

Problems and Prospects of Urbanization in Kathmandu Valley

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Abstract:

The capital of Nepal, Kathmandu, is undergoing rapid urbanization with issues like overcrowding, infrastructure strain, and environmental challenges. Informal settlements highlight resource disparities. The study explores urbanization's impact on cultural identity and social dynamics. Effective governance is crucial for managing urbanization and promoting social inclusion, but Nepal faces challenges like slow law implementation and corruption. Governance is pivotal for development, addressing issues like corruption and law enforcement. Despite challenges, urbanization presents opportunities for new industries and social services. The study aims to identify prospects for sustainable urbanization in Kathmandu, emphasizing green infrastructure, sustainable transportation, and community-based initiatives. A sociological perspective aids in understanding social dynamics and potential opportunities arising from urban growth.

Keywords: Environmental Degradation, Pressure on Infrastructure, Social transformation, Urbanization

1.0 Background

1.1 Urbanization

Urbanization is a global phenomenon that significantly affects cities and their inhabitants. In today's over half of the world's population lives in urban areas although there is still substantial variability in the levels of urbanization across countries. The coming decades will bring further profound changes to the size and spatial distribution of the global population. The continuing urbanization and overall growth of the world's population is projected to add 2.5 billion people to the urban population by 2050, with nearly 90 per cent of the increase concentrated in Asia and Africa. At the same time, the proportion of the world's population living in urban areas is expected to increase, reaching 66 percent by 2050 (ADB,2010).

The planet has gone through a process of rapid urbanization over the past six decades. Since 2015, the international community has adopted several key agreements to guide development. The 2030 Agenda for Sustainable Development, Paris Agreement, New Urban Agenda, Sendai Framework for Disaster Risk Reduction and Addis Ababa Action Agenda collectively form the backbone of international development policy, recommendations, goals, targets and indicators for Member States. In each of these documents, local governments are recognized as important partners in the drive to a more sustainable future. The role of cities is woven throughout this tapestry of agreements, most prominently in SDG 11 and the urban dimension of the SDGs (MoUD,2017).

1.2 Urban Governance

Urban governance refers to how government (local, regional and national) and stakeholders decide how to plan, finance and manage urban areas. It involves a continuous process of negotiation and contestation over the allocation of social and material resources and political power. It is, therefore, profoundly political, influenced by the creation and operation of political institutions, government capacity to make and implement decisions and the extent to which these decisions recognise and respond to the interests of the poor. It encompasses a host of economic and social forces, institutions and relationships. These include labour markets, goods and services; household, kin and social relationships; and basic infrastructure, land, services and public safety (Devas et al., 2004: 1). Large gaps often exist between poor and better-off urban residents in terms of access to social, economic and political opportunities (particularly decision-making) and the ability to participate in, and leverage, the benefits associated with urban living.

2.0 Urbanization in Global Context

Urbanization is the process of concentration of population in certain localities. It is the process of changing rural area to urban (Subedi, 2011) by increasing the proportion of population living in urban areas.

It is assumed that more than half of the world's population lives in cities, the majority of which are in the global south and predicted that by 2050 about 64% of the developing world and 86% of the developed world will be urbanized. Urbanization is mostly contributed by moving from rural areas to cities or to densely inhabited area. It is the structural change from

agricultural based employment to non-agricultural, industrial pattern of employment where basic facilities area available.

According to the Thompson and Lewis "urbanization refers to the process whereby an increasing country's population comes to live in cities ". Densely populated area which pursues the rapid growth of population, specialization, industrialization, infrastructure and economic development is generally known as urbanization (Chapagain, 2008).

Mostly urbanization is related to diversity of people in terms of caste/ethnic and religious composition, economic growth, availability of skill and quality of human resources. UNFPA (1996) defined 'urban area as having administrative unit, population concentration, proportion of population in non-agricultural occupation and availability of infrastructural facilities'.

3.0 Urbanization in context of Nepal

Nepal is the least urbanized country in the world. However, urbanization is gradually taking place even through the country is still predominantly rural character because the more than 40 percent population are under agricultural occupation and living far from use of modern technology .However, the urbanization has become the vital agenda for development of Nepal (CBS,2021).

