THE ROLE OF AFFORDABLE HOUSING IN ATTAINING THE INCLUSIVE URBANIZATION OF AFGHAN CITIES

Experience from an actual project in Kabul city

アフガニスタンの都市の包括的な都市化を実現するための安価な住宅の役割

カブール市での実際のプロジェクトの経験

Osama HIDAYAT — * 1

Yoshitaka KAJITA — * 2

オサマヒダヤット — * 1

梶田佳孝 — * 2

Keywords:

Affordable housing, Growth management, Inclusive urbanization, Kabul

キーワード:

安価な住宅, 成長管理, 包括的な都市化, カブール

The new era of development has subsequently been accompanied by many challenges such as urban sprawl and inappropriate urban expansion, informal settlements, and environmental pollution, which have all negatively affected the urban environment. The paper initially observed experiences from case studies related to quality of life, urban growth, and affordability issues. Secondly, the study identifies a multi dimensional approach strengthening inclusive urbanization. In conclusion, the study clarifies how the Afghan government can promote the production of more affordable housing by presenting assessments and suggestions, thus contributing to the improvement of affordable housing in Kabul.

1. Introduction

Cities are hub for economic activity and are centers of excellence in education, health care, culture, social services, and government administration, creating employment opportunities and livelihood to serve as engines of economic growth. Additionally, cities are focal points to alleviate poverty in rural hinterlands.

Due to more than three decades of political violence, patterns of growth in Afghanistan's major cities have become dysfunctional. However, after 17 years of "post-conflict" reconstruction, the country has seen unprecedented growth in the construction industry. Kabul, the capital city of Afghanistan and main city of the country has undergone a remarkable private sector-led construction boom, which has been generated primarily by the presence of international forces and organizations. Additionally, Afghan diaspora entrepreneurs and investors contributed to the boom as well specially after 2002.

Despite the significant transformation of the built environment, there has been insufficient analysis of Kabul's current urban management systems and urbanization processes. Similarly, there is little research reflected on current spatial production and construction practices regarding Kabul's cultural identity and social cohesion.

Research on affordable housing aims to provide adequate and affordable housing to internally displaced people (IDP) and low-income residents. Most

of these people have no other alternatives and have settled in informal settlements on government as well as private land they do not own. Thus, they lack housing security and are frequently at risk of forced eviction and other harassment.

We hypothesized that there is a significant relationship between the residents' socioeconomic living conditions and inclusive urbanization. Therefore, we investigated the existing housing scenario to understand current needs, local preferences, and the existing potential to transform the area into a sustainable and vibrant community.

Physical building structure, services, and infrastructure are likely to significantly affect cities. Therefore, it is critical to build housing in a way that facilitates resilience to changing conditions while minimizing the need for major structural changes. Thus, this paper's main objective is to fill the gap in current research on the role of affordable housing in achieving inclusive urbanization.

The definition of affordable housing varies in different countries. In developing countries such as Afghanistan, affordable housing means relatively small housing units constructed of locally sourced low-cost materials that are arranged in small blocks and built on cheap land at the city's periphery. This study argues that to attain inclusive urbanization, housing must have economic strength, high quality of life, and affordability. The goal of inclusive urbanization is to embrace

*1 Ph.D. Fellow, Graduate School of Science and Technology, Course of Science and Technology, Tokai Univ.

*2 Prof., Faculty of Engineering, Dept. of Civil Engineering, Tokai Univ., Dr. Eng.

*1 東海大学大学院総合理工学研究科総合理工学専攻 博士後期課程 (〒259-1292 神奈川県平塚市北金目4-1-1)

*2 東海大学工学部土木工学科 教授・博士 (工学)

urbanization followed by an effort to plan, invest and manage growth in urban areas so that can maximize the economic benefits while minimizing major negative congestion forces, making cities ready to provide more affordable housing, diverse economic activities and stronger foundation for sustainable growth. It's also to expand the provision of basic services to all communities equally and to achieve better spatial integration within cities between people housing and jobs, more importantly to connect smaller urban areas efficiently to city center as well as to rural areas that surround them, so that access to economic opportunities can be reached more easily by anyone from anywhere.

