

## **CHAPTER - FOUR**

# **Patterns and Trends of Urbanization**

### **4.1 Urban Growth and Urbanization**

Urbanization refers to increasingly large number of people living in small places and basically engaged in non agricultural activities, while depends on development of industrialization, infrastructure within cities, towns and their neighborhoods, thus urbanization is considered as an index of modernization (Singh 1987).

Urbanization has different meanings in different senses. Demographers, economists, statisticians and geographers consider urbanization with specific views and tools in several ways. Demographers usually try to see urbanization according to urban population accretion of population in urban areas as percent of total population. Economists usually try to relate population growth, pattern of defined technology on the process of urbanization. Statistics try to relate production functions growth rates of urban population (Roy 1986). Geographers consider urbanization in relation to distribution of urban spaces and see proportions and growth of urban population at different spatial context (Basyal and Khanal 2001).

In the broader sense urbanization is a vast process of development or increasing activities of people in areas known as urban reflecting the structural changes in physical, socio-economic, demographic and cultural factors of human life. Normally the level of development of a country has a direct relationship with the level of urbanization of the country. Urbanization is a process by which rural population is transformed into an urban population or an increase in the proportion of population. It includes pace of urbanization and growth in the number of urban centres/places (Wikipedia)

### **4.2. Urbanization in Nepal**

Urbanization in Nepal in terms of the rise in the proportion of the total population living in designated urban areas (i.e. Municipalities, nagar, panchayats, nagarपालिकासेत) is taking place due to the migration of people from rural to urban areas in search of employment seeking opportunities and helping to reduce the pressure of population on Land in rural areas (Sharma 1992).

Urbanization in developing countries like Nepal is still in its infancy (Gurung 2001). The rate of urban growth in the country in the country has been faster the recent decades. In 1952/1954, the

population of Nepal was 238275 that increased to 3227878 in 2001. During the same period the urban places (Municipality) increased from 10 in 1952 to 58 in 2001. Now, the number of Municipalities increase from 10 to 58 during last 59 years period, even then the increasing trends of urbanization is clear since 1952/1954. The proportion of urban population went up from 2.89 to 17 percentages during the six decades (CBS 2011). There is number of urban town (Municipalities) has increased.

This increasing pattern shows the future trend of urbanization in Nepal. In addition to this nature of process of urbanization in the country, it is obvious that significant difference exists in urban growth rate, level of urbanization and the number of urban centres among the different periods of the country.

#### **4.2.1. Changing Definition of Urban Area**

Urban area is the region with large built-up area. Different nations define these areas in different ways. A number of indicators are used in indentifying urban areas. The situation of different countries makes generalization more problematic. In the Philppines, urban areas are defined by the national census. Settlements with a population density of at least 500 persons per square meter are defined as urban centres. In addition to this, the indicators considered are: (1) a parallel or right angled street pattern, (2) at least six commercial, manufacturing or similar establishments and (3) at least three of the following: a town hall, church or chapel, a public plaza, park or cemetery, a market place or building and a public building like a school, a hospital or a library. The administrative units with a population of 1000 are also designated as urban centres if their functions are non-agricultural (Tacoli, 1998).

In India, the specific criteria for identifying urban places used by Census have been changed from time to time. The 1981 Census defined urban places as: (1) any places with a Municipality, corporation, or cantonment or notified town area; or (2) any other places which satisfied all the following criteria;

- (a) a minimum population of 5000,
- (b) at least 75 percent of the male working population non agricultural, and
- (c) a population density of at least 400 per square Kilometer. (Ramchandran, 1995)

In Nepal data on urban areas were available from the census 1952/1954 only. From that time definition of urban area has been frequently changing in Nepal. Since then, the definitions of criteria of urban area have been changing that is summarized in given (table 4.1 & 4.2).

**Table: 4.1: Nepal: Changing Definition of Urban Area (1952/54 to 2011)**

Year	Population Size	Other Criteria	Name of urban place
Population Census 1952/54	• More than 5000	• Prominent settlements	
Population Census 1961	• More than 5000	• Urban environment	Sahar
NagerPanchayat Act 1962	• At least 10000	• Local urban administrative unit. • Local government unit.	Nagarpanchayat
Amendment 1976	• At least 9000		Nagarpanchayat
Municipality Act 1992	• At least 9000		Nagerpalika
Municipality Act 1992	• At least 20000	• Basic urban infrastructures. • Minimum one million annual revenue. • Semi-urban environment.	Nagerpalika
Local Self Governance 1999	• In Hills: more than 10000. • In Terai: more than 20000.	Annual revenue • Hills: NRs. 500000 or more. • Terai: NRs. 5 million or more. Minimum urban facilities such as electricity, road, drinking water, communication and other similar facilities.	Categorization of designated urban areas that e.g., *Nagerpalika *Upa-Mahanagarpalika *Mahanagerpalika