The history of Nepalese urbanization began in Nepal when 2052/054 population census provided data of 10 prominent settlement having 2.9 percent population. This figure has highly changed. By 2015 there have been 217 municipalities where 41 .7 percent population of the country. Their nature of urban development vary in temporal and spatial context from 2052/054 to 2015 AD. In this paper, it has attempted to review the state of urban places, population, their changing trend and pattern in Nepal.

4.0 Urbanization trends and Implications in Nepal

Three mutually reinforcing transitions are underway in Nepal. A demographic transition that is resulting in more people entering the labor force than are leaving it, a spatial transition that is resulting from increased migration from the countryside to towns and cities, and an economic transition resulting from the demise of the traditional subsistence economy, declining contribution of agriculture to the GDP, and the search for new livelihood options.

While increasing urban growth and urbanization is a consequence of these transitions, the strategies pursued in the planning and management of urbanization will determine the direction and pace of Nepal's economic transformation.

The level of urbanization¹ in Nepal remains low but the pace of urbanization has remained faster and is likely to remain so in the future. Physiographic and connectivity characteristics are important determinants of urbanization which result wide variation in the regional levels of urbanization (Gautam,2006).

A characteristic feature of Nepal's urbanization is high level of urban primacy. High urban growth locations characterize Kathmandu valley, Pokhara valley, Inner Terai valleys and locations along major road corridors. Urban densities display the nature and character of urban areas and have a bearing on urban services and infrastructure.

Migration is the largest contributor to urban growth and is likely to remain so in the future. Contributors of urban growth are (i) natural increase of population, (ii) reclassification of urban areas resulting in change in urban boundaries and population, and (iii) migration. In fast growing urban areas in-migration is often the major contributor.

Urbanization and urban development is influenced and oriented by key policies of the state in sectors such as transport, agriculture, tourism, industry etc in addition to the policy pursued in the urban sector. The economic, spatial and mobility trends in Nepal point towards the inevitability of increased urbanization and urban growth in favored locations and regions. While urbanization and urban growth appear inevitable, urban areas are beset with a host of critical issues related to urban development, management and institutions. Both a national/regional and urban/municipal perspectives need to be brought to bear in dealing with urbanization and urban growth issues (Pokhrel et.al.,2018). The existing urban form and function depicts political overshadow over technical rational in declaring municipal status. Analysis of existing and new municipalities portrays a grey picture of urban growth, which is associated with critical issues and deep rooted problems. Unbalanced growth, environmental concerns, deficit of basic infrastructures, unplanned physical growth, increasing urban poverty, weak financial and institutional capacity are some of the common feature of these urban centers that is aggravated by insufficient investment in urban sector development.

Municipalities in Nepal are de facto urban areas. In towns and cities, which were evolving throughout the history, the traditional core consisted of a densely built area comprising of narrow streets and traditional load bearing masonry buildings. In newly emerging townships, however, such cores are found to be either small or non-existent. In townships which are spontaneously built along the highways, the cores are marked by a dense ribbon development (Regmi, 1965).

The urban expansion is then usually found to radiate from the center to periphery along the arterial road or along the connector road that has branched out from the highways. Most towns are generally found to have single core. However, a large urban agglomeration such as the Kathmandu Valley and emerging urban corridor along the major highway corridor of terai has multiple cores. These large urban region and corridors are found to extend in a radius of more than 15-20 km. The high density of the core is found to gradually decline towards periphery surrounded by agriculture dominated rural area (Pradhan,2004).

In the valley, there is a highly dynamic spatial pattern of urbanization. The urban built-up areas, which are used as an indicator of urbanization, had a slow trend of growth in the 1960s and 1970s but have grown rapidly since the 1980s. The urbanization process of individual uncontrolled housing practices has developed fragmented and heterogeneous land use combinations in the valley, but urban growth has gradually become more synchronized in recent decades. The dynamic pattern of urbanization, particularly for the last decade, has been greatly influenced by different driving factors: physical conditions, public service accessibility, economic opportunities, land market, population growth, political situation, and plans and policies. These factors have played important but different roles in the core, fringe, and rural areas.

Municipalities are under tremendous financial strains to keep pace with increasing infrastructural needs and upgrade their quality and improve overall service delivery. The potential resources in the municipalities are yet to be mobilized to address the financing need of the cities. Besides, the institutional capacity of municipalities to mobilize potential resources remains limited.

