TRENDS OF URBAN GROWTH AND URBANIZATION IN

FAR-WESTERN TERAI OF

NEPAL

SUMMARY

Submitted for the award of the degree of

DOCTOR OF PHILOSOPHY

IN

GEOGRAPHY

Submitted By

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2016

Summary of The Study

The present study is concerned to the trends of urban growth and urbanization in Far-Western Terai of Nepal. The study area of Far-Western Terai presents varieties of socio-cultural, economic and demographic scenario due to urban growth and urbanization. Mainly the situation of urban growth in Terai area is different from the other part of the country.

According to the nature and situation of urbanization in the study area, the research is mainly focused on urban population growth, urban facilities, urban-rural differences, urban land use and morphology and general scenario of urban environment of Far-Western Terai. This region is the most important trading, food production and educational centre of the Far-Western Development Region. Eradication of malaria from the region was followed by rapid change in the size of population, socio-economic development, political and administrative activities in Far-Western Terai. With the construction of East-West highway (Mahindra Highway), Terai area developed rapidly. Due to the development of different activities, the Terai has become a common destination for migration from the hills and mountains in Nepal. So, Terai region has thus experienced rapid urban expansion during the recent period. Therefore, the study area is become emerging region of urbanization in Nepal. No any study has been conducted so far on the urbanization situation of Far-Western Terai of Nepal. Thus, there is a need to study about the urbanization and related issues of this area.

The research work is mainly based on primary and secondary data. The study area i.e. Far-Western Terai is located in the southern part of FWDR of Nepal. This development region constitutes two zones and nine districts. Among the nine districts, seven lies in hill and mountain region and two in the Terai region of Far Western Development Region. Administratively, the whole Far-Western Terai area comprises of two districts, three Municipalities (Bhimdatt, Dangadi and Tikapur), seven constituencies and 61 VDCs.

The study area extend from 28º32' North to 29º28' North latitude and 80º03' East to 81º18' East longitude. The total area of the study area is 4835 sq. k.m. which occupies 24.74% of the total area of FWDR. Far-Western Terai gently slopes towards the south with the altitude variation from 109 meters to 1950 meter above sea level. Topographically, this area is plain area which lies in south at the foot hills of mountain range of Far-Western Development Region.

The study area is also rich in the river network system. The Karnali, the Mahakali, and the Mohana are the major rivers and the Kutiya, Pathariya, Kanara, Gulara, Sajgadh and other several small and seasonal rivers flow in the Far-Western Terai. The climate of the study area is tropical in nature with monsoon. The maximum temperature is observed in the month of May and minimum temperature in the month of January. Also the highest average rainfall month is July and the lowest rainfall month is November. So November is the dry month, January is coldest month, July is the heavy rainfall month and May is the hot month in the study area.

The land of Terai is very fertile for agriculture. The soil types of Far-Western Terai can be classified in the three categories due to such geo-structures. The rocks found in the Churia area, gravel, sandy loamy, boulder and cobbles are found in Bhabar area and sandy loamy soil is found in southern plain terai. Far-Western Terai which is also extended part of Indo-Gangetic plain has hot and wet summer. So in this place mostly the hard wood evergreen forests are available in the study area. Tropical and sub-tropical evergreen forest is found in the Terai, Bhabar and Churai (Siwalik) areas. The major land use of the study area is if different categories. Out of the total area of FWT, 57.66% covered by forest, 32.69% by agricultural land, 2.33% by grass land, 2.14% by shrub and 4.11% by other uses (rivers, pounds, roads, sand and settlements etc.)

Demographically Far-Western Terai has a total population of 1226957, according to 2011 census report with a male population of 594459 and female population of 632498, sex ratio has 92.99 and average household size has 5.46 persons per family. The population size of this area has been increasing rapidly over the time. It was only 235189 in 1952/54 that become 1226957 in 2011. Not only the size of population but also the population density has also drastically increased. The spatial pattern of population distribution in the study area differs from place to place.

