is defined by international investors, limiting risk taking possibilities. * Limited partnership experience with Gov't to develop first capital loss mechanisms 	<ul style="list-style-type: none"> * Strong inclusion in the international banking networks allow for mobilizing green and social funds for developing specific financial tools for supporting both production and end users' access to sustainable affordable housing finance solutions. * Lower interest rates to lower end markets and build experience and lessons learned to properly assess applications.
MFIs	<ul style="list-style-type: none"> * Focused on income generation, generally in rural areas: the demand for "unproductive" loans is growing, but limited to generally maximum 25% total loan portfolio. * Capacity sometimes limited in guaranteeing ethical lending practices (high competition on the MFI market). 	<ul style="list-style-type: none"> * MFIs already loan money for improving and building housing: the development of new financial tools can build on current experience and lessons learned from current practices. * Develop financial inclusion for housing allows for renewed attention and improvements of ethical lending practices in the microfinance sector.



	* No support from de-risking mechanisms for access to housing.	
Specialist financiers	* Impact investment massively present in Cambodia in the MFI sector. Absent from much of the remaining areas of the economy, including housing: no impact investor has experience working on affordable housing in Cambodia.	* Diversify impact investment portfolios in Cambodia to include the housing sector.
Private developers	* Land prices: high speculation on the land market have led to soaring land prices in the past two decades. High land prices directly impact the capacity to deliver the price of housing delivered. * Profit-driven: developers are generally more interested in maximizing profit rather than delivering for purpose. * No specific financial tools designed to secure housing purchase.	* Further build capacity in terms of sustainable approaches to affordable housing. * Engage is the emerging affordable market in the country by developing specific business models. * Actively participate in the sustainable development of cities around the country.
NGOs	* Do not have financial capacity to invest the field (land purchase). * Reliant on sound cooperation with all levels of public authority for implementation (political mandate span VS time needed for housing development can be sensitive). * Function on a project-based approach; while affordable housing requires a broader approach in order to secure scaling possibilities.	* Mobilize expertise for supporting national and local government levels for developing sustainable affordable housing projects. * Implement pilot projects, and study potential for scale-up * Develop innovative financial tools for the poorest 25% of the urban population.

Table 16 – challenges and opportunities for stakeholders in the development of affordable housing in Phnom Penh

Based on stakeholders’ roles, responsibilities and competencies, there are high potential opportunities for co-constructing affordable housing solutions amongst stakeholders. As illustrated in figure 44 (below), developing affordable homeownership, affordable rental and community housing (intended here in a broad understanding designating non-industrial housing solutions), which constitutes sustainable housing solutions for those who can afford to housing through the market alone, requires the participation of all stakeholders.



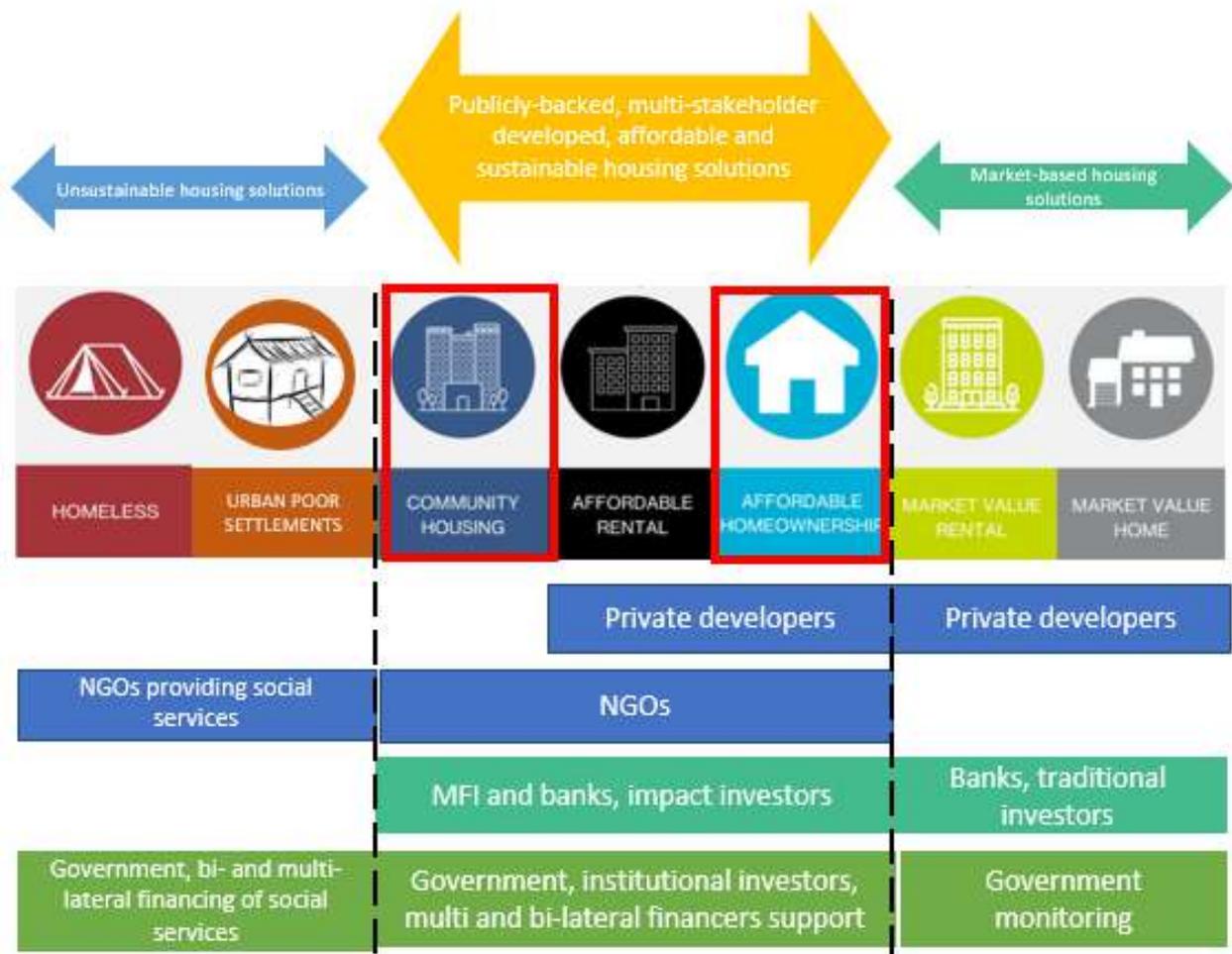


Figure 44 – The housing continuum: who can support providing what type of housing?

7.2 Improving the affordable housing ecosystem: setting priorities and engaging in leveraging solutions.

7.2.1 Setting priorities

The housing continuum in Phnom Penh is highly diversified - people call home come in various shapes, sizes, quality and locations. For Phnom Penh to reach its ambition of becoming a sustainable regional capital in the next decade, solutions to ensure social and economic inclusion of all residents must be developed. Affordable housing in one of the major areas to invest in order to reach this goal. Based on estimations of what affordable housing is for households in Phnom Penh (section 3) and on the estimation of housing needs (section 4), four main priorities for developing the affordable housing stock emerge:

- Priority 1: Securing access to affordable market-based and publicly backed housing for households from P25 to P75.
- Priority 2: Supporting community-owned and/or managed housing, either as a result of UPS upgrades or newly developed, government-backed initiatives.