Table-1 urbanization trend in Nepal

SN	Description	Census year				
		1981	1991	2001	2011	2021
1	Number of municipality	23	33	58	58	293
2	Total population (Million)	15	18.5	23.15	26.49	29.19
3	Urban population (Million)	0.96	2.28	3.22	4.52	19.29
4	Level of urbanization (%)	6.3	9.11	14	17	66.08

(CBS,2021)

5.0 Urbanization Trends and implications in Kathmandu Valley

5.1 Historical Background of Kathmandu Valley

Geological evidences support the popularly accepted mythological tales that initially Kathmandu Valley was once a huge lake. The Swoyambhu Purana adds that Manjushree drained the waters of the lake by cutting the ridge at Katuwaldaha, and then established a town around the hills of Swoyambhu and Guhyeshwari. Historians believe that the first settlers were of Tibeto-Burman descent that had expanded in north east of India. Kiratis quickly adapted themselves to the KV and began clearing the forests in the lowlands, revealing the great agricultural potential of the black soil of the valley for cultivation. The Kautilya chronicle of the 4th century B.C mentions that agriculture was highly unpopular at that time and lot of effort was made to import the grain from a distance, suggesting that the early economy of the valley was based largely upon trade and commerce. Later in the 2nd century B.C, Buddhist missionaries sent by the emperor Ashok entered the valley, along with Charumati, the daughter of Emperor Ashok to promote Buddhism and teach the inhabitants about the agricultural practices and handicraft skills (Regmi,1960).

Historical manuscripts record that Manjushree built a town between Swayambhu hill and Guhyeshwari and annexed a new town called Sankasyanagari. Later, towns like Bishalnagar and Devpatan were established on Tars3. Consequently, brick was soon used for building purposes as the inhabitants discovered that the black soil made a fairly strong and durable brick. During the 800 years of Licchavi reign after the Kiratis, Kathmandu Valley advanced in trade, commerce, agriculture, art and architecture and the old city of Devpatan also expanded. Towards the end of the 7th century A.D, the town of Patan is said to have been established and was probably determined by the location of four Buddhist stupas by the missionaries of Ashok in the second century B.C. Patan was enlarged and consolidated into a compact town, which is believed to have been given its circular form to resemble the “Brahmachakra” of Gautam Buddha. A Licchavi king established a town in the bank of Vishnumati River out of a rapidly growing village and it was named Kasthamandap or Kathmandu. The town was planned to

resemble the sword of Manjushree. The handle of the sword is supposed to face south towards the confluence of the Bagmati and the Vishnumati River, while the blade is through to point north to Thamel (Shrestha, 2019).

Later, Mallas came into power as the rulers of the country, who introduced irrigation schemes in the areas of the arable lands increased in the valley. Many clearings were made in the areas lying east of the Bagmati River particularly near Sankhu and Bhaktapur. Due to the prosperous trade position of Kathmandu, the Tibetan market of Lhasa had come under its commercial domination. Although safeguarded by nature, the unrest in many parts of north India resulted in a need of defense of towns in KV. This led to the development of compact settlements with narrow streets and congested courtyards. They were located on the upland terraces with fields on either side.

Thimi and Nagadesh settlements were formed on the route of Bhaktapur and Kathmandu. The city of Bhaktapur was established towards the middle of the 13th century, which had by then become an important center for trade. The town was shaped in the conch-shell shape resembling the hand of Lord Vishnu. The King's palace was situated in the center of the town and streets radiated from the palace square in all the directions.

It had different Toles which consisted of Nanis or Bahals. According to the social classification, castes were grouped in concentric patterns in the town, with the lowest class such as sweepers having their dwelling in the periphery of the town. The cultivators to be near their fields, lived in the next ring, while artisans and craftsmen settled in the next inner ring (Shrestha & Singh, 1972).

The Shah regime ended the Malla dynasty after the Battle of Kathmandu in 1768, marking the beginning of its modern era. Kathmandu was adopted as the capital of Nepal.

During the Rana regime, Kathmandu's inclination shifted to pro-British architecture and Western European architecture. The Rana rulers built palaces in prime agriculture land in the city periphery; around which new settlements developed since these areas provided facilities such as drinking water, electricity and good roads. Thus began the process of sub-urbanization of Kathmandu and its encroachment on productive agricultural land. With the end of Rana rule, marked the modern development of Kathmandu Valley with the drastic transformation of agricultural landscape into urban form, due to in migration and vehicular arteries (Haack & Rafter, 2006).