This study does not intend to cover all mentioned components above, although it discusses theoretical and empirical evidence. However, this framework could be utilized for a more comprehensive analysis in the future research.

2. Study Area

The study area in Figure 1 was meticulously chosen based on theoretical and practical evidence of housing issues in Kabul City. The authors selected three different sectors that implemented number of housing projects to analyze the existing situation of the housing in order to understand the current needs and local preferences. The Ministry of Urban Development and Housing (MoUDH) ^{Note 1)} has implemented Makroyan expansion project and Emirates Township at precinct 16 and 9, Capital Region Independent

Fig. 1 Map of Kabul city with highlights of the study area in districts (8,9,16 and 22) Source: author compilation

Development Authority (CRIDA) ^{Note 2)} has implemented Mamozai affordable housing project at precinct twenty for returning refugees, and private sector ^{Note 3)} has implemented golden city at precinct 8 and Arya township at precinct 9.

The city is situated at Lat 34.53N and Long 69.17E, at elevation 1798 m above sea level with a geographical area of 275 km². Kabul, with a 5.1 million population, is now home to 41% of the total urban population of the country, of which 82% is informal. The 55 informal settlements in Kabul City accommodate a population of over 30,000 each.

Government reports and academic observation indicate that there is an

Fig. 2 The existing land use map of precinct 16, Kabul

unsustainable housing development trend based on socioeconomic, physical, and environmental characteristics of the Kabul city (H. Detlef, 2017).

The selected precincts are extended from the city center to the east and south east of Kabul city and have almost the similar land use, the scale map of precinct 16 shown in figure 2. Provide the details of the area and its relations with the surrounding areas. This precinct is made of 27 Cadastral Territorial Units (CTUs) ^{Note 4)}.

3. Research Design and Methodology

In this research, we have sought to understand the concept and characteristics of affordable housing for inclusive urbanization, We used qualitative research method to explore affordability dimensions for inclusive urbanization in Afghan Cities, then we exploited these dimensions in order to develop planning strategies. In order to gain better understanding of the current housing scenario, we used methodological triangulation. The method maximizes the validity and reliability of a qualitative study (Golafshani 2003).

The data were gathered from primary and secondary sources. The primary data were collected through semi-structured questionnaire and field observations in august 2018. Also, the primary data included authors' visits and meetings with urban sector official and urban experts. Furthermore, the secondary data were gathered through reviewing existing literature, policy papers, official reports, and governmental documents.

The first step in investigating this was choosing a group of experts that consisted of urban design, urban planning, and executive-level urban sector officials to respond to questions.

We used Likert-type scale questions for measuring housing affordability, quality of life, employment opportunity, and policy of the specified housing projects; accordingly, the expert opinions are presented numerically, scaled from 0 to 10, where 1 represents very inadequate; 3, inadequate; 5, neutral; 8, adequate; and 10, very adequate. All the experts are Afghan nationals and have several years of national and international work and study experiences in urban design and planning and held high-level management positions in the urban sector. Based on previous research, a sample of size of 10–15 participants would provide a homogeneous group (Hwang & Lin, 1987).

Table 1 The result of questionnaire survey from expert group

Very Low=1, Low=2, Neutral=3, High=4, Very High=5											Mean	Mode	Standard deviation
No.	Characteristic	Item	1	2	3	4	5	6	7	8			
1	Policy	CRIDA	2	3	5	3	4	2	5	3	3.37	3	1.1881
		MoUDH	6	5	5	7	5	7	5	3	5.37	5	1.302
		Private Sector	6	8	7	9	6	6	7	7	7	6	1.0691
2	Livability	CRIDA	3	2	2	4	3	3	4	5	3.25	3	1.0351
		MoUDH	4	6	7	6	6	4	5	6	5.5	6	1.069
		Private Sector	5	6	7	5	7	6	7	5	6	5	0.926
3	Employment	CRIDA	4	6	3	7	5	6	7	7	5.62	7	1.506
		MoUDH	6	8	6	5	8	8	7	7	6.87	8	1.126
		Private Sector	5	6	8	6	6	5	8	7	6.37	6	1.188
4	Affordability	CRIDA	10	9	8	10	10	8	8	9	9	10	0.9258
		MoUDH	5	8	6	6	5	7	6	5	6	5	1.069
		Private Sector	4	2	2	4	1	3	3	5	3	4	1.3093