- Priority 3: Structuring and developing an affordable rental market.
- Priority 4: Developing a city-wide upgrading program of deteriorated squalid buildings.

These priorities are numbered to enumerate the different fields of affordable housing to invest, and not by order of importance: all fields must be approached at the same time. If solutions are developed for the poorest 25% of the population but the needs of the large 50% of the households earning between \$5,000 USD and \$13,000 USD are not catered for, this group will capture housing products developed for income categories lower than theirs.



Figure 45 - Priority interventions for developing the affordable housing ecosystem to ensure adequate housing for all.

Priority 3 “Structuring and developing an affordable rental market” and priority 4 “Developing a city-wide upgrading program of deteriorated squalid buildings” hold strong leveraging potential to increase adequate, sustainable and affordable housing solutions in Phnom Penh. However, there is currently a lack of data on these topics.

The following sub-section suggests a series of interventions to leverage stakeholders’ capacity to improve overall access to decent affordable housing for all.

7.2.2 Leveraging efforts for developing affordable housing solutions

Across four main areas of intervention, sixteen actions are suggested to reach the at least two of the four priority areas which need attention to allow the creation of a truly affordable and inclusive housing offer. They are presented in figure 46 below and developed in the following sub-section.



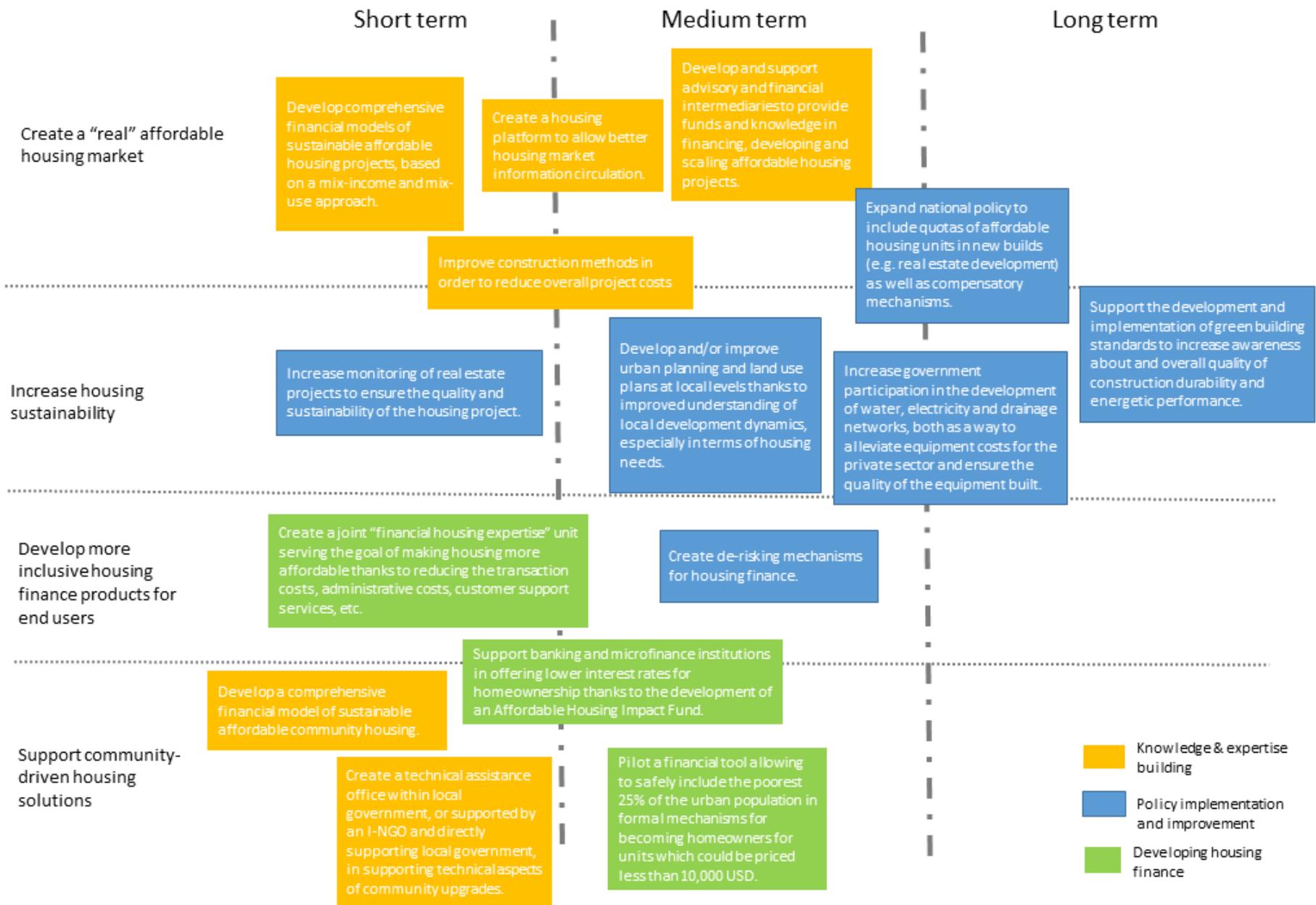


Figure 46: Timeline of recommended actions across the four main areas of intervention.

Create a “real” affordable housing market

Private sector developers and investors are profit driven. If the ratio of profit can be discussed – how much profit is socially and morally acceptable in the given context – the logic is not. Demonstrating the potential of profit-making with affordable housing projects would allow to draw more attention from developers for this large market segment. Creating such markets usually require a notable involvement from the Government, supporting in various ways, such as subsidies, guarantees schemes or more affordable loans. The fluctuations of the “normal” housing market can also play as an influencing factor: when this market becomes over-crowded, developers will start to explore and scout for new opportunities, as was seen in Brazil or India. Cambodia is however a much smaller economy, with largely different dynamics at play. In order to bring developers to view affordable housing as a market and not merely as corporate social responsibility (CSR), various actions can be developed in order to actively engage with stakeholders.

- 1) Short term: Selecting specific target groups (such as garment workers or young civil servants), develop comprehensive financial models of sustainable affordable housing projects, based on a mix-income and mix-use approach. Models should consider mixed-income dwellings that leverage green finance and cross-subsidies development. This type of action could be commissioned by international organizations, relevant ministries or international non-for-profits operating in the housing sector, and implemented by a team of experts working across the fields of housing, urban planning and green construction.
- 2) Short term: Explore room for improvement in construction with the support of local design, engineering and construction service providers, with the necessary qualifications to compete against multinational companies, in order to reduce overall project costs. This could include more advancement in construction methods, such as the use of pre-cast concrete, and design/development of prefabricated houses. Public-private partnerships could support training and capacity building to address skills shortages in the construction sector.
- 3) Short to medium term: Create a housing platform to allow better housing market information circulation. This would allow to better characterize demand and enable prospective homeowners to make the better choice based on their personal situation.
- 4) Medium term: Working with financial institutions, both public and private, develop and support advisory and financial intermediaries to provide funds and knowledge in social financing, developing and scaling affordable housing projects. Funds could transfer through a publicly-owned specialized financial institution or in partnership any private sector banking institution (microfinance or commercial) who is willing to invest in the long-term development of this market segment. This type of intervention should be supported by the national financial institutions, such as the National Bank of Cambodia or the National Social Security Fund, international organizations specialized in impact investment (SDG 17), as well purpose-driven financial institutions from the private sector. Its success requires strong commitment from developers interested to engage in affordable housing beforehand.
- 5) Medium to Long term: Expand national policy to include quotas of affordable housing units in new builds (e.g. real estate development) as well as compensatory mechanisms. For instance, developers can choose to include such units in new builds or, if they opt out, should then instead contribute financially to an affordable housing fund, or similar tool, to allow the State to reinvest in other affordable housing projects.



