

Urban Development and Housing in Nepal: Challenges and Opportunities

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Abstract:

Nepal has undergone significant urbanization driven by rural-to-urban migration and the government's efforts to merge rural areas into municipalities. This rapid urbanization has strained urban infrastructure and resulted in a shortage of affordable housing. The migration has also brought about socio-economic impacts on urban areas, including issues related to land use, job opportunities, and access to education and healthcare facilities. This article analyzes the challenges and opportunities that arise from urbanization and housing in Nepal, utilizing secondary sources such as books, reports, and websites.

The article addresses the implications of urbanization on various fronts, including informal settlements, infrastructure, housing, demographic changes, socio-cultural changes, and environmental sustainability. It emphasizes the importance of effective urban planning and policy interventions in tackling these challenges. Key interventions include the provision of employment opportunities, affordable housing, improved access to basic services, and the promotion of sustainable urban development.

Furthermore, the article highlights the opportunities presented by urbanization in Nepal, such as sustainable planning, social integration, and economic growth potential. It briefly discusses the planning interventions undertaken by the government to combat the rapid urbanization trend. The insights provided in this article are valuable for policymakers, urban planners, and stakeholders seeking to navigate the complex dynamics of urbanization and harness its potential benefits in Nepal, particularly in the context of an aging society.

Key Words: Sustainable Urban Development, Rural-Urban Migration, Demographic Changes, Climate Changes, Affordable Housing, Policy Intervention

Introduction:

Nepal is a landlocked and beautiful south Asian country nestled between two large countries, India to the east, west, and south, and China to the north. It has a population of approximately 29.16 million (NSO, 2021) with a population density of 198 persons per square kilometer. The country's population growth rate is 0.92% (NSO, 2021). Covering an area of 147,181 sq. km, Nepal represents only 0.03% of the world's total area and 0.3% of Asia (CBS, 2015). It is known globally for its natural and cultural richness, being home to Mount Everest and the Birthplace of Lord Buddha. Nepal stretches 885 km from east to west and 193 km from north to south. Since 2008, it has been a Federal Democratic Republic divided into seven provinces (Koshi, Madhesh, Bagmati, Gandaki, Lumbini, Karnali, Sudurpashchim), with a total of 77 districts and 753 local units (293 municipalities and 460 rural municipalities). The 2021 census shows that urban municipalities

account for 66.17% of the total population of Nepal, while rural municipalities account for 33.83%. (NSO, 2023) The sex ratio in urban areas remained relatively stable at 96.06, while in rural areas, it increased from 91.27 to 95.59 between 2011 and 2021. (NSO, 2023)

Nepal has a new Constitution that safeguards the democratic and fundamental rights of its people. The country has been prioritizing people's empowerment and striving for higher, sustainable, and equitable growth. As a least developed country (LDC), Nepal faces challenges of slow economic growth and low levels of human development. However, it has set goals to graduate from LDC status by 2026 (previously 2022) and achieve middle-income country status by 2030 (NPC, 2016).

Urbanization in Nepal has been influenced by various factors and has undergone significant changes over time. In the past, the development of roads from east to west and north to south played a crucial role in shaping urbanization patterns. Additionally, the eradication of Malaria in the Terai region in the late fifties and early sixties attracted people to migrate from the hills and mountains to the Terai due to its fertile lands and proximity to India. Rapid urbanization in Nepal is driven by rural-to-urban migration and the government's declaration of municipalities by merging rural areas (Shrestha, 2019). Currently, Nepal has 293 municipalities, including 6 metropolitan cities, 11 sub-metropolitan cities, and 276 municipalities. Being municipalities still prevail the rural characteristics therefore it is hard to accept the municipalities' population as urban population. Recently National Statistical Office (NSO), Government of Nepal, Municipalities areas in four categories. Among them three (Urban Centre, Dense urban cluster, Semi-dense urban cluster) are included to define as urban areas, which accommodates only 27.07% of total population. (NSO, 2024).