*Sources: Population Monograph of Nepal 2003 and Census reports -2011*

**Table: 4.2: Categorization of Designated Urban Areas by Local Self  
Governance 1999**

<b>Criteria</b>	<b>*Nagerpalika</b>	<b>*Upa- Mahanagerpalika</b>	<b>*Mahanagerpalika</b>
Population	In Hills and Mountain: more than 10000. In Terai: more than 20000.	at least 100000	at least 300000
Revenue	NRs.5 million in annual revenue in Terai NRs.500000 in annual revenue in Mountain and Hill	Annual revenue at least NRs. 100 million	Annual revenue at least NRs. 400 million
Urban infrastructures	Minimum urban facilities	urban facilities & urban environments	urban facilities & urban environments
Other requirements		Infrastructures for national & international sports events, city hall, etc.	Infrastructures for international sports events, university, specialized services etc.
	Municipality	Sub-Metropolitan	Metropolitan

*Sources: Population Monograph of Nepal 2003 and Census reports -2011*

From the table we can see population size and volume have been adopted as the main base to define urban area. The criteria of population size changed from 1952/54 to 1999. In 1952/54, the criteria of population size were 5000, in 1962, it became 10000, again it became 9000 in 1976, again changed 20000 in 1992. Although urban areas were categories adopted some criteria in 1999 by Local Self Governance Act. Local Self Governance Act-1999 recognizes minimum requirements for the hill and mountains are lower than that for the Terai (see table 4.2). It is show that the definitional criteria's of urban centres has been changing over in Nepal.

#### **4.2.2. Historical Growth of Urban centres in Nepal**

Nepal is a landlocked small country. It is one of the least urbanized countries in the world. The urban population (population residing in 58 Municipalities) constitutes 17 percentage of the total

population (CBS, 2011). Municipalities are the officially defined urban areas in Nepal. The urban area or centres is not a matter of chance. Their development, with a variety of functions like manufacturing, commerce, administration, cultural and social services and minimum populations should be understood in relation to their regional resources in national context. All the urban area derived their subsistence for surrounding areas. Multivariate activities are involved in the growth of urban centres. Manufacturing, commerce and trade, administrative, political functions, transport and communication, cultural and social services are some of the major activities involved in the process of urban growth.

The process of urban development in Nepal can be analysed into two different periods which are before 1951 A.D. and after 1951 A.D..

### **Before 1951 A.D.**

The origin of first urban centres in Nepal took place in Kathmandu valley. The historical evidences on the existence of towns in the Kathmandu valley are found only in the Lichhavi period (100 BC -1000AD). It has been noted that during the Lichhavi period there were many settlements known as Grama in the Kathmandu valley. The settlement at the present day site of Kathmandu city was known as koligrama (Bajracharya, 1986 AD). As gramas developed into commercial centre they become known as Drangas (CEDA 1989). The settlements in the southern part of the present Kathmandu known as Dakshinkoligrama developed into a prominent commercial centre in the 10<sup>th</sup> century AD. Towards the end of the 10<sup>th</sup> century AD further development and consolidation of Dranga evolved into an urban settlement known as Kantipur (Malla, 1978).

At the same time three major towns with urban characteristics had been developed in Kathmandu valley. Two factors seem to have contributed significantly to the growth of these towns of the valley. First, the fertile valley high agricultural productivity could support a high density of people and some of people here engaged in commerce and production of goods (such as metal work and textile). Second, the strategic location of Kathmandu valley as the trade link between Tibet and India further contributed to the development of these towns. Three major towns were strongly fortified. The elaborated network of walls and gateways defended them and secured their role as politico-economic centres (Shrestha and Malla, 1969).

During the Malla Raj period (1258-1768), Nepal was divided into small principalities. The capitals of these principalities were loosely nucleus settlements amongst scattered pleasant

homesteads. A few among these later developed into larger settlements with urban characteristics. In this time some settlements along the trade route to Tibet also developed into market centres (Pandey, 2010). In the Rana period (nineteenth century), towns grew very slowly in Nepal. However, a number of small trading centres along the trade routes from Kathmandu to Tibet borders were emerged.

#### **After 1951 A.D.**

After the fall of Rana regime, Nepal began to step into new economic activities. After the political change of 1951, the country was divided into five development regions for the balance regional development and decentralized of central power in different regions. In meanwhile this change had resulted significant impact on the growth of towns as well as, the well being of the people. The country opened for outside world, which was closed before 1951. The periodic development plans were introduced, different development activities began, foreign assistance were grown, so the dramatic change in the growth of towns and urban areas in the different part of Nepal. The first scientific census is conducted since 1952/54. Data on urban area in Nepal are available only since that population census. The census 1952/54 used the term shahar to denote an urban area. The 1952/54 census identified only 10 urban areas (shahar) with population of over 5000. Among these, five were in Kathmandu Valley and together they represented 83% of the total population. They were Kathmandu, Bhaktapur, Lalitpur, Thimi and Kirtipur (all are in Kathmandu valley) and rest of all five urban areas in Terai that were, Biratnagar, Birgunj, Jankpur, Malanngwa and Nepalgunj. This census did not provide any formal definition, but it furnished same socio economic characteristics for few urban areas called shara. Kathmandu was the only city with population of over 100000 in that time.