Increase housing sustainability

As developed in section 6, sustainability in affordable housing is strongly linked to sound urban planning as well as the ways and the quality of construction. The quality of the urban fabric, which usually translate in a well-connected area allowing to access economic opportunities as well as basic services (water, electricity, waste management, education, health) relies mainly on urban planning efforts and adequate infrastructure. As mentioned before, some of the cheaper prices boreys currently, and housing developed since the 90's in small, sometimes one-shot, development operations, are lacking in quality, both in terms of construction itself and in terms of insertion to the urban fabric. Policy actions should include green building standards, provide strong incentives for green building retrofits, integration of transport planning, ensure preservation of quality green spaces, and an over-arching system for collecting data on key metrics and measuring progress on city wide sustainable development goals. The following actions can support gradually improving urban sustainability as a whole, with a specific attention brought to the sustainability of the housing stock, especially the cheaper priced housing units.

- 1) Short to medium term: Increase monitoring of real estate projects to ensure quality and sustainability of housing projects. This should be carried out both at national, capital and district levels, based on the type of construction permit required. This type of intervention should be requested by Municipal and/or Ministry levels, possibly supported by international organizations and international cooperation actors for initial funding, implemented by international and national construction expertise.
- 2) Short to medium term: develop and/or improve urban planning and land use plans at local levels thanks to improved understanding of local development dynamics, especially in terms of housing needs. This type of intervention should be requested by Municipal and/or Khan levels, possibly supported by international organizations and international cooperation actors for initial funding, implemented by urban planning expertise.
- 3) Medium to long term: support the development and implementation of green building standards to increase awareness about and overall quality of construction durability and energetic performance. Increasing energy efficiency and durability of existing buildings (retrofitting) could be further analyzed to identify possible opportunities in this area. This could be developed at national level and/or piloted at the capital level, with support from relevant ministries. This type of intervention should be supported by international organizations and relevant international cooperation actors for funding, expertise and implementation monitoring. Sister cities partnerships could also prove strong supporting actors in such a field. Developers and construction companies should be closely associated in the journey of greening Cambodia's construction sector.
- 4) Medium to long term: in order to support developers in their efforts of developing affordable housing units, increase government participation in the development of water, electricity and drainage networks, both as a way to alleviate equipment costs for the private sector and ensure the quality of the equipment built. This would suppose strong technical support from a government and financial perspective: various levels of public authorities are responsible for financing, supervising and eventually hiring construction companies to build networks, which are financed from respective budgets. This requires a land use plan to be developed beforehand in order to guide and include in budgets the needed infrastructure. This type of intervention should be requested by Municipal and/or Khan levels, possibly supported by international organizations and international cooperation actors for initial funding, implemented with the support of urban planning and urban management expertise.



Develop more inclusive housing finance products for end users

Current lending practices are rather conservative (refer to section 5). Commercial banks lend on average at a monthly interest rate averaging 8% with a tenor reaching maximum 15 years, and MFIs lend with a capped interest rate of 18% with tenors reaching maximum 10 years. For loans above \$1,000 USD, a collateral is requested, which consists in a very large majority of cases of a property title. In order for formal lenders to be more inclusive, lending practices should innovate in partnership with civil society actors and philanthropic donors, to explore new lines of credit to low-income markets at below market returns (e.g. offering lower interest rates for low-income customers) as a starting point to increasing financial inclusion for accessing to housing.

- 1) Short to medium term: Create a joint “financial housing expertise” unit resulting from the collaboration between commercial banks, microfinance and development stakeholders with the goal of making housing more affordable thanks to reducing the transaction costs, administrative costs, customer support services, etc. This might take the appearance of a “One window service” for housing finance. It would offer services to both developers and end users by supporting in the identification and orientation of customers towards the more adapted financial products, facilitation of agreements with employers (as a potential replacement to a traditional collateral), assist with opening bank accounts, support in the acquisition of housing documentation, such as land titles, conduct valuations of housing typologies and all other relevant tasks. This could be piloted by a consortium of bank(s), MFI(s) and developers(s), and facilitated by an I-NGO. Professional organizations such as the Association of Banks of Cambodia, and the Cambodian Microfinance Association could be closely associated to the initiative. It would need support from international cooperation actors to kick start.
- 2) Short to medium term: Support affordable housing developers increase housing supply; and banking and microfinance institutions in offering lower interest rates for homeownership. Introducing an Affordable Housing Impact Fund could support developers and lenders, using different structures, such as a revolving fund, social impact bond, local currency bonds or blended finance models involving private equity and philanthropy. For example, a revolving fund allows for funds to be recycled for further investment into land and housing. Alternatively, buying local bonds can provide the necessary funds to lenders to allocate to affordable housing development or loans . In a blended finance model, investments could be made with affordable housing developers, offering working capital and first lost capital to reduce to upfront predevelopment costs and, in turn, reduce the cost of housing. Such a fund could be piloted by an international NGO and a range of investors and partners as part of an innovative funding mechanism. Professional organizations such as the Association of Banks of Cambodia, and the Cambodian Microfinance Association could be gradually associated to the initiative. Such a project might need support from international cooperation actors to kick start if I-NGOs internal funds are not sufficient, and should then be able to galvanize impact actors to invest in the fund.
- 3) Medium to long term: Establishment of a dedicated housing finance and investment facility, with a focus on affordable housing . This would offer loans for maintenance and purchasing with the intention of reducing the cost of finance for affordable housing developers, encouraging more developers (for-profit and non-profit) into the market and enhancing the supply of affordable housing. Given the current on-going experiences (creation of the SME bank and the Credit Guarantee Scheme in the wake of the COVID-19 induced economic crisis) which involves government backed guarantees, is generally viewed by lenders as critically important in responding to risks including borrowers defaulting.



Support community-driven housing solutions

Solutions must be urgently developed to answer the current and future needs of the poorest 25% of the population. Community-driven housing solutions can take on various forms, from urban poor communities onsite upgrading, to possible relocation on newly developed sites, to the upgrading of existing squalid buildings, to the development of housing in dense employment zones such as special economic zones or zones of implementation of garment factories.