The distribution of municipalities across provinces is uneven, reflecting an unbalanced urban development. The number of municipalities in the provinces Koshi, Madhesh, Bagmati, Gandaki, Lumbini, Karnali, and Sudurpaschim are 49, 77, 45, 27, 36, 25, and 34, respectively. These municipalities consist of 62.4%, 73%, 77.3%, 65.8%, 55.2%, 47.9%, 62.4%, and 66.2% of the total population in their respective provinces. This urbanization poses significant challenges for sustainable development, especially in rapidly urbanizing areas. In response, Nepal has initiated the planning and development of the Kathmandu Valley, starting with the preparation of a comprehensive development plan in 1969. Subsequently, the country has implemented various policies, strategies, and projects to tackle urbanization issues related to sectors like infrastructure development, transportation, waste management, water supply, and sanitation. However, the distribution of municipalities and urbanization levels across provinces remains unequal, highlighting the need for balanced and sustainable urban development throughout the country.

Urban development and housing in Nepal are crucial aspects of the country's growth and development. Effective urban development strategies therefore are urgent need to improve the quality of life for urban residents, promote economic growth, and ensure environmental sustainability. Housing is a fundamental component of urban development, as it provides shelter

and a sense of security for urban dwellers. Constitution of Nepal 2015 has considered housing and clean-living environment as a fundamental right of the people of Nepal. The National Shelter Policy 2012 guarantees that all residents of Nepal have access to affordable and safe housing while promoting environmentally friendly and sustainable housing practices. With rapid urbanization in Nepal, it has been facing significant challenges in meeting the growing demand for affordable and adequate housing. It has resulted in a shortage of housing units, particularly for low-income and marginalized populations. In Nepal, the ownership of housing units belong to rent is 12.77% of total households (6660841 households). Population living in Slum and squatters in 2015 was 0.5 million and it is expected to reduce 125000 by 2030 as per Sustainable Development Goal -11 (SDG-11) set by Nepal. (NPC, 2017b). Similarly, the SDG -11 targets by 2030 for house hold units roofed with thatched/straw roof (%) is 5 to be reduced from 19 in 2015 and households living in safe houses (%) to increase 29.8 in 2015 to 60 in 2030. (NPC,2017b) Overall, urban development and housing in Nepal are essential for creating livable, inclusive, and sustainable cities. By addressing the challenges and leveraging the opportunities presented by urbanization, Nepal can strive towards building resilient urban areas that provide adequate housing and improve the quality of life for all residents.

2. Urbanization Trends in Nepal: Past and Present

There is currently no universally accepted definition of what constitutes an urban area or a city, and the perception of what is considered urban can vary even within the same society over time. (Trask, 2022). Urbanization was occurred in Nepal as number of urban areas increases, driven by various defined criteria. The urbanization trend in Nepal has undergone significant changes from 1954 to 2021. In 1954, the urban population in Nepal was only 2.9% of the total population in 10 municipalities. However, over the years, urbanization has accelerated at a rapid pace. The percentage of urban population reached 3.6% of total population with 16 municipalities, 4% of total population with 16 municipalities, 6.4% of total population with 21 municipalities and 9.2% of total population with 33 municipalities in 1961,1971,1981 and 1991 respectively.

By 2001, the urban population had increased to 13.9% of the total population with 58 municipalities, reflecting substantial growth in urban areas. The number of municipalities also increased from 10 to 58 during this period of about five decades. During this period, Nepal has primarily relied on population criteria to declare urban areas, although the definition of urban parameters has evolved over time. The urbanization trend in Nepal is mainly driven by push factors such as insecurity, limited employment prospects, and inadequate infrastructure in rural areas, prompting rural-to-urban migration. At the same time, pull factors such as improved living conditions and job opportunities in urban areas have also contributed to the urbanization trend.