#### **4.2.3. Trends of Urbanization in Nepal**

Urbanization is relatively new phenomenon in Nepal. The level of urbanization is low but it is increasing both in terms of number of urban centres and size of population living in urban areas. The trends in urbanization in Nepal during 1952/54 to 2014 are as follows

**Table 4.3: Population of Nepal by Residence**  
**1952/54 - 2011**

<b>Census Years</b>	<b>Number of Urban Agglomeration/Towns</b>	<b>Total Population</b>	<b>Urban Population</b>	<b>Rural Population</b>
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1952/54	10	8256625	238275	8018350
1961	16	9412996	336222	9076774
1971	16	11555983	461938	11094045
1981	23	15022839	956721	14066118
1991	33	18491097	1695719	16795378
2001	58	23151423	3227879	19923544
2011	58	26494504	4523820	21970684
2014	130	26494504	7199514	19294990

*Sources: Population Monograph of Nepal 2003 & 2014 and Census reports -2011*

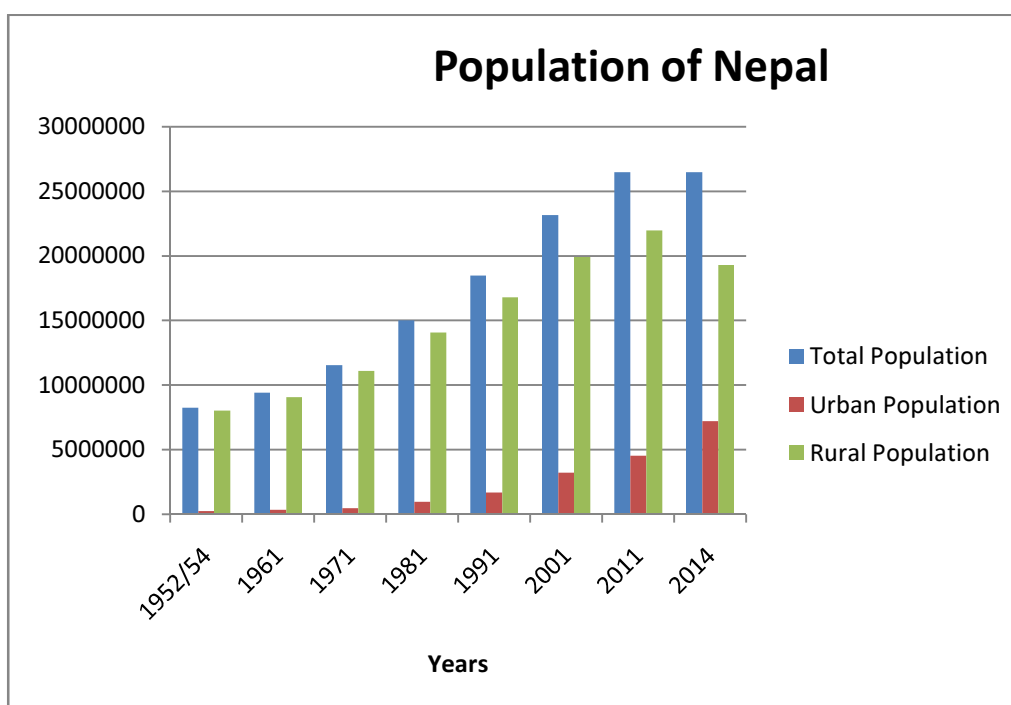


Figure 4.1

Since the census of 1952/54 data on urban area were made available. The 1952/54 census identified only 10 urban centres.

Number of urban centres/town has grown from 10 in 1952 /1954 to 130 in 2014. The number of total population has increased from 8256625 in 1952/52 to 26494504 in 2014 where number of population residing in urban area has increased from 23827 in 1952/054 to 7199514 in 2014 (table 4.3). This process of urbanization in Nepal is shown in fig. 2. The numbers of urban centres and urban population is gradually growing from the last 60 years. The above data reflects a gradual increasing trend of urbanization in Nepal. So that we can say, the process of

urbanization in Nepal is at acceleration stage. This statement can be justified from the following data.

#### 4.2.4. Degrees of Urbanization in Nepal

Degree of urbanization or level of urbanization is the proportion of the population living in urban areas. Geographers consider urbanization is relation to urban places and see proportion and growth of urban population in different spatial contexts (Basyal-2001). It is one of the most important characteristics of urbanization. In the case of Far-Western Terai as well as Nepal, the change in the level of urbanization is quite distinctive.

The degree or level of Urbanization is defined as relative number of people who live in urban areas. Percent urban  $[(U/P)*100]$  and percent rural  $[(R/P)*100]$  and urban-rural ratio  $[(U/R)*100]$  are used to measure degree of urbanization. These are most commonly used for measuring degree of urbanization. The ratio U/P has lower limit 0 and upper limit 1 ie.  $0 < U/P < 1$ . The index is 0 for total population equal to rural population when whole population is urban, this index is one. When 50 percent of the population is rural, it means that there is one Urbanite for each rural person. Theoretically upper limit will be infinite when there is no rural population ( $R = 0$ ) but this is impossible (Datta, 2006)