Far-Western Terai is the land of cultural and ethnic diversity. The migrants in this area represent almost all districts of Nepal. So, this area is the place of multi-cultural, multi-religious and multi ethnic area of Nepal but the Hindu are dominant group sharing 99.39% of the total population of this area. The population following other religions is very low. To consider ethnicity, Tharu ethnic group has highest population than other ethnic groups. There are 35.69% Tharu, 23.99% Chhetri, 13.71% Bhraman, 4.56% Thakuri, 4.29% Dalit and 13.45% other ethnic groups. The Tharu ethnic groups are indigenous people of this area. There are two types of the Tharu one is Dangaura Tharu, who came from Dang valley of Nepal and other ethnic group of Tharu is Rana, who were comes from the Thar desert of India. The people of Far-Western Terai celebrate a number of festivals. The main festivals of the Tharu community are Maghi, Holi, Aitbari, Charai and Tihar. Dashain, Tihar, Gaura, Holi, Shivaratri, Krishna Janmaastami etc festivals are the Chhetri, the Brahman, the Thakuri and other ethnic groups of this area.

After the malaria elimination and the construction of East-west Highway, the settlement of Far-Western Terai has rapidly increased. The new economic activities and modern facilities in this area attracted people from the hill and mountain areas of the country. Therefore the flow of people (the migration stream) has increased and expansion of settlement in the study area. So, the human settlements are extending in Far-Western Terai, mainly in the surrounding area of highway and in the border area of the southern part of the study area. This area is secured in terms of food production and even there is surplus as well. Food grain has the dominant crops in farming system in this area. The economic activities the most people in this area are agricultural but in the urban areas peoples are involved in the trade and commercial activities.

Urban facilities are essential for any municipal dwelling. The condition of urban facilities seems to be similar for the urban dwellings of the cities of Far-Western terai cities-Dhangadhi, Tikapur and Bhimdattnagar. The education of condition of Bhimdattnagar is better than other in comparison to other facilities like drinking water, road, electricity, health, administration, economy, trade and communication. Out of all educational institutions of urban area in the Far-West Region, 45.3% are in Bhimdattnagar, 37.3% in Dhangadhi and remaining 17.3% reside in Tikapur Municipality. Bhimdattnagar is developing as an educational centre since it possesses technical education institution and a university. In terms of drinking water facility, 76% families are using handpump and only 15% are using watertap in the urban area. Handpump water is contaminated since it contains arsenic. Although water tap is pure and drinkable, there are fewer consumers of it. In the municipal comparison, 66% families are using hand pump in Bhimdattnagar, 74% in Tikapur and 74% families have hand pump water in Dhangadhi. Water tap users are 18.86%, 17.62%, 87.46%. in Bhimdattnagar, Tikapur and Dhangadhi respectively. From the perspective of the road facility, there is 463.4km long road is in Dhandhi, 265.31km in Tikapur and 165.5km long road is in Bhimdatt Municipality. In addition to this black-topped road, it is also longer in Dhangadhi than in the other cities. Although the three Municipalities have airport facilities, only Dhangadhi Municipality Airport is running. Dhangadhi Municipality seems to be better facilitated than other in terms of health, communication, administrative and financial facilities whereas Bhimdattnagar and Tikapur follow the order. On the basis of the existing urban facilities, Dhangadhi is most facilitated, Bhimdatt is the middle condition of facilities and Tikapur is comparatively least facilitated Municipality. The functional weightage and hierarchy of municipalities of the study area, it is shows that Dhangadi Municilality iss heighest weightage and ranked in 1st, whereas Bhimdatt Municipality and Tikapur Municipality are 2nd and 3rd ranked.

Nepal is one of the developing countries of the world. Nepal's level of urbanization is low in terms of urban population and number of urban centres but it is increasing both in terms of number of urban places and size of population living in the urban areas. Urbanization in Nepal is in infancy stage. The rate of urban growth in the country has been faster in the recent years. The number of urban areas and the proportion of urban population are increasing but its level is still low. Different countries define the urban areas in different ways. The criteria of identifying urban places are different by countries. In Nepal from the census 1954/54 the definition criteria of urban area has been frequently changing from time to time. The criteria of population size changed from 1952-54 to 1999. In 1952/54 the criteria of population size were 5000, it become 10000 in 1962 again it become 9000 in 1976, again changed 20000 in 1992. Although, in 1999 the minimum population size of urban areas becomes 10000 for the hill and mountain regions and 20000 for Terai region of Nepal. Urbanization is relatively new phenomena in Nepal. The level of urbanization is low but it is in increasing condition both in terms of number of urban places and urban population. The number of urban places (Municipalities) and urban population is gradually growing from the last 60 years. The number of urban places has grown from 10 in 1952/54 to 130 in 2014 and the urban population has increased from 238275 in 1952/54 to 7199514 in 2014. Also the level of urbanization has increase from 2.9% in 1952/54 to 27.2% in 2014. In sixty year ago, the urban-rural ratio was only 2.89% and it turns out to be around 37.31% in 2014 (CBS 2014). During this period it is seen that AGRUP (Average Growth Rate of Urban Population) > AGRTP (Average Growth Rate of Total Population) > AGRRPC (Average Growth rate of Rural Population). Spatial pattern of urbanization in Nepal is varied due to diversity of the landscape. The number of urban places and urban population in the Terai Region share higher space than the hill and mountain regions. Also, the level of urbanization is varied from development region to region. WDR is first in the rank CDR is 2nd, EDR is 3rd, FWDR is 4th and MWRR is in 5th rank in the level of urbanization in Nepal. Terai Region is the most population concentration area, most urbanized area and highest sharing percentage of FWDR. Urbanization level and number urban places are higher in Terai region than other geographical regions.