Further developments occurred in subsequent years, with the government declaring numerous new municipalities. In 2014, 72 new municipalities were announced, bringing the total to 130. Additionally, in the same year, 61 settlements in 37 districts were declared as new municipalities,

further increasing the number to 191. As part of the federal restructuring process in 2015, 293 local units were given the status of municipalities, including 6 metropolitan cities, 11 sub-metropolitan cities, and 276 municipalities.

Currently, approximately 66.2% (CBS,2021) of the total population of Nepal resides in municipalities, reflecting the significant milestone of urbanization in the country. However, the distribution of municipalities across provinces remains uneven, highlighting the need for balanced urban development throughout the country. In terms of municipality population as a percentage of the total population, Bagmati province has the highest level at 77.3%, followed by Madhesh province with 73%. The rates mentioned exceed the national average. On the other hand, Karnali province has the lowest level at 47.9%, significantly below the national average. Most provinces have rates exceeding 60%, except for Lumbini and Karnali. This indicates that the majority of the population is residing in urban municipalities, signaling a shift from a predominantly rural agrarian society to an increasingly urbanized one. However, it is crucial to ensure that urban areas meet the necessary urban amenities and address the challenges associated with urban growth. The urbanization trend in Nepal showcases the country's ongoing urban transformation and the need for effective urban planning, infrastructure development, and housing provisions to support sustainable and inclusive urban growth.

3. Socio-Economic Impacts of Migration on Urban Areas

Migration has been a significant driver of urbanization in Nepal, leading to socio-economic impacts on urban areas. Rural-to-urban migration (29% of the population in the Census 2021 relocated, with 61.6% moving from rural to urban areas for work, business, and education purposes) people has resulted in a rapid increase in the urban population, placing immense pressure on existing housing, infrastructure and services. According to the 2021 census, approximately 23.4% of the population in Nepal, equivalent to 2,190,592 individuals from 1,555,961 households, are living abroad. The remittances sent by these individuals are commonly used by their families to purchase land and houses in nearby urban centers or in the Kathmandu Valley. This trend is contributing to the increasing migration of people to urban areas. This influx of migrants seeking better economic opportunities has both positive and negative consequences for urban development and housing in Nepal.

One of the key socio-economic impacts of migration is the strain it puts on urban infrastructure and services. The sudden increase in population overwhelms the capacity of cities to provide essential amenities such as housing, water supply, sanitation, and transportation. As a result, urban areas face a shortage of affordable housing options, leading to the proliferation of informal settlements and slums. These settlements lack proper infrastructure and basic services, exacerbating the living conditions of marginalized communities. A good example can be taken as migration of many people from different parts of the country to cities of Kathmandu Valley so that it has created extremely pressures on housing, infrastructure and services including land massive land use change. Over the past four decades (1970-2010), the built-up area in the Kathmandu

Valley has experienced significant growth. From 1970-1980 to 2000-2010, the built-up area increased by 31%, 89%, 125%, and 191% respectively. (KVDA, 2016) The last decade coincided with a 10-year insurgency period, leading to mass displacement and migration to urban centers. This growth can be attributed to socio-political and economic factors, as well as haphazard and unplanned development. In 2012, the built-up area covered 16% of the Kathmandu Valley, while agriculture covered 47% and forest/vegetation covered 35%. Agricultural land decreased by 18.86% from 1990 to 2012, while the built-up area increased by 211.5%. (KVDA, 2016) The increase in the built-up area in the Kathmandu Valley over the last four decades is a result of population growth and economic activities, leading to a demand for housing, infrastructure, and services. However, this expansion has come at the expense of agriculture and forest land, recreational spaces, and water bodies, causing negative environmental impacts. Moreover, the concentration of migrants in urban areas often leads to overcrowding and overburdened public services. The insufficient provision of quality healthcare, education, and employment opportunities further deepens socio-economic disparities within urban communities. The strain on resources and services also affects the overall livability and quality of life for urban dwellers, hindering their social and economic well-being.