**Table 4.4, Degree of Urbanization**

<b>Year</b>	<b>Urban Population in % *1</b>	<b>Rural Population in % *2</b>	<b>Urban-rural Ratio in % *3</b>
1952/54	2.9	97.1	2.98
1961	3.6	96.4	3.73
1971	4.0	96.0	4.16
1981	6.4	93.6	6.83
1991	9.2	90.8	10.13
2001	13.9	86.1	16.14
2011	17	83	20.48
2014	27.2	72.2	37.31

*Sources: Population Monograph of Nepal 2003 & 2014 and Census reports -2011*

1\* Percent of Urban Population=  $U/P*100$  where

U=Urban Population, P=Total Population

2\* Percent of Rural Population= $R/P*100$  where

R=Rural Population, P=Total Population

3\* Urban-Rural Ratio=  $U/R*100$

U= Percent of Urban Population

R= Percent of Urban Population



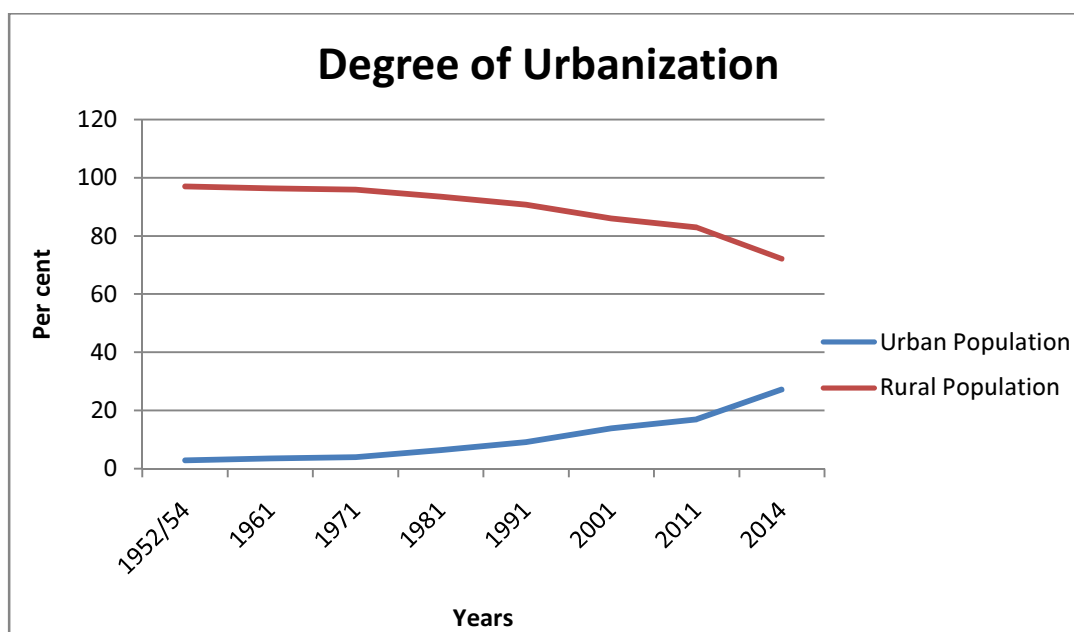


Figure 4.2

Form the table 3, it is clear that percent of urban population has increased from 2.9% in 1952/54 to 27.2% in 2014, whereas percent of rural population has shown gradual decrease from 97.1% in 1952/54 to 72.2% in 2014. Urban rural ratio of the population which is a simple index measuring number of urbanites for each rural person in an aerial unit experiences an increasing trend during the last sixty years in the process of urbanization in Nepal. The urban-rural ratio for Nepal in 2014 turns out to be around 37.31%, meaning that against every 100 ruralites there are 37 urbanities in Nepal in 2014. Sixty year ago, this urban rural ratio was only 2.89%. All these indices point out that Nepal is in the process of urbanization and it is at the acceleration stage of urbanization.

#### 4.2.5. Pace of Urbanization in Nepal

Urbanization in Nepal has been relatively slow compared to many developing countries. The percentage of annual exponential growth rate of urban population is shows in the table below.

**Table 4.5: Annual Growth Rates of Population by Residence (%)**

Year	<i>RGTP</i>	<i>RGUP</i>	<i>RGRP</i>
1952/54-61	1.65	4.53	1.56
1961-71	2.07	3.23	2.03
1971-81	2.66	7.55	2.40
1981-91	2.10	5.89	1.79
1991-01	2.24	6.43	1.70
2001-11	1.348	6.67	0.97