The questionnaires in this study were answered through in-person interviews or sent to the experts and returned with enough responses. The survey shows that CRIDA housing projects are more affordable than those built by the Afghan Ministry of Urban Development and Housing (MoUDH) and private investors. Employment opportunity depends on project scale, and CRIDA's pilot housing project is smaller in scale than others however, it has been relatively more successful than other two projects in terms of quality of life. For policy, there is a significant decrease in the CRIDA housing project's rating because of a lack of public facilities and infrastructure. Furthermore, CRIDA has policy restrictions in that the houses are only provided for returning refugees approved by UNHCR. In contrast, MoUDH and private investors housing projects provide public facilities and do not have many policy restrictions. Private investors have developed their own projects and have played a critical role in shaping Kabul city, but they have also caused the city's actual development to deviate far from its own plan.

In the table weighted mean is analyzed as follows:

$$\text{Weighted mean} = \frac{\sum_{i=1}^n (x_i \cdot w_i)}{\sum_{i=1}^n w_i} \dots \dots \dots (1)$$

which expands to

$$x = \frac{w_1 x_1 + w_2 x_2 + \dots + w_n x_n}{w_1 + w_2 + \dots + w_n} \dots \dots \dots (2)$$

where $\sum$ denotes the sum, (w) is the weights and (x) is the value.

The result suggest that policy modifications and provision of public facilities can contribute to the improvement of affordable housing in CRIDA's model.

That second survey was performed using a citizens' questionnaire. The questions were collected by recognizing significant survey trends, regarding socio-demographic factors including such wages, housing conditions, tenure, and profession were addressed to process that takes. There had been a varied

Fig. 3 Public opinion about Housing affordability

range of ages, education, wages, marital status, and form of households. a maximum of 230 datasets were collected from 250 surveyed households.

Initial survey findings showed which 64 percent of people in the targeted communities thought housing was not affordable enough just to meet the housing needs of residents. About 25 percent of people were happy with the quality of the properties, and 11 percent were not certain illustrated in graph in figure 3. People also assume that the accommodation currently offered by the government and private industry does not even have adequate choices in terms of income class and typology the information and architectural details of the model house is shown in figure 5.

Furthermore, the graph in Fig. 4 reveals that in squatter camps, upwards of half of all people surveyed are worried about connectivity and the standard of living. While substantial progress has been made in certain squatter camps through the introduction of quality support (Qala-e-Musa Road project, by CRIDA 2018), the study revealed that citizens have negative views towards those ventures. Most citizens in squatter camps do not recognize how upgrading projects work and how present and future property prices will be enhanced, and the public services required will be delivered.

Fig. 4 Public opinion about accessibility

This study, therefore, supports an interconnected multidisciplinary approach that, in such a single context, incorporates all three components relevant to inclusive treatments: spatial, economic, and social.

The geographical dimension: strategic approaches typically concentrate on equitable access to housing, utilities, and basic government infrastructure, lumped under the name of "improving the built environment." Both spatial problems are underpinned by urban land; therefore, land ownership is a key factor in promoting inclusion. A few of the instruments that could facilitate incorporation are land ownership, land management, and land-based funding. Likewise, in contrast to their significance for economic development, housing as well as the quality of services also perform roles in providing inclusion. While some services, including such safe drinking water, are essential for healthy living, other services, like transportation, are also essential cos of their influence on accessibility, investment-building, and the identity of the city.