Migration in Nepal presents both challenges and opportunities for urban development. On one hand, it strains infrastructure and housing, and creates disparities in accessing services. On the other hand, migrants bring skills and entrepreneurial spirit that can contribute to economic growth and innovation. To harness these opportunities, comprehensive strategies for urban development and housing are needed, including investments in infrastructure, regularization of informal settlements, and inclusive economic policies. Even in the Kathmandu Valley, the government has been planning for the development of three smart new towns. Additionally, certain land pooling projects are being implemented to provide housing plots and meet the increased demand due to population growth. The Government of Nepal has initiated study to develop eighteen cities under the concept of "One City - One Identity." (NPC, 2016) This approach aims to brand each city based on its unique socio-economic activities. By adopting this concept, cities can take pride in their distinct identities and potentially mitigate migration by focusing on comparative socio-economic activities. (Shrestha, 2019) Coordinated efforts between the government, local authorities, and stakeholders, along with community participation, are crucial for sustainable urban planning and governance. By adopting a holistic approach, Nepal can address the socio-economic impacts of migration and create sustainable and inclusive urban environments.

4. Challenges of Urban Development and Housing

Urban development and housing in Nepal have become crucial issues in recent years due to rapid urbanization and population growth. The country is facing numerous challenges that need to be addressed to ensure sustainable and inclusive urban development. Few important highlights of the Challenges of Urban Development and Housing in Nepal are as follows:

1. **Rapid Urbanization:** One of the primary challenges in Nepal is rapid urbanization with the declaration of new municipalities. Another cause of urbanization is increasing rural-to-urban

migration, which has resulted in the rapid growth of urban areas, putting immense pressure on existing infrastructure and services. (NUDS, 2015) A remarkable percentage of households in Nepal still lack basic facilities such as access to electricity for lighting (approximately 5% of households) and proper toilets (around 4% of households). (NSO, 2023). Achieving universal access to these essential amenities remains a challenge. The unplanned expansion of municipalities has led to overcrowding, inadequate housing, and a strain on resources, making it difficult to provide essential services to all residents.

2. Informal Settlements and Slums: The growth of informal settlements of 0.5 million population in 2015 (NPC, 2017b) and slums is another significant challenge. Many urban dwellers live in substandard housing conditions without access to basic amenities such as clean water, sanitation facilities, and electricity. These settlements often lack proper legal recognition, which hampers efforts to improve living conditions and provide necessary services.

3. Affordable Housing: In Nepal, housing right is projected by the act. According to the The Right to Housing act- “every citizen shall have the right to an appropriate housing”. The UNHabitat National Report in 2016 highlights the concerning issue of decreasing access to shelter for the poor in urban areas. This is primarily due to limited access to land and essential services. Furthermore, the rising housing prices have rendered housing unaffordable for a growing number of families. According to the Nepal Population and Housing Census (NPHS) 2021 (National Report), out of a total of 4,474,699 households in urban municipalities, 1,026,199 households (22.93%) have housing units made of mud-bonded bricks or stone. (NSO, 2023) Additionally, the census reveals that 125,055 households (2.79%) in urban municipalities have roofs made of thatch or straw. It is great challenge to improve the quality of house in urban areas. Similarly, according to the National Statistics Office (NSO) in 2021, there are a total of 75,520,066 building structures in the country. These buildings have various uses, with the following percentages: 71.7% are primarily used for residence, 10.1% for shed or storage, 6.3% are vacant, 3.1% for business/trade, 1.1% for educational purposes, 0.4% for industry/manufacturing, 0.4% for institutional use, 0.4% for government, 0.3% for hotels and lodges, 0.2% for health-related purposes, 0.1% for banking and financial institutions, and 5.9% for other purposes (such as kitchens). When looking at the provincial breakdown, 75% of the buildings in the Lumbini province and 68% in the Sudur Pashchim province are mainly used for residential purposes. This data highlights that housing for citizens constitutes the largest portion of the total building structures and land coverage for construction in Nepal. However, the lack of affordable housing options is a pressing issue in Nepal. The rising cost of land and construction materials, coupled with limited financing options, makes it challenging for low-income families to access decent and affordable housing. This results in a growing housing deficit, with a significant portion of the population living in inadequate and insecure housing.