*Sources: Population Monograph of Nepal 2003 & 2014 and Census reports -2011*

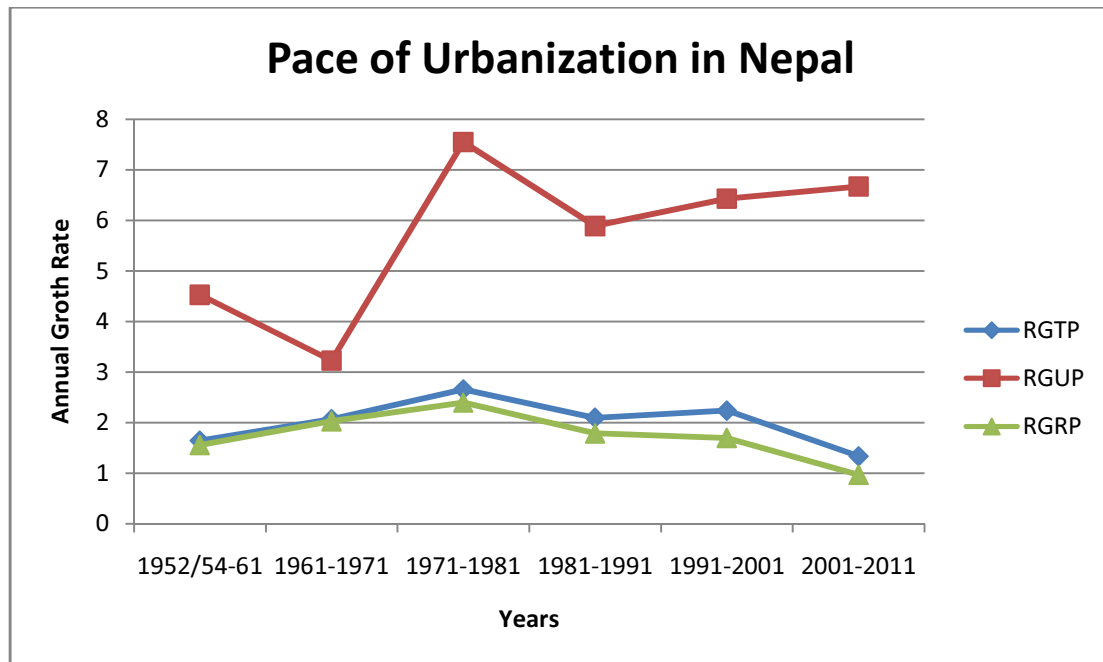


Figure 4.3

Table 4.5 and figure 4.3 presents urban, rural as well as total population growth rates over the years. Nepal is at an acceleration phase of urban population. The average annual growth rate in urban population is much higher than the growth rate of rural population and the growth rate of total population. As compared the average annual growth rates of the total population of the country, the urban population growth rates are more than three times.

The above all population growth rates are fluctuating since 1952/54 to 2014. But the rural population growth rate has been always decline since 1971. During the process of urbanization it is seen that  $RGUP > RGTP > RGRP$  (See table 4.5).

#### 4.2.6. Size Class of Urban Places in Nepal

The growth of number and size of town and population in different size-classes is another aspect of urbanization. The changing level of urbanization can be studied by comparing the number of urban areas of given size and distribution of population among them. The size of the cities having urban place (Municipality) status has been grouped as following categories.

Size class 1<sup>st</sup> (100000 and above population)

Size class 2<sup>nd</sup> (50000 - 99999 population)

Size class 3<sup>rd</sup> (20000 - 49999 population)

Size class 4<sup>th</sup> (Less than 20000 population)

This classification of urban areas in different size classes in Nepal is based on population size. This classification follows the size categories used and suggested in various studies in Nepal and abroad.

**Table 4.6: Number of Urban Centres and Per cent of Urban Population by Size Class**

Census Years	No. of Towns (Urban Centres) by Size Class					Percentage of Urban Population by Size Class				
	I	II	III	IV	Total	I	II	III	IV	Total
1952/54	1	0	2	7	10	44.7	0	31.3	24	100
61	1	0	3	12	16	36	0	34.8	29.2	100
71	1	1	5	9	16	32.6	12.8	32.4	22.2	100
81	1	2	13	7	23	24.6	18.1	47.8	9.5	100
91	3	8	14	8	33	39.3	30.5	17.3	12.9	100
01	5	11	34	8	58	39.4	24.4	32.0	4.2	100
11	10	17	27	4	58	66.03	32.02	22.5	1.92	100

*Sources: Population Monograph of Nepal 2003 and Census reports -2011*

The above table shows number of urban centres and percentage of urban population by size class of urban centres during 1952/54 to 2011.

This is manifested in a high percentage of urban population being concentrated in size class 1<sup>st</sup> urban centre and its population has rapidly gone up over the last decades.

Out of 10 urban centres in 1952/54 there was only one urban area in 1<sup>st</sup> class category a non in the group of 2<sup>nd</sup> class category and only 2 urban centres in 3<sup>rd</sup> category of urban population. In 1961, designated urban areas were increased to 16, the pattern of urban areas were slightly changed in 3<sup>rd</sup> and 4<sup>th</sup> category of size class. Between 1961 and 1971 only 7 of 16 urban centres retained same class, 5 new got inducted. In 1981, 10 of 16 urban centres of 1971 retained status. In the past five census periods, the most remarkable changes in size class of urban centres in the country were recorded during the period of 1980s. During the period two new cities entered in 1<sup>st</sup> size class category and 6 new urban centres in 2<sup>nd</sup> size class category. After 1991 census, 25 new localities were designated as urban, of them 17 urban centres entered into 3<sup>rd</sup> size class category

and 8 urban centres were entered into 4<sup>th</sup> size class category. In this way, in 2001 the number of 3rd size class urban centres reached 13 to 25 towns and 7 to 22 in 4th size class category increased for the period of 1981 -2001.