The sociocultural dimension: "community cohesion is the attempt to improve the conditions for individuals or groups to live in a democracy (World Bank 2013." Participation Matters "proposes improving social integration by improving capacity, opportunity, and integrity. this could be achieved in a local city by acknowledging and protecting the personal and collective rights of people to adequate housing, increasing the involvement of all. The function of the marginalized is, however, the most critical aspect to recognize, and political leaders should operate with them just to achieve participation.

The economic dimension: This ensures that various classes of people have employment opportunities to contribute to society and to reap the benefits from economic development. The incorporation of pro-poor initiatives in local policies for economic growth would help to foster economic inclusion. Addressing and incorporating the informal economy often boosts participation, as it is possible to properly determine and control the actual performance of the market as a consequence. Besides, it helps defend the disadvantaged from premium costs and poor expectations by offering formal procedures. Skills growth, access to higher education including access to financial often open up new possibilities for people who are marginalized in the economic aspect.

4. Findings and Discussion

The inclusive cities concept is a response to the growing income disparities seen in urban areas since the mid-1980s (Espino 2015; Serageldin 2016). Income disparity has led to the erosion of social, economic, and political cohesion, and people living in urban areas do not have the same levels of access to urban services and thus experience varying degrees of social exclusion. The inclusive urbanization concept views urban areas as needing to be more inclusive to marginalized groups such as returning refugees, IDP, women, and the urban poor by guaranteeing some degree of equality to its citizens. This can be pursued through a variety of economic, social, and political measures.

This study argues that the current imbalance can be rectified by affordable housing, which could become an important means of reducing trade-offs and contradictions. A key question underlying this study is how the concept of affordable housing should guide actions needed to counter increasing inequalities that often accompany urbanization. To answer this, we applied the concept to demonstrate its potential analytical strength in making sense of key urban issues:

Urban inequality: This describes differences in access to services as being an unequal state between one group and another within a city. This might hide the issue of identifying who the most vulnerable urban citizens are. Inequality in urban areas significantly affects low-income people through policy processes that systematically exclude specific groups of the urban poor from resources and opportunities.

Fig. 5 Layout of the affordable house built in district 22 by CRIDA showing the lifestyle of residents.

The various criteria for defining urban housing equality include adaptability, integration of amenities and services, self-help housing, beneficiary participation, and community involvement. Housing should also respond to sociocultural needs and practices of beneficiary households and communities. This approach focuses on housing development that promotes individual social interaction and community cultural enrichment and aims to reduce housing inequality between social classes. At the same time, it accelerates improvements in social development, relations, and interactions. Urban informality: Informality is critical to the everyday functioning of cities. Informal housing is a type of market where affordability accrues through the absence of formal planning and regulation. It has become

obvious in recent years that informal housing and land markets are not just the domain of the poor but are also important for the middle class 24). These trends point to a complex continuum of legality and illegality where squatter settlements formed through land invasion and self-help housing can exist alongside upscale informal subdivisions formed through legal ownership and market transaction but in violation of land use regulations.

Informal spaces have been perceived as unplannable; however, there has been a series of attempts to improve and integrate such spaces (CRIDA, UN-Habitat). As such, approaches toward the affordable housing concept must start working with the grain of informality. This can be done by rethinking the object of development and replacing best practice models with realist critiques.

Urban migration: Refugees and IDP who have been displaced from their homes by conflict are increasingly drawn to cities. Kabul and Nangarhar two major cities in Afghanistan, host the greatest number of returnees and IDP, which challenges the cities in coordinating and supporting inclusive policies. Therefore, an inclusive approach is needed that includes measures to protect migrants as well as those who might be adversely affected by pressures and reactions to migration.

Moreover, to ensure that cities are safe, are inclusive, and leave no one behind, the UNHCR is working with the Government of Afghanistan, private industries, community-based organizations, and international humanitarian and development partners. Analysis of the questionnaire and housing supply surveys in selected locations in Kabul reveals that affordable housing is still insufficient and does not address the population's basic housing needs. According to the UN-Habitat National Housing Profile, released in 2017, the formal housing supply meets only 5–10 percent of total housing demand and is unaffordable for 90–95 percent of the population (Afghanistan Housing Profile 2017).