4. Infrastructure Deficiencies: Inadequate infrastructure is a significant barrier to urban development in Nepal. Many urban areas lack basic infrastructure such as roads, public transportation, water supply, and waste management systems. (MoU,2015) The absence of proper infrastructure not only hinders economic growth but also adversely affects the quality of life for

urban residents. Green infrastructures (e.g., Ponds, open spaces, parks particularly children and senior citizen parks etc. in the municipalities are lacking. According to the periodic plan of municipalities, the available area per person in Kathmandu is only 0.25m², while in Dharan, it is 4.34 m². (NUDS, 2015) These figures fall significantly short of the recommended requirement of 9 m² per person as recommended by the World Health Organization (WHO).

5. Disaster Resilience: Nepal is prone to natural disasters, including earthquakes, floods, and landslides. Ensuring disaster resilience in urban areas is a critical challenge. Nepal is ranked 4th globally in terms of its relative vulnerability to climate change and 11th in vulnerability to earthquakes (Maplecroft 2011, BCPR 2004 cited in MoHA 2015 and adopted from NDR, 2017). The vulnerability of poorly constructed buildings and infrastructure poses a significant risk to the lives and livelihoods of urban dwellers. Strengthening building codes, promoting resilient urban planning, and implementing early warning systems are essential for mitigating these risks.

6. Limited Urban Planning: The absence of comprehensive urban planning contributes to the challenges faced by Nepal. Many cities lack proper zoning regulations, land use plans, and development guidelines. This leads to haphazard growth, encroachment on public spaces, and inefficient land utilization. Effective urban planning is crucial to guide sustainable development, ensure equitable distribution of resources, and promote a livable urban environment.

7. Insufficient investment in urban development and housing: Insufficient investment in urban development in Nepal has led to inadequate infrastructure and services in urban areas. The lack of adequate funding has hindered the construction and maintenance of vital infrastructure such as roads, bridges, water supply, sewage systems, and public transportation. This, in turn, has made it difficult for urban residents to access reliable and efficient services like electricity, healthcare, and education, significantly impacting their quality of life.

The estimated cost for addressing the existing infrastructure deficit in 58 municipalities is approximately US \$4.425 billion over a 15-year period (TDF, 2016). Additionally, more than 12% of the population in Nepal lives in rental houses, yet there is no provision for public rental or an organized rental housing system in place. The government has initiated the People's Housing program for low-income individuals, but the number of beneficiaries is limited, and the process of housing provision is slow due to governance and funding deficits. To address this issue, a substantial investment is required to improve urban infrastructure and housing, which is one of major challenges.

8. Demographic Transition: The demographic window of opportunity for the demographic dividend refers to a period when the growth rate of the working-age population (ages 15-64) exceeds the overall population growth rate, taking into account the growth rates of the elderly and young populations in relation to the working-age population. According to the National Planning Commission (NPC) in 2017, this demographic window began in 1992 and is projected to last for 55 years, ending in 2047. During this time, there is a favorable opportunity for economic growth and development as the working-age population outnumbers dependents, leading to a potential demographic dividend.

Similarly, Nepal will become an ageing society around 2028, and an aged society around 2054. (NPC, 2017a) National Planning Commission (NPC) in 2017, highlights the expected

demographic shift and the increasing burden on the working-age population to support the elderly population in Nepal. According to the analysis of the old-age dependency ratio for Nepal from 1980 to 2100, there is a consistent and significant increase projected, especially until around 2065. (NPC,2017a) In 1980, there were 5.9 individuals aged 65 and older per 100 individuals in the working-age population. However, by 2100, this ratio is estimated to rise significantly to 62.7 individuals aged 65 and older per 100 individuals in the working-age population. (NPC, 2017a). However, Nepal is experiencing a lag in urban planning and housing development strategies, which hinders the country from harnessing the potential benefits and effectively addressing demographic challenges.