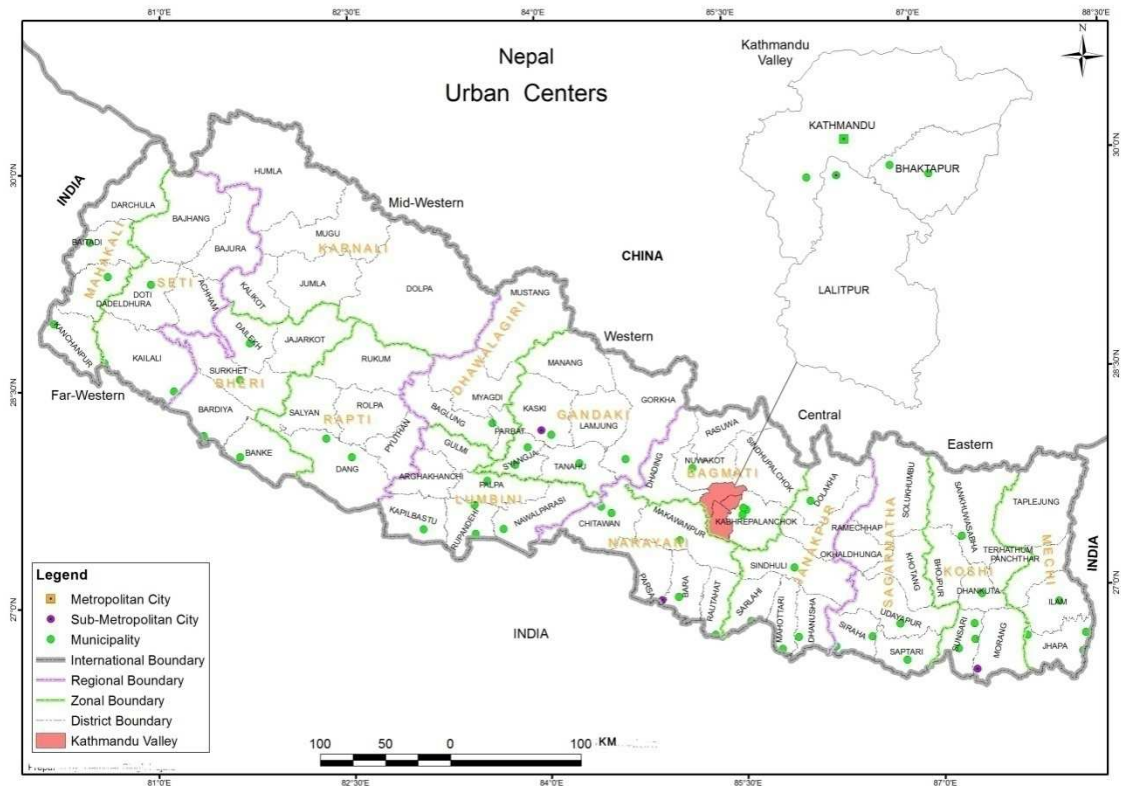
The distribution of designated urban centres by size class urban localities since 1952/54 reveals that, the proportion of the urban population in 2<sup>nd</sup> size class and 1<sup>st</sup> size class category urban centres has increased over the time and the proportion in small towns has decreased (Table 5). As per 1952/54 census percentage of population in category 1<sup>st</sup>, 2<sup>nd</sup> and 3rd were 44.7%, 31.3% and 24% respectively. According to 2001 census, percentage of urban population in 39.4% in the 1<sup>st</sup> size class category, 24.4% in 2<sup>nd</sup> size class category, 32.2% in 3<sup>rd</sup> size class category and 4.2% in size class 4<sup>th</sup> category of urban centres. In 2011 census about two third (66.03%) of the countries urban population lived in 1<sup>st</sup> size class category urban centres and only 1.94% of urban population lived in 4<sup>th</sup> size class category urban centres.

The data above show that the pattern of urbanization in Nepal is high percentage of urban population being concentrated in large urban centres and its population has rapidly gone up over the last decades.