- 1) Short term: Selecting specific target groups (such as garment workers or an urban poor community), develop a comprehensive financial model of sustainable affordable community housing project upon request of main stakeholders – employer, Capital Administration, the State to ensure access to land and with the support of relevant field actors such as local and international NGOs. The Boeng Tumpun community upgrade project developed through the Human rights based spatial planning project and implemented by People in Need could be used a basis to model upgrading costs for other communities or neighborhood upgrade.
- 2) Short term: Create a technical assistance office within local government, or supported by an I-NGO and directly supporting local government, in supporting technical aspects of community upgrades. Support would include technical aspects such as design, construction, resilience and sustainability, and pricing of housing as well as neighborhood infrastructure. This is currently being piloted by Phnom Penh Capital Administration under the Stung Meanchey Community upgrade project and could be scaled up thanks to continued support from current donors and partners (EU, AIMF and City of Paris) or new donors supportive of such an initiative. Partnerships with construction material companies, and eventually small developers, could be developed to increase the quality of delivered construction thanks to capacity building. Such an initiative should be coordinated with social and financial support mechanisms for the households, which could either be provided by the Urban Poor office of PPCA or selected international and/or local NGOs. An additional role of financial assistance to lower levels of public administration (district and commune) could be included, to ensure construction and maintenance costs of neighborhood infrastructure be well provisioned for. Budget for neighborhood infrastructure should be covered by the Commune Fund⁷⁵, but could be supplemented thanks to specific funding mechanisms dedicated to neighborhood infrastructure upgrades – for instance through international cooperation backed loans taken out by Government.
- 3) Short to middle term: Based on past and current experiences of community finance and microfinance for the poorest, pilot a financial tool allowing to safely include the poorest 25% of the urban population in formal mechanisms for becoming homeowners for units which could be priced between US\$2,500 (estimated price of a wooden stilt house developed by the PED-led Housing Improvement project) to \$12,000 (estimated price of a two story house

⁷⁵ Sangkats receive all their budget from the national government – centralized in the Commune Fund and allocated by decision of the Commune Fund Board, in which all relevant ministries participate to decide on the allocation of annual budget for each commune. Budget is allocated according to three criteria: 1) flat rate for all communes (“equality”), 2) according to the population and 3) according to the Poverty index rate of the commune. The government has announced this year that the Commune Fund will continuously increase in the years to come. Annual national contribution to the Fund will represent 2.8 % of annual national revenue, allowing certain communes to obtain up to 500 000 USD annual budget by 2030 (quid year). Currently, annual commune budgets are about 130 000 USD. *Source*: Association of Subnational Authorities of Cambodia.



designed by the PIN-led Boeng Tumpun project). The Urban Poor Development Fund (refer to section 5) and the current MFI products development through the partnership of I-NGO Planete Enfants et Développement and MFI Chamroeun, can support to design and test innovative lending mechanisms for the poorest. Additionally, the Affordable Housing Impact Fund suggested above could contribute in the development of required guarantee mechanisms for this target group.

7.2.3 Filling the knowledge gaps: recommended research to conduct.

This study highlighted the gaps and limits of existing data sets on housing, as well as the urgent need to develop publicly accessible data bases on both demand and offer sides in order to be able, as a first step, to develop more specific and detailed analysis and comprehension of current practices in urban planning and construction of housing, and, as a second step, to formulate the adapted strategies and take appropriate action to develop affordable housing market segments, to reach the overarching goal of developing an inclusive and sustainable city.

To carry, centralize and render visible research on housing, it would be interesting to create a specific, interdisciplinary research program or unit as a collaborative effort from university departments in Phnom Penh which would include architecture and urban planning, infrastructure and construction, public administration and public finance, humanities (sociology, anthropology, urban geography...) as well as social business and investment. Tenured and visiting professors and researchers, Cambodian and international, could offer seminars and classes on affordable housing to a wide range of students in order to build knowledge and understanding the complexity of the housing ecosystem, the role of affordable housing and possible options and leverage to develop more. Such an actor might be able to develop a special relationship with governmental agencies and ministries to support them with data management and eventually release it, if not publicly, at least make it available on an academic level for carrying out research.

Notwithstanding the existence of such an actor in housing research in Phnom Penh, the following studies are suggested as starting points to develop a more comprehensive approach to the issue of affordable sustainable housing.

- A comparative study between demographics and housing typology would allow to understand what type of housing units have been developed in the past fifteen years, where have they been developed and who has bought these units. This could then lead to a prospective study: with support from demographic growth projections, identify what type of housing units are needed in which areas of the city in order to ensure a sound urban functioning.
- A city-wide urban survey on the quality and sanitary conditions of the existing housing stock, with a focus on construction dating from before 1979, as well as a focus on construction dating from before 2010. The survey should not only look at the state of individual buildings but take into account the functioning at the block and neighborhood scale. This would allow to identify the housing stock and neighborhoods in need of various degrees of urban upgrade, ranging from building renovation to improved neighborhood infrastructure (for instance to increase resilience to flooding). This would equally allow to quantify and support budgeting efforts for local infrastructure improvement.



- A study on past and aspired-for residential trajectories of the urban population of Phnom Penh would help better understand where, why and how people choose to live where they are, as well as support the development of the housing market, which could provide a more tailored offer to urban dwellers. Such a study should focus on the potential and actual residential and life strategy evolutions when households living in land or housing insecurity finally manage to get access to a property title.
- A study on the rental market in Phnom Penh is highly necessary to better understand the practices, both in terms of offer and demand, and identify the potential for supporting it to play a pivotal role in urban inclusion.
- Finally, a study on the implementation of the existing affordable housing policies in relationship with current and planned deconcentration and decentralization frameworks, coupled with existing public finance laws, would allow to identify the possible leverage points in public support for affordable housing as well as identifying the gaps and necessary remediation points needed for an affordable housing offer to kick off.

These research suggestions would represent interesting steps to further developing knowledge on housing dynamics in Phnom Penh, and would allow to better orientate and position support for the development of an affordable housing stock. However, many other angles, topics and approaches on housing remain needed in order to continue building knowledge and understanding. Research in action, allowing to study piloting actions, also present numerous advantages in the context of a rapidly evolving city.

7.2.4 Conclusions

Thanks to a closer look at challenges faced by the affordable housing ecosystem – or value chain, opportunities and ways to leverage existing networks and know-how emerge. Across four main areas of intervention, fifteen actions are suggested to reach the at least two of the four priority areas which need attention to allow the creation of a truly affordable and inclusive housing offer. A suggested time frame for developing the suggested actions, from short to medium to long term. However, in all cases, all stakeholders will have to participate more or less actively for these actions to take form and leverage impact. Ultimately, this relies on stakeholders' interest, might it be disinterested or guided by law or profit. Political support from all levels is equally crucial to give a new impulse to develop affordable and adequate housing solutions for all.



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9 ANNEXES



Annex 1: Example of interview guideline

KEY INFORMANT QUESTIONS

financial organizations

Affordable Housing Research

April – September 2020

**People in Need – Planete Enfants et Développement –
Global Green Growth Institute**



Instructions for Interviews

These surveys can be administered in a number of ways:

As prompting questions for semi-structured and key informant interviews

As self-administered questionnaires (e.g. completed by the participant in writing or online)

As prompting questions for focus group discussions

As guiding questions or themes for content analysis and statistical analysis

The complexity of affordable housing will be developed through the unpacking of the current housing ecosystem, with the end goal of identifying solutions for improvement, that is to make it more inclusive and sustainable, from economic, social and environmental perspectives.