5.2 Urbanization Trend of Kathmandu Valley

Kathmandu valley, a part of the middle mountain physiographic region, lies in the Bagmati river watershed. It covers an area of 721.87 Sq. km. The valley is gifted with fertile soil and mild climatic condition. Agriculture, forestry, agro forestry based cottage industries, trade and crafts specialization have characterized the urban economy of the valley from very early historical periods.

Moreover, it was during the insurgence period from 1996 to 2006, the valley witnessed a heavy influx of migrant from all across the country for security reasons. Also being the national capital as well as economic and service centre, it has ever since attracted people, who are in search of economic opportunities, as well as health and educational services.

The traditional cores in many instances are however found to be quickly gentrifying with the newly built reinforced concrete buildings that tend to be systematically replacing the traditionally built masonry structures of wood, brick and stones. In ascending tendency, tall buildings occupied either by multiple families or by businesses and offices have become the land use norm. In the large city like Kathmandu, the land use functions are becoming specific and specialized. Banks and financial institutions have now come to locate at the center, while businesses have come to locate in its surrounding—especially along the key arterial roads.

Consequently, parking and congestion have come to be critical concerns at the core. Art and culture are also indicators of the well-being of the society. The distinctiveness the civilization of the Kathmandu valley is reflected in its culture, art, architecture and the traditional organization and usage of space. Rapid urbanization and urban sprawl, increasing migration, increasing congestion and traffic within the city core, loss of cultural symbolism and rising consumerism have all contributed to the erosion of the values which led to the unprecedented achievements of the Kathmandu valley (Thapa & Murayama,2010).

While the heritage, art and architecture of older cities have to be appreciated as integral part of urban development, the new cities have to be facilitated to contribute to the development of culture, art and architecture. Preservation of heritage sites, promotion of museums, art galleries, theatres, music, cultural events both traditional and modern are an integral part of the development of cities.

Historically, Kathmandu Valley has enjoyed sustainable development practice and maintained an ecological balance of urban development through various physical features; cultural practices as well sustainable opportunities for economic development. However, at present, the rapidly growing and modernizing Kathmandu Valley is facing serious problems of sustainability in all fronts: economic, social, environmental and ecological (Regmi,1965).

The soil condition of the valley as it has deposition of sedimentary layer, has amplified its vulnerability to earthquake. Despite the prevalent vulnerability, its economic and demographic dominance in the national landscape is significant. Kathmandu valley is the hub of Nepal's urbanization. Its economic dominance is depicted by its contribution to national GDP. Large amount of national GDP is contributed by the valley. Though, Kathmandu has been urbanizing rapidly, its urban development has not been able to catch the pace.

The Kathmandu valley has three districts and currently comprises of 2 Metropolitan cities, 16 municipalities and 3 rural municipalities. Since the rural municipality territories are mostly beyond the Kathmandu valley boundary, the valley in entirely can be considered as an urban area. Being a capital city, Kathmandu valley will face ever increased population in-flow which definitely will require a whole range of infrastructure, services, housing, job opportunities and land for further expansion and development.

The urban expansion could threaten agricultural land and food supply, increase traffic volumes and create immense pressure on overall urban environment. In this regard, Kathmandu valley requires a planned urban development approach that is much sensitive towards urban environment, urban regeneration and conservation of traditional settlements, monuments and multi-hazard risk resilient urban infrastructure.

Beside that, unprecedented population growth has put tremendous pressure on the limited resources of the valley resulting in rapid land use changes, land degradation, land fragmentation, poor environmental quality. Similarly, ever increasing gaps between demand and supply of urban infrastructure, poor water and sanitary conditions and overall depletion of quality of life, thus bearing heavy adverse effect of urbanization in the tourism sector thus affecting the overall economy of the country (Shrestha,2009).