5. Opportunities for Urban Development and Housing

Despite the challenges faced in urban development and housing in Nepal, there are also significant opportunities to address these issues and create sustainable and inclusive cities. By capitalizing on some key opportunities as explained below, Nepal can pave the way for positive transformations in urban areas.

1. Policy Reforms: Nepal has the opportunity to enact policy reforms in the changed context, such as the implementation of the federal system, increased capacity of the private sector, demographic transition to aged society, the growing trend of remittance and Non-Resident Nepali (NRN) participation, and an updated risk management mechanism like insurance for housing and infrastructures. These reforms should prioritize urban development and housing, which can be achieved through various measures, including formulating comprehensive urban planning policies, seizing opportunities, implementing land regularization measures, and establishing regulations to address housing affordability. By creating an enabling policy environment, the government can prepare and implement strategies to attract investments, encourage public-private partnerships, implement risk management mechanisms, utilize research and innovative technology, and foster sustainable urban development.

2. Slum Upgrading and Rehabilitation: The presence of informal settlements and slums in urban areas can be viewed as an opportunity for improvement. By implementing slum upgrading and rehabilitation programs, Nepal can offer improved housing, basic services, and infrastructure to marginalized communities, thus fulfilling the international commitment to achieve SDG-11 by 2030 for reducing population living in slums and squatter from 500 thousand to 125 thousand; the percentage of household units roofed with thatched/ straw roof from 19 to 5 and the percentage of households living in safe houses from 29.8 to 60. (NPC, 2017b) This approach has the potential to enhance living conditions, promote social inclusivity, and mitigate the proliferation of informal settlements.

3. Public-Private Partnerships (PPP): Encouraging collaboration between the public and private sectors can unlock resources and expertise for urban development and housing projects. Public-private partnerships can be utilized to finance and implement large-scale infrastructure projects, affordable housing initiatives, and urban regeneration programs. Nepal has the Public-Private Partnership and Investment Act 2019, and some local governments have also begun preparing Public-Private Partnership policies and acts, while others are actively utilizing them. The PPP approach can leverage the strengths of the housing and urban development sectors and accelerate

progress in urban development for the initiated by the GoN's projects like Smart cities, New Towns, Integrated Urban Development projects etc.

4. Sustainable and Resilient Urban Planning: Nepal can take advantage of the newly declared municipalities, which face housing deficits, inadequate infrastructure, and services. These municipalities have the opportunity to adopt sustainable and resilient urban planning practices by integrating environmental sustainability, disaster resilience, and climate change adaptation principles into their development strategies. This can be achieved through collaboration among relevant agencies at all levels of government, utilizing the opportunities provided by the federal system. Prioritizing green infrastructure, efficient resource management, and disaster-resistant construction techniques will make cities more livable, environmentally friendly, and resilient to future challenges. Furthermore, there is an opportunity to plan and develop the provincial capital cities of each province in Nepal.

5. Capacity Building and Community Engagement: Investing in capacity building programs and promoting community engagement empower local communities for active participation in urban development and housing initiatives. Through awareness raising, training, and involving communities in decision-making, Nepal can align projects with residents' needs, fostering ownership and inclusivity. Collaboration with development partners and establishing partnerships between government agencies and academic institutions support capacity development for delivering sustainable urban development and housing activities at the local level.