The main purpose for discussing affordable housing in Phnom Penh will be to capture thoughts and perspectives from different stakeholders on the current challenges, bottlenecks and opportunities created by existing policies, approaches, and practices.

Of particular interest is the ways affordable housing can be accessed by vulnerable and marginalized groups and low-income families in urban areas. Each interview will be assigned a code to ensure personal identifiers are not revealed during analysis and write-up of findings.

All notes will be taken in English for the purposes of this research. Any difficulties interpreting or answering questions should be kept during the survey administration.



Purpose and Consent

Thank you for agreeing to talk with us about affordable housing ecosystem in Phnom Penh, Cambodia.

My name is Emilie Traub and I am one of the consultants supporting PiN, PeD and GGGI (the consortium) to learn more about the current the challenges and opportunities to address affordable housing. We are conducting interviews to develop the consortium's knowledge about affordable housing in Phnom.

During this interview, we will ask a series of questions about your work, with a specific interest in the work related to affordable housing in urban centers. This information will be used to inform a research report for the consortium and potentially support the development of tailored urban housing projects and partnerships in Phnom Penh.

We expect the interview will take approximately 45 minutes. Of course, you can withdraw at any point of the interview should you choose to do so.

With your permission, a note taker will make a detailed record of your responses for the research. The interview notes will be available to the research team, including key staff within the consortium. Findings that emerge from these interviews may be used in the final report and other publications internal and external to People In Need, Enfants Planete et Développement and the Global Green Growth Institute. We would also like to assure you that your confidentiality will be maintained. You will not be referred to by name in any reports, discussions or documents.

In the next few weeks, when we are analyzing all the interview responses, we may need to come back to you with follow up questions. Would you consent to this?

Before we start, do you have any questions about the interview process?

Interviewer Notes

IQ – Introductory Questions

RQ – Research Questions

AQ – Additional Questions (usually related to a specific theme)



Introductory Questions

We begin by asking some introductory questions, to help us understand your organization and role.

What is the name of your organization and department and/or team you work for?

IQ1. What is your organization's history, vision and mission: when was the organization created, with what goals and what target groups? What is your development strategy today? What is the current legal status of this organization?

IQ2. What is your role within the organization? What areas, functions or processes of the organization are you responsible for?

IQ3. Do you work in partnership with other financial institutions? With local NGO's, INGOs and international development actors? How are such partnerships beneficial for your institution?

IQ4. Is housing a sector you are currently working in (pre-COVID19)? What type of financial products do you offer in this field? Why do people borrow and how much time do they plan to pay back?

IQ5. If you do not yet work in the housing sector, have you / are you considering to work in it? Why?

Research Questions

RQ1. Who are your main clients for affordable housing (what type of loans or equity do you provide and for what purposes)?

RQ2. What do you consider are the key drivers for affordability problems in housing?

RQ3. From a finance perspective, how is / could housing affordability be addressed for lower-income households in Cambodia? Could you give examples?

RQ4. What are the affordable housing projects that your institution has been involved in or currently involved in Cambodia?

RQ5. What are/have been the possibilities and challenges to scale up these models?

RQ6. What financial inclusion strategies and tools currently exist or could be created to improve access to finance and affordable housing for low-income individuals, families and communities?

What does your organization need to do to improve to ensure low-income households can access affordable housing?

What are the current strategies in your organization to increase lending to lower income households for affordable housing?

How can your organization increase lending capacity for low-income households in a responsible way?

What type of insurance / collateral does your business ask low-income customers provide when borrowing money for housing?



What is the transactions costs and price for your services? What would be considered affordable cost or price for financial services to serve low income households?

How can loan security be improved for low-income households?

RQ7. How is COVID19 impacting your lending activities [in the housing sector]?

How will COVID19 effect your approach to lending in the future?

What will be the impact on interest rates?

Additional Questions (if time permits)

AQ1a. If you could create any tool in Cambodia in order to improve access to financial services, what would it be? Why?

AQ1b. Is there anything else you would like to add?

[END]



Annex 2: List of stakeholders interviewed

Financial institutions (MFIs & banks)

1 Amret

2 Prasac

3 National Bank of Cambodia

4 Chamroem - MFI

5 ACLEDA

International organizations, i-ngos, l-ngos and academia

6 Equitable Cambodia

7 United Nations Development Program (UNDP) Cambodia

8 Planete Enfants et Développement

9 University of Queensland

10 Independent urban researcher

Government

11 Ministry of Finance - PPP Unit

Development, construction and architecture professionals

12 World bridge

13 Arakawa

14 Borei Keila building management

15 My Dream Home

16 Independent architect



Annex 3: Market survey of 19 real estate projects in Phnom Penh – September 2020.

	Name of developer	Sales modalities	Name of borey	Location (khan / sangkat)	Type of housing unit	Unit price	Total surface	# floors	Year of construction	Borey amenities	Payment modalities	Monthly maintenance fee	Distance to Wat Phnom
1	Borey New World	real estate company	Kombol	Sangkat Kantaok, Khan Por Sen Chey		\$ 36,680	49 m ² (4.1x12)	E1	2018	Car parking, common area, garden, water tank	First installment 5 - 30 %	\$20-30 waste collection, security, garden fee, maintenance	10 km
2	Borey Pipop Thmey	real estate company	Kombol	Khan Kambol	Link House	\$ 48,000	56 m ² (4.1x12)	E0	2017	car parking, garden, water tang,	First installment 5 - 30 %	\$20-30 waste collection, security, garden fee, maintenance	
3	Vimean	developer	Vimean Phnom Penh	Sangkat Chrang Chomres I, Khan Russey Keo	Flat House	Start from 50,000	68.8 m ² (4.3x16)	E1	2018	Car parking, common area, garden, backup electricity	First installment 10%	25\$ / m(waste collection, security, maintenance and park)	13-15 km
4	Vimean	developer	Vimean Phnom Penh Project 9	Sangkat Prek Anhchanh, Mukh Kampul,	Shop House	Start from 50,000	67.2 m ² (4.2x16)	E1	2017	Car parking	First installment 0 - 30 %	15 \$ (waste collection and security)	15- 16 km
5	Borey Chey Oudom	real estate company	Borey Chey Oudom, Chbar Ampov	Sangkat Preaek Pra, Khan Chbar Ampov	Link House	\$ 65,000	86 m ² (4.3x16)	E1	2018	Car parking, common area, garden, water tank	First installment 5 - 30 %	\$20-30 waste collection, security, garden fee, maintenance	10 km
6	Borey Lim Chheanghak	real estate company	Chouk Va 1	Sangkat Kork roka, Khan Preak Pnov	Link House	\$ 65,000	75.6 m ² (4.2x12)	E2	2018	Car parking, common area, garden	First installment 5 - 30 %	\$20-30 waste collection, security,	11.2 km