The level of urbanization can be analyzed at district level it is notably that out of 9 districts of FWDR Kailali and Kanchanpur which are located in the terai region, the share of urban population is 77.44%. According to the data we can say Far western Terai (Kailali and Kanchanpur districts) is the hub of FWDR's urbanization. The growth rates are comparatively higher in Far-western Terai to growth rate of Nepal. The spatial urbanization is disproportionate in the study area. So that, the urban growth and urbanization is relatively new phenomena and situation of Far-Western Terai. The urbanization level is low but it is rapidly increasing both in terms of urban areas and urban population. It is concluded that urban population is increasing in higher speed than the rural one and thereby then in fast rapid urbanization in the urban area. It is well established fact that population have been migrating to urban foci for job opportunities and also for availing the facilities of urban environment far along. Now it is concluded that the urban population is increasing in higher speed than the rural one and thus the pace of urbanization in the study area prevails very high.

Generally, human settlement is classified in urban settlement and rural settlement. Nowdays, rural settlements are gradually transforming into urban settlements. It is because of the expansion of urban facilities in the rural areas. The demographic, social and economic disparities of rural and urban area found in Far-Western Terai. The population growth rate in urban area is regularly increasing in the last three decades and it is in decreasing order in rural areas. It means that, it was 4.06% in the decade of 1981-1991, 5.67 from 1991-2001 and 11.23% during 2001-2011. In the same durations, the population was decreasing by 4.69%, 3.5% and 1.72% respectively in rural areas. In average an urban family consists of 4.94 members and the rural family has 5.12 members in size.

Urban and rural population differs in terms of sexual ratio. The sexual ratio of urban population is more than the rural one. It is natural to be higher population density from the urban area since it is a centralization place for human. 737 people live in per square Kilometer in the city area and in the rural area there are 214 people living in every square Kilometer according to the census report. Comparing the dependent ratio of the total population, 81 people are dependent in every hundred active aged people in rural area whereas 53 people are dependent on every 100 active aged people in the urban area.

The rural and urban differences also count social and cultural analysis. The sample survey of 600 HHs of the study area it is shows that 97.2 per cent of families follow Hindu religion in both of urban and rural areas. Likewise, there is no social difference between urban and village areas. But there the people of various castes live in the city. The number of Tharu families in rural area is higher than in the urban area of Far-Western Terai. The population of the other castes is almost same in urban and rural areas. The comparison of the family size shows that an urban family is smaller than a rural family. In the rural area, 81.21% families are single family and in the urban area 84.82% families are living as single family. On the other hand, 15.17% families are joint family in urban area & 18.78% are jointly living in the rural area.

On the basis of literacy, 65.43% literacy is in the village and 74.52% is in the city. In the city, literacy is higher than that of the village. The sources of drinking water in hand pump in the study area of village and around 15% family of the city area are found to be using water taps as the sources or drinking water. Differences between the surveyed families of the rural and urban can also be seen in terms of the use of lighting source. In the urban case, 85.9% families use electricity users and 10.5% kerosene users for the lighting. In the rural area 67.87% are electricity users, 18.78% kerosene users and 5.45% families are found to be solar energy users for lighting. The use of LP gas is more in the city and comparatively less in the rural areas.

Generally, the number of economic activities is more in the urban area than in the rural area. From the survey of this study, it is found that the income of 81.2% family is based on agriculture and related economic activities in rural area and 67.35% families are involved in agricultural and related activities in rural area. But the non-agricultural occupations are limited in urban and as will as the rural areas. There is no huge difference between rural and urban area in terms of demographic, socio-cultural and economic aspect but most of rural areas emerged as urban places.