Table-2 Number of household, total population and population density

SN	Area	Number of households	Total population	Average household size	Population density	Annual growth rate
1	Nepal	6666937	29164578	4.37	198	0.92
2	Kathmandu	544867	2041587	3.75	5169	1.51
3	Bhaktapur	108503	432132	3.98	3631	3.35
4	Lalitpur	140367	551667	3.93	1433	1.58

(CBS,2021)

6.0 Urban planning efforts and impacts in Kathmandu valley

In the past, towns of Kathmandu valley were built as compact settlements with designated land use. During the early 1960s, modern planning started. Planning based on master plans and physical development plans were prepared. Until the early 1980s, we believed that we could control the growth rate of Kathmandu using the conventional physical planning tools. During the 1980s and the 1990s, we some how managed planning to steer the urbanization process using innovations such as IAP, GLD and land pooling, urban upgrading, affordable standards for housing etc. Beginning from 1969, various plans have been formulated at different times for efficient development of Kathmandu Valley.

Although the federal system is in the offing, there is still a tendency to concentrate activities in Kathmandu. When we talk of urban future in Nepal, we need to consider towns and cities outside the metropolis. They did not grow as expected. As Kathmandu is the seat of government and as there is heavy government spending here, the developments in other areas have been eclipsed. In the context of balanced urbanization, the population of terai towns did not increase as expected. Kathmandu continues to grow. With more openness and recent changes, its primacy has increased all the more.

Investments in urban areas, Kathmandu in particular, increased due to two reasons: the success of planning and their relative attractiveness due to conflicts. The attractiveness is also due to the negligence of the government in making the polluters pay; and there is no need for the rich and the strong to pay for the environmental damage. They do not see any risk in defying rules as they think that they could manage it through grafts. The financial sector is relying heavily on land and land speculation; and the prices of real estates are increasing. Recently, the government has become weaker to adopt measures to protect from the evils of urbanization. As a consequence, there is a lack of political will to make planning more innovative.

Some plans were implemented, whereas others still seek implementation (KVDA, 2016). The chronological development of such policies and planning documents and their central objectives are listed below:

- **In 1969, Physical Development Plan of KV** was prepared that recommended promotion of urban development in the southern part of the valley.
- **The KV Physical Development Plan, 1972** recommended development in the plain land area and conservation of wetland area.
- **Land Use Plan (1976) of the KV** was prepared along with Building Construction Standards. Also, Kathmandu Valley Town Development Committee was established with its 3 district offices.
- **Kathmandu Valley Urban Land Policy Study (1986)** was initiated. The study provided detailed information on geographical situation, land use and ownership and proposed policy for urban land use development.
- **Urban Development and Conservation Scheme (1988)** launched programs for conservation of wetlands and riverbanks of the Kathmandu Valley.
- **KV Development Authority Act (1988)** which stressed on establishment of KVDA. Under this act, function of KVDA was stated as an authoritative agency for Planning, Developing, Monitoring, Regulating and Prohibiting activities in the Kathmandu Valley.
- **KV Urban Development Plan and Program (1991)** recommended Kathmandu Valley to be an extended form of Kathmandu City. Therefore, the valley should be regarded as the primary administrative, cultural, tourism, and ancient monuments conservation centre and developed likewise.
- **Town development Act (1998)** provided the legal basis for town planning in any areas designated as a “Town Planning Area”, which is still a strong document for Town Development Committee to conduct any land pooling or guided land development projects.
- **Environmental Plan and Management of KV(1999)** mainly dealt with environmental and ecological issues and sustainable development of the valley. It recommended formulation of valley wide land use plan, restriction of development in environmentally sensitive areas, establishment of Eco-Town, development of the master plan for sewerage network and conservation of traditional settlements in the Valley.
- **Local Self-Governance Act and Regulation (1999)** provided the legal basis for local bodies to prepare and implement plans and programs. It stated different functional roles for local bodies, like DDCs VDCs and Municipalities, in preparation of annual and periodic plans and empowered them to prepare land use plans, by-laws and master plan of infrastructures, as well as their construction and maintenance.
- **The National Urban Policy (2007)** focused on promoting sustainable urban environmental. The policy restricted development in environmentally sensitive areas, with emphasis on disaster risk reduction and mitigation. It encouraged the local bodies to develop action plans to mitigate vulnerability imposed by disasters such as earthquake,

landslide and fire. It also encouraged local bodies to develop methodology for construction of safe, affordable and environmentally viable buildings and adoption of locally available traditional knowledge and skills. The policy suggested periodic updating of the existing building codes and its strict enforcement. Planning efforts have greatly influenced the development in Nepal. These have succeeded in attracting capital to urban areas. New resources are opened up and urban land is more easily available. People were empowered as they become engaged in community action on the provision of urban services. Land pooling projects opened up lots of resources and made them more accessible to people. Enormous investments were made in housing and real estates, specially, in Kathmandu valley.