UN-Habitat, the lead United Nations agency on sustainable urban development, is pleased to support the Afghan government in developing its National Housing Policy in close coordination with national and local authorities, civil society, and private industries through a participatory and inclusive process.

5. Conclusions

Kabul city currently faces a daunting task of addressing the challenge of urban informality. The volatile security situation, post-war urban rapid migration and urbanization, land grabbing and limited government capacity to provide affordable housing, caused that informal settlements to have become the mainstay of most urban residents in Kabul. This study aims to contribute to the complex socio-economic process in Kabul city housing projects by identifying and rating the most relevant features of development potential. The questionnaire used, highlights the importance of rigorous procedure for the respondent's data collection and weighting of the features. Since the current scenario or feature of housing influence the quality of urban life while lacking affordability seriously endangers the sustainability and inclusiveness of the city.

As a result, this study shows that the diversification of policy making is necessary in order to incorporate all characteristics for the future housing

development. The survey gives a quantitative proof by comparing their ratings of the features among expert groups and the resident's priorities.

The findings in this paper can provide governments with useful suggestions for managing land and housing markets and for formulating relevant policies.

The following integrated approach was made to address related issues:

- Build the capacity of local government institutions to foster the effectiveness of social, economic, cultural, and spatial interventions in housing projects.
- Rethink urban development through community-driven approaches.
- Ensure that affordable housing satisfies minimum housing requirements.
- Promote the use of locally available or locally developed materials, which are cost efficient, durable, and environmentally friendly.

Finally, since planning has had less influence than market forces in shaping the Kabul city's growth. Since the private capital has accounted for most of the city's total investment for the last two decades. Therefore, private investors should be encouraged to participate in development in a conventional way to avoid the misuse of urban planning. Instead the government should confine its use of urban planning to that of which it is intended shaping urban development that serve socio-economic purposes.

This study's findings and implications can also be generalized to other cities to ensure sustainable housing market development. Kabul is Afghanistan's capital city, as well as its political, economic, and cultural center. Because it is one of the most dynamic cities in the country, and the real estate market in Kabul is steadily developing. Taking Kabul as an empirical research area provides deep and representative insight into the intrinsic relationship between urban life and housing affordability, which other cities can reference.

Notes

1) MoUHD

According to the urban sector in national development strategy of the country, MUDH is responsible for guiding and formulating of urban policies; supporting of municipalities and preparing of urban master plans; and maintaining and managing of housings.

2) CRIDA

Capital Region Development Authority (CRIDA) is an Afghan Government entity which focuses on development of Afghanistan's Capital Region (Kabul, Wardak, Logar, Kapisa and Parwan) Provinces, in order to create safe urban environment and tackle the problems caused by ever increasing population growth in the capital of Afghanistan.

3) Private Sector

The private sector organizations are the main power behind the economic growth of the country. It plays a critical role in the establishment of employment capital formation income and mobilization of different kinds of domestic resources. It also helps to identify new things and participate in the growth of the nation.

4) CTUs

Cadastral Territorial Units (CTUs). The previous Gozars' a centuries old spatial and social urban unit are now standardized and merged by Kabul municipality into cadastral territorial units. The number of houses in each CTU will vary from approximately 1000 to 1250 houses, depending upon the dwelling density, characteristics and development pattern of the area.

Authors Contribution

Osama Hidayat has developed the theory, conducted survey and performed the analysis. Yoshitaka Kajita verified the analytical methods, encouraged Osama Hidayat to investigate the role of affordable housing in attaining the inclusive urbanization in Afghan cities and supervised the findings of this work. All authors discuss the results and contributed to the final manuscript.

Acknowledgment

The authors appreciate the support of the Capital Region Independent Development Authority (CRIDA) and Ministry of Urban Development and Housing in Kabul, Afghanistan. This research was partially funded by Japan International Cooperation Agency (JICA).

Declaration of Interest

The author declares no conflicts of interest regarding the publication of this paper.