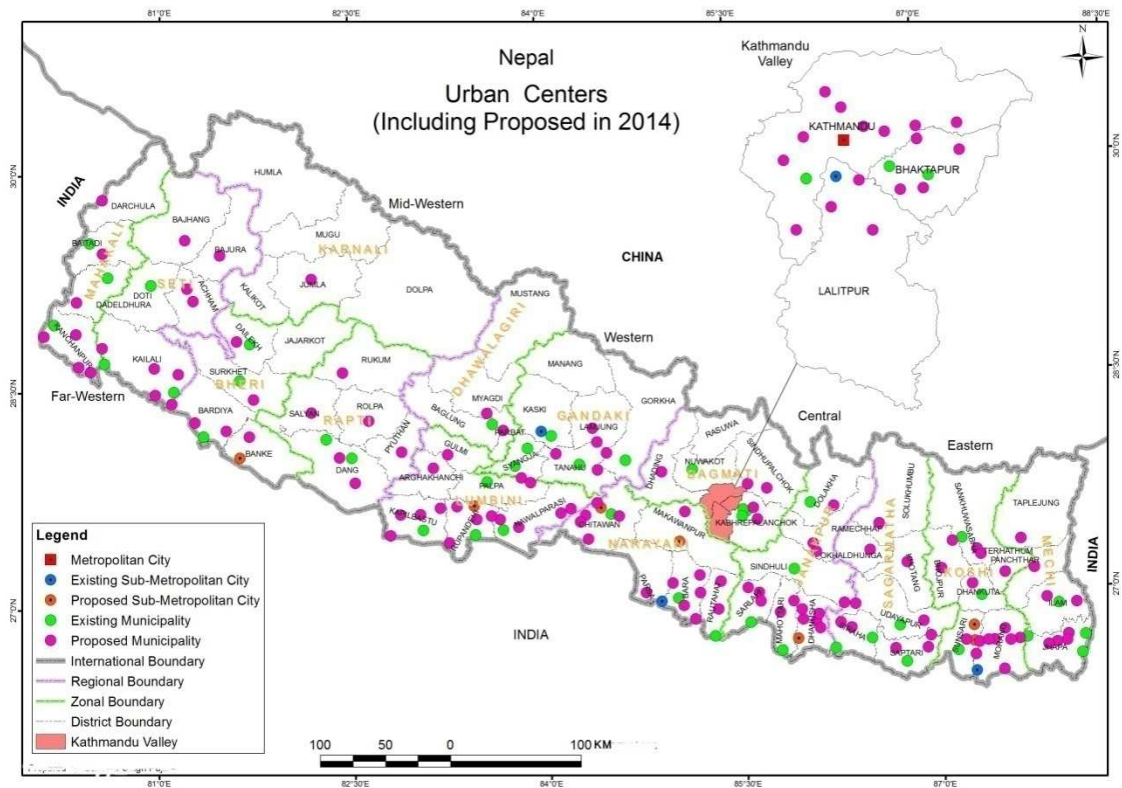
#### **4.2.7. Spatial Pattern of Urbanization in Nepal**

The spatial pattern of urbanization in Nepal can be the analysis in different ways. One can look at the pattern in terms of the three broad ecological regions i.e. the mountains, the hills and the Terai and the other way we can analyse the urbanization administrative region. As Nepal is made up of diverse landscape ranging from plain valleys and tars and hills and mountains. The pattern of population concentration varies by type of landscape. Human settlement pattern in Nepal to data are largely governed by the availability of fertile land, which is normally available in the plains and in the valleys; the lowlands or plains are densely settled than the hills and mountains. (Subedi 2014).

Therefore the geographical pattern of urbanization in Nepal by population concentration it is quite natural to have more urban locations in the plains and valley areas than in the hills and mountains.



Map No. 3.1



Map No. 3.2

**Table 4.7: Distribution of Urban Population and Urban Places by Geographical Region in Nepal (1952/54 - 2014)**

Geographical Region	1952/54	1961	1971	1981	1991	2001	2014
	Urban Popn%	Urban Places	Urban Popn%	Urban Places	Urban Popn%	Urban Places	Urban Popn%
Mountains	-	-	-	-	-	1.4	8
Hills	8204	5	69.7	8	65	7	52
Terai	17.6	5	30.3	8	35	9	70
Total	100	10	110	16	100	23	130

*Source: CBS, Population Monograph of Nepal 2003 and 2014*

The data show above that the hill geographical region had a major share of Nepal's urban population through out last five decades from 1952/54 to 2001, but in 2014 the share of urban population by hill has less than Terai. Although, the share of urban population has been declined from 82.4 percent in 1952/54 to 40 percent in 2014 in hill region of Nepal. On the other hand, the number of urban areas and share of urban population of Terai has been steadily growing from 5 (17.6%) in 1952/54 to 70 (53.9%) in 2014.

According to 2014 data the share in the number of urban places (Municipalities) Terai has the largest proportion of urban population where the fifty three point nine percent of the urban population live in different areas of Terai region. Hill region has 43.8% of the urban population and the share of mountain is 2.3% which is minimal.

#### 4.2.8. Urbanization by Development Region

The administrative division of Nepal has been changing time to time according to need of the country. Nepal was divided into five development region in 1972.

Not only is the ecological variation the development region wise variation in urbanization also evident. The regional imbalance in urban population distribution is shown following table.

**Table 4.8: Distribution of Urban Population by Development Region, 2014**

Development Region	Urban Population	%	Urban Areas
EDR	1568402	21.8	37
CDR	2877201	40	34
WDR	1530536	21.3	32
MWDR	585348	8.1	12
EWDR	638027	8.9	14
Nepal	7188514	100	130