6. Innovation and Technology: Embracing innovation and technology can revolutionize urban development and housing in Nepal. This includes exploring smart city concepts, Green Buildings, leveraging digital solutions for improved service delivery, and adopting innovative construction techniques. Encouraging the involvement of Non-Resident Nepalis (NRNs) can bring investment, skills, international experiences, and innovative technology to the housing and urban development sector. The establishment of the National Building Research Centre by the Department of Urban Development and Building Construction (DUDBC) and the initiation of urban development research activities by the Nepal Academy of Science and Technology in the Bagmati province through the establishment of a Specialized Research Centre for Urban Development demonstrate efforts in this direction. Collaboration between government agencies, particularly DUDBC, and academic and research institutions in the country can facilitate research, innovation, and the implementation of appropriate technology including upgrading local technology for housing and urban development in Nepal. By leveraging technology and innovation, cities can enhance efficiency, improve infrastructure management, and provide affordable and sustainable housing options.

7. Utilization of Remittance: In the fiscal year 2022/2023, the number of young Nepali individuals seeking foreign employment increased to 771,000, representing a rise of 134,214 individuals compared to the previous year. (My Replica, 2024) The remittances sent by these individuals play a crucial role in Nepal's economy, contributing significantly to the Gross Domestic Product (GDP). Remittances serve as a stable and growing source of foreign exchange earnings, often comprising a substantial portion of Nepal's overall GDP. In the same fiscal year, remittances accounted for

22% of Nepal's GDP. (My Replica, 2024) Families receiving remittances from abroad typically utilize the funds for household consumption and to improve their living conditions. This includes upgrading housing by replacing thatch roofs with cement or corrugated sheets, converting mud floors to cement floors, or purchasing new houses in urban areas. Additionally, a portion of the remittances is allocated by families to improve sanitation facilities and water sources in rural areas. If remittance is used in conjunction with a mechanism for investment in the sustainable urban development sector and housing, it could yield significant positive results.

6. Policy recommendations for Addressing Challenges and Maximizing Opportunities:

To effectively tackle the challenges and maximize the opportunities in urban development and housing in Nepal, strategic policy interventions are essential. The following policy measures can be implemented to address the challenges and leverage the opportunities:

1. **Update Housing and Rental Policies:** The government should introduce new housing and rental policies that address the housing needs of low-income individuals and marginalized communities, considering the changes in the country's federal system. The existing National Shelter Policy 2012 is outdated and needs to be replaced with comprehensive policies that prioritize affordable housing options. Considering the demographic shift towards an aging society, housing for the elderly is an important area that requires attention and focus.
2. **Diverse Initiatives:** The new housing policies should encompass a range of initiatives, including the establishment of public rental housing schemes, organized rental housing systems, Green Building practices, Cooperative Housing projects, and mass affordable housing initiatives. These initiatives will cater to the diverse needs of the population and ensure access to decent housing for all.
3. **Provision of Basic Amenities and Services:** The housing policies should prioritize the provision of basic amenities and services within housing projects. This will ensure that residents have access to essential facilities such as water, electricity, sanitation, and transportation, creating livable conditions in housing developments.
4. **Encourage Private Sector Investment:** Private sector investment should be actively encouraged in the housing sector. This can be achieved by creating a favorable investment climate, providing incentives, and streamlining procedures for private developers and investors to participate in housing projects. Public-private partnerships can also be fostered to leverage resources and expertise.
5. **Service Plots and Land Pooling:** The housing policies should include provisions for supplying service plots based on integrated development plans and implementing land pooling projects. This approach will facilitate organized and efficient urban development, ensuring the availability of suitable land for housing projects.
6. **Develop Comprehensive Urban Planning:** Nepal should prioritize the development and implementation of comprehensive urban planning policies that account for rapid urbanization and population growth. This involves establishing zoning regulations, integrating risk-sensitive land use planning considering climate change and natural disaster risks, and adopting spatial

development strategies to promote sustainable, green, smart, inclusive, and resilient development. Taking into consideration of demographic transition to aged society, it is necessary to have urban planning focused on aging society as well. To effectively address these challenges, it is essential to develop a new National Urban Policy that replaces the outdated National Urban Policy of 2007.