												garden fee, maintenance	
7	Five Stars Residence	real estate company	5 Starts Residence	Sangkat Dongkor, Khan Dongkor	Shop House	\$ 68,000	83.85 m ² (4.3x19.5)	E1	2017	Parking area and Green Space	50% First installment (the rest pay the next 18 months)	N/A	25-26 km
8	Mekong Phnom Penh Development Corporation	developer	Borey The Mekong Royal	Sangkat Prek Leap, Khan Chroy Chongva	Link House	From 70,000 USD	63.25 m ² (5x9.5)	E0	2018	Car parking	First Installment 30%	N/A	11 km
9	5LH Lorn City Development Co. Ltd.	developer	Borey Lorn City Lotussana	Sangkat Chaom Chao, Khan Porsenchey	Link House	\$ 86,500	43 m ²	E0					14 km
10	Borey Penh Huoth	real estate company	Chea Sopheara	hrang Chamreh Ti Muoy, Russey Keo	Link House	\$ 88,000	71.4 m ² (5.1x7.2)	E1	2018	Car parking, Garden	First Installment 40%	20-30\$ for maintenance and security	13 km
11	Borey Pipop Thmey	real estate company	Chamkar Dong	Sangkat Dongkor, Khan Dongkor	Flat House	\$ 96,500	129 m ² (4x16)	E1	2018	Car parking, Garden	First Installment 40%	20-30\$ for maintenance and security	22.9 km
12	Borey Varina Invesment Co.,Ltd.	real estate company	Borey Varina	Sangkat Phnom Penh Thmey, Khan Sen Sok	Villa	\$ 100,000	88 m ² (5x9)	E1	2019	Parking lot and Garden	First Installment 30%	N/A	14.3
13	Borey Lim Chheanghak	developer	Chamkar Dong	Sangkat Dongkor, Khan Dongkor,	Link House	Start from 100,000		E2	2019	car parking, green space, common space	First installment 20 - 30%	30 - 50\$ waste collection, security,	7.5 km



												garden fee, maintenance	
14	Borey Lim Chheang Hor	developer	Chaom Chao	Sangkat Chaom Chao II, Khan Porsenchey		\$ 123,000	71 m ² (4.15x12)	E1	2018	Car parking, common area, garden, water tank	First installment 5 - 30 %	\$ 20-30 waste collection, security, garden fee, maintenance	19.9 km
15	Borey New World	real estate company	Chamkar Dong	Sangkat Steng Meanchey, Khan Mean Chey		\$ 138,800	92 m ² (4x16)			Parking, Green space, Common space		N/A	11 km
16	Borey Penh Huoth	real estate company	Borey Peng Huoth The Star Natural	Sangkat Chak Angre, Khan Mean Chey		\$ 155,000	52 m ² (37.44)	E0 till E2		Parking and Green space	First Installment 30%	N/A	10 km
17	Borey Penh Huoth	real estate company	Borey Peng Huoth : The Star Platinum Rosato	Sangkat Niroth, Khan Chbar Ampov	Link House	Start from 150,000	61.2 m ²	E1	2016-2017	car parking, garden and common space	First Installment 30%	20 - 35 \$ for waste collection, security and garden maintenance	11 km
18	Borey Sambath Mean Heng 3	developer	Borey Sambath Mean Heng 3 - Project I	Sangkat Niroth, Khan Chbar Ampov	Link House	Start from 150,000		E0	2018	Car parking, garden	First Installment 30%	20\$ for waste collection, maintenance and security	19 km
19	Borey Pipop Thmey	real estate company	Chamkar Dong	Sangkat Dongkor, Khan Dongkor	Flat House	\$ 165,000	296 m ² (8x18)	E1 and E2		Car parking, garden, swimming pool and common space	First installment 20 - 30%	N/A	9 km



Annex 4: Banking and finance – legal framework, roles and responsibilities

Banking activities in Cambodia are mainly governed by:

1. the Law on the Organization and Functioning of the National Bank of Cambodia, promulgated in 1996 and amended in 2006;
2. the Law on Banking and Financial Institutions (Banking Law) promulgated in 1999;
3. the Law on Foreign Exchange promulgated in 1997;
4. the Law on Anti-Money Laundering and Combating the Financing of Terrorism (AML Law) promulgated in 2007 and amended in 2013; and
5. a number of implementing sub-decrees, regulations and circulars issued by the NBC.

The National Bank of Cambodia (NBC) “was established in December 1954, following the independence of Cambodia from France. The present legal basis for its operation is the Law on the Organization and Conduct of the National Bank of Cambodia, 1997. As the central bank, the NBC is responsible for setting and executing monetary policy and conducting related activities. The NBC also regulates and supervises banks and financial institutions, including in the interbank market, and oversees the country’s payment systems.”

The NBC performs the traditional role of a central bank, and all banking activities are under its exclusive jurisdiction. Its main functions are to:

1. conduct monetary policy;
2. act as the sole issuer of the national currency and as the supervisory authority of the banking and financial system, having the authority, inter alia, to grant operating licenses to banking and financial institutions; and
3. oversee the payments system.

The General Department of National Treasury (GDNT), “in operation since January 1991, is the single cashier and public accountant of the Government of Cambodia. The GDNT is responsible for Cambodia’s public debt and plays a role in the formulation and execution of public finance-related policies, as well as the management of the public budget. For the purposes of the capital market, the department’s duties and tasks include the managing of government finances, including the future use of Treasury bills and government bonds.”

The Securities and Exchange Commission of Cambodia (SECC) “was inaugurated on 23 July 2008 as a result of relevant provisions in the Law on the Issuance and Trading of Non-Government Securities, 2007. The SECC is an autonomous government agency and the sole regulator of the securities sector in Cambodia, including infrastructure providers, market participants, and intermediaries for participant activities in the securities market. Due to the absence of government securities issuance until 2019, the SECC’s present focus is on the stock (exchange) market and the building of a corporate bond market. The SECC consists of a board with eight commissioners, plus the Minister of Economy and Finance as Chairman. Commissioners represent a number of government ministries and include persons with securities industry experience who are proposed by the MEF. The board answers to the MEF.”

Minimum capital requirements for bank in Cambodia, based on NBC directives:



Financial Institution	Minimum Capital Requirements (2010-2016)*	Minimum Capital Requirements (2018-present)*	<i>Proposed Minimum Capital Requirements (2023-2025)*</i>
Commercial banks	US\$37.5 million	US\$75 million	US\$150 million
Foreign branch (where parent banks is rated as investment grade)	US\$37.5 million	US\$50 million	
Specialized banks	US\$7.5 million	US\$15 million	
Microfinance institutions (lending only)	US\$62,500	US\$1.5 million	
Microfinance institutions (deposit taking)	US\$62,500	US\$2.5 million	
Financial leasing and rural credit	US\$50,000	US\$50,000	