References

- 1) Bartuska, T.; Kazimee, B., Owen, M. (1995). Envisioning a Sustainable Community. In Universe, (pp.14-17), Washington State University, WA.
- 2) Bashir A. Kazimee, Abdul Wassay Najimi. (2017) Int. J. of Herit. Archit., Vol. 1, No. 4. 671–682. UK. DOI: 10.2495/HA-V1-N4-671-682
- 3) Mona Khechen. (2012). Architecture and War: From Baghdad to Kabul. Les Carnets de l'Ifpo. La recherche en train de se faire à l'Institut français du Proche-Orient (Hypothèses.org). <http://ifpo.hypotheses.org/4232> accessed on Nov 25, 2018.
- 4) Najimi A.W., Leslie J. (2012). Urban recovery: The case of historic Kabul. Heritage and Sustainability in the Islamic Built Environment, ed. B.A. Kazimee, Washington State University: USA, pp. 23–37.
- 5) Ayyoob Sharifi. (2018) Resilient Urban Forms: A Review of Literature on Streets and Street Networks. Elsevier Editorial System(tm) for Building and Environment, Manuscript Number: BAE-D-18-01619R2. Japan.
- 6) Sadasivam Karuppannan, Alpana Sivam. (2009). Sustainable Development and Housing Affordability, Institute of Sustainable Systems and Technologies University of South Australia, Australia.
- 7) M.S. Sharifzai, K. Kitagawa, A.J. Habib, M.K. Halimee, D. Sakaguchi. (2016). Investigation of Sustainable and Affordable Housing Policy Principles and Formulation Adoptable in Kabul City, Afghanistan. Journal of Sustainable development Vol. 9, No. 2; 2016. <https://doi.org/10.5539/jsd.v9n2p93>.
- 8) H. Detlef Kammeier, Zabihullah Issa (2017). Urban Governance in Afghanistan: Assessing the New Urban Development Programme and Its Implementation. Afghanistan Research and Evaluation Unit and Deutsche Gesellschaft für Internationale Zusammenarbeit. issues paper
- 9) Felipe Francisco De Souza, Takeo Ochi, Akio Hosono. (2018). Land Readjustment: Solving Urban Problems through Innovative Approach, JICA research institute, pp 97.
- 10) World Bank Report No: AUS8539, May (2015). World inclusive Cities Approach Paper
- 11) Ramakrishna Nallathiga. (2010). Affordable Housing in Urban Areas: The Need, Measures and Interventions. Pp 6. India
- 12) Deepa. G. Nair, Bert Enserink, G. Gopikuttan, Philip Vergragt, Alex Fraaij, Rene Dalmeijer. (2005). A Conceptual Framework for Sustainable-Affordable Housing for rural poor in less developed economies. The world sustainable building Conference, SB05. 4429-4436. Tokyo.
- 13) George Smith, Reginald Archer, Dilip Nandwani and Jianwei Li.: Impacts of urbanization: diversity and the symbiotic relationships of rural, urban, and spaces in-between, International Journal of Sustainable Development & World Ecology, DOI: 10.1080/13504509.2017.1383321, 2017
- 14) Mohammad Saraj Sharifzai, Keisuke Kitagawa, Mohammad Kamil Halimee, Javid Habib, Daishi Sakaguchi. (2015). Principles of Sustainable and Affordable Housing. International Journal of Civil and Environmental Engineering Vol: 9, No. 12.
- 15) Alpana Sivam, Sadasivam Karuppannan. (2002). Role of state and market in housing devlivery for low-income groups in india. Journal of Housing and the Built Environment Vol. 17, No. 1, pp 69-88
- 16) Ramakrishna Nallathiga. (2010). Affordable housing in urban areas: the need, measures and intervention. In 7th Annual Thinkers and Writers Forum of the Skoch Summit held at India Habitat Centre, New Delhi on November (pp. 10-12).
- 17) UN-Habitat (2014), Afghanistan's Urban Future, Discussion Paper. <https://unhabitat.org/afghanistans-urban-future/>, Accessed on Nov 15, 2018.

[2020 年 10 月 6 日原稿受理 2021 年 1 月 18 日採用決定]