- **National Urban Development Strategy** (2017) there are four thematic areas of urban development urban system, urban infrastructure, urban economy and urban environment. These thematic areas are aimed to achieve with four mechanisms for implementation like urban land, urban investment, urban finance and urban governance. Which are conducted through five guiding principles of sustainability, Resilience, Inclusivity, Green in asset and technology with efficiency in service delivery.

7.0 Problems of Urbanization in Kathmandu valley:

In Nepal, Urbanization has been appearing as basic needs for the people of all areas no matter whether they belongs to rural or urban. So the urbanization rate is rapidly growing in Nepal and Nepal has becomes one of the most fastest urbanizing country in the world. The scenario is same for the city like Kathmandu. So, though the urbanization trend is very high, the facilities are not as needed because of lack of resources. Main problems arising in the cities are given below.

7.1 Overpopulation and congestion

Rapid urbanization has led to an exponential increase in population density, resulting in congested roads, affordable housing shortages and inadequate urban infrastructures.

7.2 Unplanned urban growth

The lack of proper urban management has resulted in haphazard development, encroachment on public space, and a scarcity of green areas. the lack of effective local level land use, zoning and land sub-division policy.

In most cases, inner roads are developed by widening the existing traditional foot trail by proportionate contribution of land from the landowners of adjoining plots. Houses are built without much consideration to the land use, posing difficulty in providing basic urban services. Keeping aside some exceptional cases, the municipality or the town development committee completely lacks control over the specific use of land.

Moreover, the unprecedented rise of urban land price has encouraged land speculation that has led to the indiscriminate sub-division of agricultural land (Joshi, 2002). The construction of buildings too has been taking place more rapidly on the periphery of municipalities, owing to reasonable low price of land and feeble by-laws.

7.3 Infrastructure service deficit

The existing infrastructure service is strained and unable to accommodate the growing population's demands for affordable housing, transportation, water supply and waste management etc.

7.4 Environmental degradation

Increased urbanization has led to deforestation, air pollution and the depletion of natural resources, negatively impacting the valley's ecosystem.

7.5 Affordable housing issues

The influx of people seeking better opportunities has contributed to a shortage of affordable housing leading to slums and informal settlements.

7.6 Inadequate waste management

The city's waste management system is struggling to cope with the increasing volumes of waste generated leading to environment and health hazards.

7.7 Water scarcity

Over extraction of groundwater and mismanagement of water resources have contributed to water scarcity.

7.8 Urban poverty

The concentration of opportunities in urban areas has widened the gap between the rich and poor, leading to urban poverty and inequality.

8.0 Prospects and opportunities of urbanization in Kathmandu valley

Despite the challenges, urbanization in Kathmandu valley also offers several opportunities:

8.1 Economic growth

Urbanization can serve as a catalyst for economic growth, creating job opportunities and attracting investments.

8.2 Improved infrastructures

Proper urban planning, management and investment can lead to better infrastructure and services.

8.3 Social and cultural exchange

Urban centers promote social and cultural exchange, fostering creativity and diversity.

8.4 Education and healthcare

Urban areas generally offer better access to education and healthcare facilities.

8.5 Technological advancements

Urbanization can lead to the adoption of smart technologies and sustainable practices for efficient resource management.

9.0 Conclusion

Kathmandu has been always a dream city for all Nepali as it has tremendous opportunities to grow, live, and develop all the aspects of human life so urban life has been changing time and again. So, Urbanization in Kathmandu Valley presents both challenges and prospects of development.

By adopting sustainable urban planning, investing in infrastructure, implementing laws and policy and establishing effective coordination among different stakeholders, the region can

overcome its urbanization related problems and create a more vibrant urban landscape for the future. With the right approach, Kathmandu valley has the potential to become a model of balanced urban growth and development. By adopting a sociological perspective to study the problems and prospects of urbanization in Kathmandu valley, policy makers, planners and communities can gain insights into the social dynamics, challenges and potential opportunities that arise urban growth.