7. Integrate Urban Agriculture with Urban Planning: To enhance sustainability and resilience, it is recommended to integrate urban agriculture into urban planning. Implementing the concept of a "Food Green City" can help cities and municipalities of Nepal incorporate urban agriculture practices, ensuring food security and promoting the efficient use of land with greeneries. (Shrestha, 2021, MoUD, 2016) Adopting technology like hydroponics in urban areas it is easier to achieve the concept of growing food in the city realizing Food Green City. (Shrestha, 2020) By preparing and implementing Integrated Urban Development Plans, Nepal can achieve a holistic approach that integrates urban agriculture, environmental conservation, and sustainable development. The United Nations Division for Inclusive Social Development strongly supports the New Urban Agenda and emphasizes the importance of incorporating an intergenerational perspective in the design of family-friendly cities. (UNDESA and et al., 2024) In the context of Nepal, prioritizing the development of family-friendly cities is beneficial as it promotes citizen happiness and enables citizen-centered urban development.

8. Slum Upgrading and Rehabilitation: Implementing slum upgrading and rehabilitation programs is crucial to improving living conditions in informal settlements. This can be achieved through a Mass Social Housing or Cooperative Housing with Housing loan or grant with motive to provide an integrated settlement with combination of infrastructure development, provision of basic services, land regularization, and tenure security. Additionally, community participation and engagement should be encouraged to ensure the inclusion and empowerment of slum dwellers in the decision-making process.

9. Capacity Building and Awareness: Invest in capacity building programs to enhance the skills and knowledge of urban planners, policymakers, and community leaders. This includes training programs on sustainable urban development, participatory planning, and project management. Additionally, awareness campaigns should be conducted to educate the public about their rights, responsibilities, and the benefits of sustainable urban development.

10. Embrace Innovation and Technology: Nepal should prioritize the integration of innovation and technology in urban development and housing. This involves exploring smart city concepts, adopting Green Building practices backed with innovative technology for using rammed earth block, ACC block, Bamboo etc., leveraging digital solutions for improved service delivery, and implementing innovative construction techniques. Encouraging the involvement of Non-Resident Nepalis (NRNs) can bring valuable investment, skills, international experiences, and innovative technology to the sector.

11. Establish Research Centers: The government should continue establishing research centers and specialized institutions, such as the National Building Research Centre and the Specialized Research Centre for Urban Development. These centers can facilitate research, innovation, and the development of appropriate technology for housing and urban development in Nepal. Collaboration between government agencies, particularly the Department of Urban Development

and Building Construction (DUDBC), and academic and research institutions is crucial. Science-Diplomacy is also helpful to expand scientific knowledge, enhance innovation and green technology and joint research opportunities.

12. Upgrade Local building Materials and Technology: Alongside embracing new technologies, efforts should be made to upgrade and enhance local technology for housing and urban development and utilizing local building materials like clay, bamboo, wood, stone etc. This can involve integrating traditional building practices with modern techniques, promoting sustainable materials, and incorporating local knowledge and expertise.

7. Conclusion:

The housing and urban development sector in Nepal poses challenges and opportunities that require strategic planning, policy interventions, and collaborative efforts. Rapid urbanization, affordability issues, weak governance, and demographic changes pose challenges, but transformative change and sustainable development are attainable. Consideration of migration trends and demographic shifts is crucial for effective urban planning and resource utilization. By implementing policy reforms, sustainable practices, and inclusive approaches, Nepal can address these challenges and establish a positive urban trajectory. Collaboration among stakeholders, increased investment, and effective financing mechanisms are vital for success. Continuous research, innovation, and monitoring ensure interventions align with evolving needs. It is crucial to prioritize the demographic shift towards an aging society when planning housing and infrastructure development in the country. Through these strategies, Nepal can achieve holistic, resilient, and inclusive urban development in the future.

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