*NBC allows 2 years to comply to new minimum capital requirements



ANNEX 5: AFFORDABLE HOUSING FINANCE MODELS AND EXAMPLES

Case Study	Country / City	Partners	Housing Finance Model(s)	Innovation	Can the model be replicated in Cambodia? ⁷⁶
a	India	<p>SPARC, is one of the larger NGOs in India focused on facilitating the creation of voice of the urban poor in the development of the city;</p> <p>Samudaya Nirman Sahayak (SSNS), a non-profit construction company or social enterprise.</p> <p>Reall. (formerly known as Homeless International). It provides affordable finance to its Implementing Partners. Reall then work with these organizations to develop financially viable housing projects for their low-income communities.</p>	<p>Sale of transferable development rights granted by state authorities to recover costs for housing construction as part of informal settlement upgrading. Bridge financing from Reall.</p>	<p>Transferable development rights (TDR) and sustainable low-income housing</p>	<p>While results show the TDR model is convincing, the generation and sale of TDR rights is a drawn-out process that takes years to yield results. SSNS has thus far only operated and maintained liquidity with the support of Reall and CLIFF bridge finance (see below for further details). For the model to become self-sustaining, the TDR process and the policies that govern it must be streamlined and made more efficient. This model is also only replicable elsewhere if other governments emulate the Indian example, which requires substantial financial resources and political reforms, which are unavailable in Cambodia. Furthermore, the TDR model is inherently geared towards densely populated urban environments where land costs are high, and densification is attractive for developers. The model is less suitable in contexts where land is cheaper and more plentiful, such as in peri-urban or rural areas. Urban sprawl is more in favour in Cambodia</p>

⁷⁶ To answer this question, we factored in the political and market environment as well as current planning and housing policies and laws.



					and hence this model would be less appropriate.
b	Philippines	<p>LinkBuild, a housing enterprise promoting bespoke incremental housing products for self-organizing communities and Philippine Alliance member.</p> <p>Community Resources for the Advancement of Capable Societies (CoRe-ACS), a microfinance institution and Philippine Alliance member.</p> <p>Reall (see above for description).</p>	Financing of community-led housing development through micro-mortgages. Currently seeking support from the governmental Community Mortgage Program.	Reall partners with LinkBuild, promoting bespoke incremental housing products for self-organizing communities financed by community savings through micro-mortgage loans. Loans are delivered through CoRe-ACS.	<p>Despite this model improving lives of residents in many communities, a lack of scalability has prompted LinkBuild to investigate alternative, government-backed initiatives to community finance and housing construction. Other issues that would be of concern if replicated in Cambodia are related to projects which are highly sensitive to the needs of the urban poor, this can drain organizational time and resources. The identification, acquisition and development of land to build upon is also fraught with bureaucratic and political challenges and is similar in terms of complexity in Cambodia.</p> <p>In response to these challenges, LinkBuild is now brokering a partnership with the Social Housing Finance Corporation (SHFC), a Philippine government agency mandated to undertake low-income social housing programs through affordable finance. SHFC is responsible for administering the</p>



					Community Mortgage Program (CMP), a government financing initiative that enables the urban poor to purchase the land they have been living on, legitimize their status and take out long-term mortgages. Interest is charged at a fixed rate of 6 per cent for 25 years (significantly lower and longer than CoRe-ACS micro-mortgages). Given the shift in LinkBuild’s approach to work more closely with a public owned finance enterprise, it would appear a similar finance entity and partnership would eventually be needed in Cambodia for this approach to have any success in the medium- to long-term.
c	Nepal	Lumanti, an NGO established in 1994 to alleviate poverty through improving shelter. Reall (see above for description).	Provision of loans to low-income co-operatives, to fund homeowner-led housing construction. Also partnering with commercial banks for mortgages. This project was funded by Reall via CLIFF (see below)	Lumanti has supported the renovation and construction of homes, by providing low-interest loans to 17 separate community associations of low-income women across Nepal. Interest is typically charged on these loans at an annual rate of 8 per cent. While it is the responsibility of the co-operatives to determine eligible community members and manage their repayments. More recently, Lumanti has partnered with mainstream banks to leverage additional resources and make finance more affordable. The engagement of the commercial	The subsidized interest rate is dependent on the guarantee fund being deposited. This suggests mainstream banks are reluctant to lend to people on low incomes without securitizing and de-risking arrangements. This is a similar challenge in Cambodia – although it could be replicated - but only if the right banking partner and housing developer were found. One of the long-term challenges is persuading the banks to transition away from externally guaranteed backed loans to internally guaranteed backed loans or no guarantees at all.



				banking sector is pioneering in Nepal. It is made possible by Lumanti's provision of loan guarantee funding, which reduces lending risk. In this model, Lumanti and the municipality jointly select qualifying homeowners, with a particular emphasis on poor and vulnerable households that can demonstrate the ability to repay. The banks provide loans to them for up to US\$ 3,460 at a subsidized interest rate of 8 per cent, well below the national average (12 per cent) over a seven-year period.	
d	Thailand	<p>Baan Mankong Program / Community Organization Development Institute (CODI)</p> <p>(CODI) is a Thai Government institution whose mission is to support the strengthening of communities and their organizations – in both urban and rural areas. CODI's chief financial tool is the CODI revolving fund, which provides soft loans to community</p>	<p>A hybrid formal-informal finance model, using low interest loans through community savings groups for slum upgrading.</p> <p>The program is generally considered one of the most recognized and cited examples in the literature where formal (in this case a national fund from the Ministry of Social Development) and informal financial mechanisms (community savings groups) form hybrid formal-informal arrangements for the upgrading of informal settlements (Brugman, 2019).</p>	<p>A low cost, low capital investment community driven model using a revolving fund to finance capital works (housing construction and upgrading). Baan Mankong program facilitates a process that is entirely community driven. The program supports networks of poor communities to survey and map all the poor and informal settlements across the city and develop plans for comprehensively upgrading them. The maximum loan amount per household is US\$ 11,250, which should not exceed 90% of total house construction cost. The annual interest rate on housing loans is fixed at 4%, and the maximum repayment term is 20 years.</p>	<p>The Baan Mankong Program and CODI are unique to Thailand's political, social and economic context. Given the program was heavily subsidized by the Thai government to support the loan scheme, makes it challenging to replicate in a Cambodian context and economy that isn't as advanced as Thailand, or with ministries that are less resourced.</p>



		cooperatives and community networks to undertake a variety of development initiatives they plan and implement themselves.			
e	UK based working across Africa and parts of Asia	Community-Led Infrastructure Finance Facility (CLIFF) Reall (see above for description).	Community-Led Infrastructure Finance Facility. It defines its core work as, 'to support slum dwellers to improve their lives and find lasting solutions to urban poverty'. CLIFF aims to address housing and basic services of slum dwellers, which are not adequately addressed by the local government or private sector. CLIFF is a project coordinated and partly funded by UK based housing finance organization, Reall.	The innovation CLIFF brings to the sector is to build capacity of partner organizations, help them maintain their strengths and enabling them to work on more complex dimensions of housing programs, such as land and financing. A number of CLIFF partners have also developed capacity to influence the investment policies of local and national banks. For example, in Nepal LUMANTI, a national NGO and CLIFF partner, was able to secure 80 per cent of the total project cost from local banking institutions. CLIFF uses donors innovatively. It uses them to build partners' capacity through 'capacity funds' and provide them with additional recoverable capital funds to buy land, lend micro-mortgages to slum dwellers and to invest in physical construction. All capital funds are recoverable from the partners. Once recovered, the	Introducing a partner like CLIFF into the Cambodian context remains challenging given past experience in community led housing programs in Cambodia. For example, the experience from the Asian Coalition for Housing Rights (ACHR) who effectively replicated the CODI-style model in Cambodia, suggests this approach is unsustainable in given the political environment, and that collective action in upgrading processes in Phnom Penh is complex and not always successful, as it is influenced by the politics from many interested parties. With absence of an institution that can play a mediating role between communities, government, developers, banks etc., it leaves processes open to heavy influence from powerful subjects such as the private developers and government officials.