10.0 Recommendations

According to Regmi (1960), Urbanization in Kathmandu Valley is almost 3000 yrs old as the Saankhu civilization is still alive and it is said that Saankhu civilization is more than 3000 yrs. old. Despite the various problems and challenges, urbanization in Kathmandu Valley is offering a platform for the growth of new industries, new relationships, entrepreneurships, and development of social services.

Therefore, the present study is an attempt to identify the prospects for sustainable urbanization in Kathmandu valley policy in terms of promoting green infrastructure, sustainable transportation system, community-based initiatives and social policies that address socio-economic disparities.

So, to make it sustainable, different measures have to be taken and some important measures which have been practiced in many parts of the world are suggested here.

- **Comprehensive urban planning**

Develop and implement a well-thought-out urban plan that considers sustainable development, infrastructure and environmental conservation.

- **Investment in infrastructure**

Prioritize investment in transportation, waste management and sewage systems to support the growing population.

- **Affordable housing**

Promote affordable housing projects and regulate the real state market to address the housing shortage.

- **Public awareness**

Educate the public about the importance of sustainable living, waste management and environmental conservation.

- **Transportation management**

Develop efficient public transportation systems to reduce traffic congestion and air pollution.

- **Green space**

Create and protect green spaces to improve the overall quality of life and preserve the natural environment.

- **Conservation of Rivers**

Activities such as sand extractions, solid waste dumping, sewer connections, squatter settlements along river should be prohibited.

- **Conservation of Forest and Watersheds**

There was a huge agricultural and forest land in Kathmandu valley. As the immigration increased in the Valley, the agricultural lands decreased rapidly but the pace of deforestation was little bit low in comparison with agriculture land. Hence, the forest and natural water sources within 20 km. range from Kathmandu should be protected against landslides and to develop the areas for tourism attractions.

- **Conservation of Cultural Heritage and Historic Settlements**

Culture is in the blood of the people of Kathmandu valley and they wake up with Culture and sleep with culture. Thus special programs should be implemented to develop and conserve the cultural, religious and tourist sites including tangible and intangible assets.

- **Improvement and Extension of Ring Road and Highways**

Service roads beside the ring road should be developed together with development of adequate parking lots and non-motorized transport-friendly infrastructure in the core city area with the widening and improvement of the arterial roads.

11.0 Way forward

There is a growing transfer of assets in Kathmandu and land prices are increasing dramatically. The shift towards a more consumption-oriented society is a phenomenon of recent origin. The features of a typical metropolis such as food plaza and fast food chains, shopping malls, departmental stores and apartment buildings are coming up. There is a rapid transition to unsustainable life styles with high energy use. The other set of forces is linked with primitiveness, deprivation and poverty. There is severe lack of investment opportunities in sectors other than real state. The following will help planning to adapt to the changing needs:

- Urban planning ought to be integrated with other national policies. It should influence other policies for ensuring sustainable provision of goods and services in a fair manner. This will help to make economic centers and city region more competitive.
- Eco-innovations and eco-designs will make buildings and cities more sustainable. It is necessary to use acceptable indicators to test the sustainability of our buildings and urban design.
- Planning should be integrated with the concept of good governance based on effective delivery of services. Planning will work only where there is good urban governance and where the urban poor are brought into the decisions that affect their lives.
- Land development projects have enhanced the access to resources including urban land. These areas should be further developed as eco-towns using eco-innovation and sustainable designs with massive use of community-based resources. These should help to encourage people to be engaged in productive activities and create employment.
- Planning should urge the corporate sector to be more enterprising with more social responsibility and more investments in research and development.
- Planning should help local government to produce and sell services and recover costs. Sustainable urban financing should be the focus of public policy. City marketing helps to attract industries that can pay for the services.

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- Planning should be backed by environmental assessments as well as by research findings on adaptation to climate change. It should also help to ensure that cities contribute less to greenhouse gas emission.
- Planning should create inclusive cities composed of safe neighborhoods with a range of dwellings to accommodate diverse needs.
- Housing and building codes should focus more on health, safety and quality of life.
- Viable public transit system should be developed. Cities can create incentives and promote policies that favor mass transit.
- Heritage sites, temples should be maintained. Parks, open spaces and rivers should be preserved.

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