Bhimdatt Municipality is the main municipal area of this region which was established in 1997 A.D. It is the headquarters of Mahakali Zone and Kanchanpur District. Its population is in 9th ranked all the Municipalities of Nepal (CBS, 2011). The distribution of population is greater in the market area and smaller in the distant areas. Density of population is more than 1200 persons per square km in ward no. 4, 5, 6, 7, 18 and 300 persons in ward no. 3, 8, 9, which has the least density. Thus there is more pressure population of the market and less in the distances. The size of population of 1981 i.e. 43834 has reached 104599 in 2011. It means that there is regular increment in population in the urban area.

The land use of urban and morphology is different in this Municipality. The outskirt area has been used as agrarian land. Residential area is extended around the roads. Trading area is extended in the road lines. Since Bhimdatt Municipality is a planned area, its market and residential areas were established in a well-managed way. Now, it is getting extending to the east, west to the north. As a district headquarters there are various administrative offices which are in the eastern and northern place of the market. It has square shaped of land use pattern and its morphology. It has stood as the main educational centre. There are major educational institutions in the south area of this city.

Dhangadi Municipality is the main municipality of this region which was established in 1976. It is the 11th great Municipality in Nepal in term of population size. Population density is higher in the wards of market area of this municipality too. Mainly there is more than 600 person density per square km in ward no. 4, 5, 8, 1 and 2, in ward no. 7, 9 and 14 population density less than 400 persons per square Kilometer. The size of population in 1984 was 27274 which has reached 101970 in 2011. Annual population growth rate is more than 4% in this Municipality.

Land use of Dhangadi Municipality are 50.64% of land occupied by agricultural, 25.02% is occupied with forest, 1.91% trade area, 0.77% administrative area and 0.22% have been utilized for educational purpose. In the outskirts there is agricultural land and in the eastern part there is the jungle. Market area is extended along the both sides of the roads. Land shape consists different administrative offices since it is the administrative centre. There is a zonal hospital which is comparatively well facilitated and situated in the heart of the market.

Tikapur is a new municipal area or the region. It was established in 2053. It is a small Municipality. It falls in 27th position of all 58 Municipalities in term of its population size. The population of 38722 in 2001 has reached 56127 in 2011 and the population growth rate in 5.84%. The overall population density is 545 persons per square Kilometer. But it is more than 900 persons in the area of ward no. 9 and 8. And least density is there in ward no. 2 where less than 300 persons live in per square Kilometer. Here also population pressure is higher in the market area. The area of 5.35% has been used for residential purpose. Ward no. 3 is trade area which occupies 1.73% land of the Municipality. There are a very few administrative offices since it is not an administrative centre. Most of the land is used as agricultural land and forest. The present land use pattern of the city area of municipality has been used for multi-purpose aspect and the built up area grow along the road side of study area.

Urbanization and environment are interrelated. Nepal is a less urbanized country so far, but the urbanization trend has seen increasing in the recent years. Due to the growth in urban population and urbanization some environmental problems are raising every day. Deforestation is seen due to the regular growth of population and urbanization. On the other hand the arable land is changing into human settlement because of the population growth and expansion in the urban area, and different types of pollutions like air pollution, soil pollution, water pollution, noise pollution and use of different resources, human activities all are increasing from this causing the continuous pressure on the environment.

Various types of environmental problems are rising due to lack of appropriate management of urbanization in Nepal. In the most of the urban places of Nepal, the fertile agricultural land is changing into residential area, degradation of forest areas, the challenges of proper management of sewage, environmental pollution and transport problems can appear there.

Out of the 9 districts of Far-Western Development Region of Nepal, there is no problem created by urbanization in Mountain and Hill district s, because there is no rapid urbanization. But, on the other hand there is rapid urbanization in the Terai districts of this development region. Many rural settlements are urban oriented and environmental problems are posed due to increasing human pressure and centered human activities in the earlier municipal areas of Terai.

In Kailali and Kanchanpur Districts of Terai Region, the forest area is getting decreased. Forest areas are changing in to agricultural land, market area and residential area. Basically formation of East-West Highway, eradication of malaria and most fertile land for agriculture are the rout cause of population increase which leads to deforest the land. Also there are increasing conditions of environmental problems like, land fragmentation, forest degradation, air pollution, water pollution and slums. From this also what we can infer in that there is the environmental problem in urban places the study areas.

The study area of Far-western Terai has been developing in terms of physical, economic and socio-cultural dimensions. It will face a number of problems associated with employment, basic infrastructure, environmental and socio-cultural aspects.