				funds are recycled through the same or different partners.	
f	Mozambique	<p>Casa Real, a social enterprise established in 2017 to make decent housing accessible in Beira, Mozambique</p> <p>Reall (see above for description).</p>	Partnering with commercial banks for end-user finance, and local government for land, to support solutions for housing developers.	<p>Casa Real negotiated with mainstream banks to unlock mortgages at accessible terms and rates for Beira’s citizens. This engagement was expedited by the Dutch government, which supported an impact advisory firm (Fount) to lobby several mainstream banks and the Central Bank of Mozambique. The Beira Mayor and the Municipal Council were also important enablers, permitting the sale of houses with “condominium” titles. This avoided legal restrictions on minimum plot sizes, which are otherwise too large and unaffordable for low-income households.</p> <p>These developments later made the way for Absa Mozambique (formerly Barclays) to launch a new housing mortgage product in 2019. These mortgages are targeted at Casa Real customers with monthly incomes lower than US\$ 237 per month. For now, this income level is the lowest the bank is prepared to consider, and it represents a substantial improvement on previous mortgage conditions.</p>	<p>Absa provides financing for a maximum 95 per cent of the property selling price (compared to 70% from Cambodian banks), Furthermore the customer is expected to pay a deposit of at least 5 per cent (compared to 30% in Cambodia). Casa Real has worked to alleviate this by negotiating a reinsurance product for the banks to provide mortgages without a down payment condition (this could be replicated in Cambodia.) Absa charges interest on the loans at the national “prime rate” (18 per cent), plus a relatively small margin of 0.25 per cent (this compares favorably in Cambodia as interest rates range from 8-12 per cent in commercial banks).</p> <p>There is potential to address both the deposit and lending amounts through provision of a guarantee in Cambodia. Further, there is opportunity for a local organization with community and commercial credibility in Cambodia to support the identification of customers, facilitate agreements with</p>



					employers, assist with opening bank accounts, provide relevant documentation for the houses, such as land titles, and conduct valuations of housing typologies. This organization would also need bear these transaction costs in supporting the customer and bank.
g	Pakistan	<p>Ansaar Management Company (AMC), a social enterprise established in 2008 to make quality housing more accessible.</p> <p>Reall (see above for description).</p>	<p>Housing finance for developer-led housing supplied through partnership with a state-owned bank to manage homeowner instalment plans and partnership with a major employer to manage employee repayments.</p> <p>Focus on sustainability, mixed-tenure housing sold on the open market. AMC developed a mortgage product for low-income buyers in partnership with a semi state owned finance institution, Housing Building Finance Company Limited (HBFCL).</p>	<p>HBFCL now provide a mortgage product to AMC customers with a minimum monthly income (US\$161). Mortgages are loaned at a fixed interest rate of 12 per cent (compared to 35 percent offered by microcredit providers) for 20 year terms, and deposit requirement of 25 per cent. This is available to those in formal and informal employment.</p> <p>AMC reduce risk to the lender by ensuring borrowers have land certificates and homes are built to quality standards. AMC also offer instalment plans for those who are ineligible for a bank loan – this allows for the sales process to start before converting to a mortgage.</p>	This model has potential to work in Cambodia but first must be piloted to determine the viability of this sub-commercial model. A local bank partner and housing developer are essential partners in this model.
h	Afghanistan	First Microfinance Bank of Afghanistan (FMFB-A)	The First Microfinance Bank of Afghanistan (FMFB-A) was established in 2003 with the mission to reduce poverty and promote financial inclusion by providing its clients with access to financial	<p>Housing microfinance plus technical advisory.</p> <p>Construction technical assistance is provided with loan approvals. Support services are provided</p>	This approach could be adapted in Cambodia with the right finance partner, particularly the method to piloting, testing and refining a loan product. In the case of FMFB-A, loans could be used for either home



			<p>services. It has been supported with the financial and technical resources from multiple international development agencies, such as the Aga Khan Agency for Micronance (AKAM), International Finance Corporation (IFC), the German Development Bank (KfW), and the U.S. Agency for International Development (USAID).</p>	<p>across the value chain from advising on securing land tenure to selection of building materials, construction techniques, and innovative methods and interventions that address earthquake resistance, sanitation, ventilation, and energy efficiency. Combining the loan offering with construction technical assistance helped raise awareness about safe construction, reduce the cost of future repairs, and ultimately improve the quality of the loan.</p>	<p>improvement or construction to cover activities such as home repairs and upgrades, structural changes, new home completion, connection to basic utilities such as water and electricity, solar energy installation, house insulation, hygiene improvements, such as septic tanks. The maximum loan exposure for each borrower during piloting was up to US\$1400, and after modifications, up to US\$9000 split across three cycles</p>
i	Australia	<p>Keystart, began in 1989 as an initiative of the Western Australian State Government in Australia. The relationship has continued over time with ongoing support from successive State Governments. Keystart is a private organization with one shareholder, the Housing Authority.</p>	<p>Shared equity schemes allow a home buyer to share the capital cost of purchasing a home with an equity partner. In the case of Keystart, the equity partner is the State Government (through the Housing Authority). The shared equity loan products offered by Keystart help reduce the costs associated with becoming a homeowner as the upfront costs of buying a property e.g. deposit and monthly loan repayments are lower. As the initial deposit and loan will be based on the borrower's equity share not the full value of the property, the loan amount is reduced saving substantial up front and ongoing costs.</p>	<p>Shared Equity Model, non-market housing</p> <p>With the shared equity schemes that Keystart provide, the homebuyer takes out a loan to buy their proportion of the property (typically 70%) and the Housing Authority provide the balance of the purchase price. During the loan term the homebuyer can purchase further equity if they can afford to, so that eventually they bring their ownership to 100%. To protect their interest, the Housing Authority lodge a caveat over the property and the homebuyers are also required to co-sign a Co-Owners Deed which sets out the</p>	<p>This model is highly unlikely to succeed in Cambodia, not without significant government support and investment. A separate government housing authority would be needed, which could setup an autonomous public enterprise for affordable housing with private sector investment. There is precedent and supporting policy for this approach, however, with a similar semi-autonomous specialty banks in Cambodia, such as the Agricultural and Rural Development Bank, or more recently the state-owned SME Bank. Under the laws on the general status of public enterprise, the Council of Administration of the Public Enterprise is the highest</p>



				<p>terms and conditions of the shared home ownership loan. Keystart also encourage homebuyers to transition to another lender once their borrowing capacity increases to the point where they can refinance their Keystart loan and purchase all of the Housing Authority equity</p>	<p>governing body. The institutions with economic characteristics are created by sub-decree following a joint proposal by the Ministry of Finance and the responsible ministry or authority, for the example of housing finance would need to be the Ministry for Land Management, Urban Planning and Construction.</p>
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