*Source: Population Monograph of Nepal-2014.*

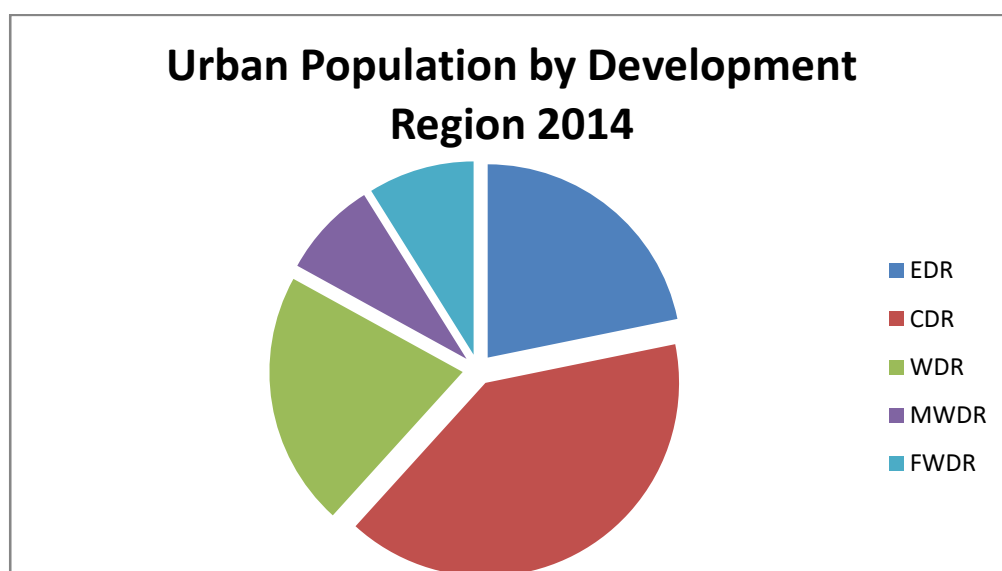


Figure 4.4

By development regions, there is high level of concentration of the urban population in the Central Development Region (CDR). This is because Kathmandu valley (where 5 urban areas,

urban areas one Metropolitan, two Sub-metropolitan and other Municipality) and other large sized urban population areas in Chitwan and Parsa are located in development region. CDR has 40 percent of total urban population followed by 21.8% in EDR, 21.3% in WDR, 8.9% in FWDR and 8.1% in MWDR of Nepal in 2014.

It is obvious that CDR is first in the rank by urban population. The EDR is second, WDR is third, FWDR in fourth and MWDR is 5th rank in urban population. Due to number of urban areas (Municipalities) the spatial distribution of urbanization by development region is somewhat different. The number of urban areas in EDR is highest than other region in 2014. EDR has the highest (37 urban areas) followed by CDR (34 urban areas), WDR (32 urban areas), FWDR (14 urban areas) and MWDR (12 urban areas).

But the level of urbanization by development region differs from the above data. Also the level of urbanization is variation from development region to region.

**Table 4.9: Level of Urbanization by Development Region, 2014**

<b>Development Region</b>	<b>Total Population</b>	<b>Urban Population</b>	<b>*Level of Urbanization (in %)</b>
EDR	5811555	1568402	26.98
CDR	9656985	2877201	29.79
WDR	4926765	1530536	31.06
MWDR	3546682	585348	16.50
FWDR	2552517	638027	24.99
Nepal	26494504	7199514	27.13

*Source: CBS 2011 and Population Monograph of Nepal-2014.*



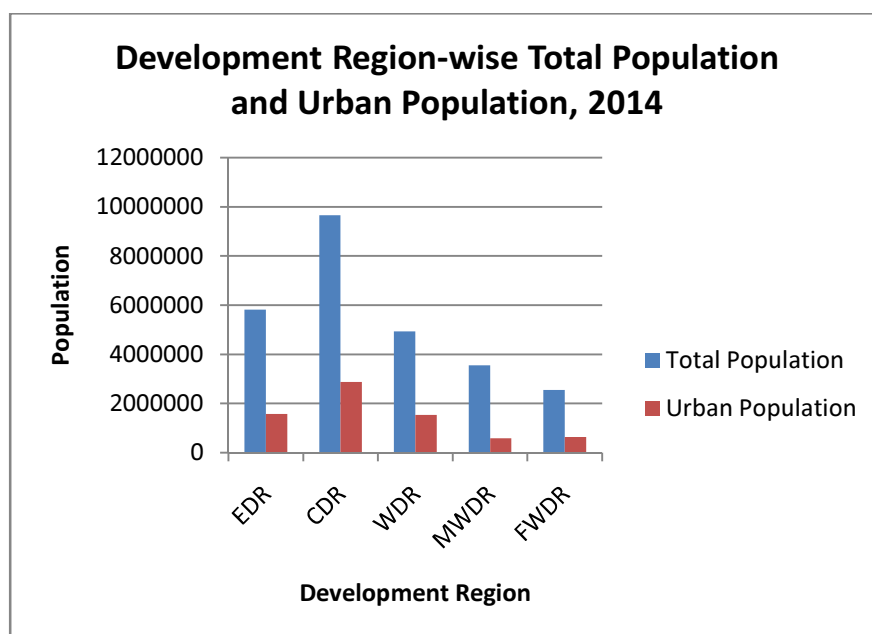


Figure 4.5

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**\*Level of Urbanization=Urban Population/Total Population\*100**

The above data and figure shows that WDR is first in the rank by level of urbanization. The CDR is second, EDR is third, FWDR in forth and MWDR is 5th rank in level of urbanization.

#### 4.2.9. Urbanization Level by Districts:

The process of urbanization depends on different social, economic, historical and political factors in different regions. So the level of urbanization differs from region to region and district to district. This is universal. It has been already noted that Nepal displays one of the lowest urbanization level compared to other countries. The following table shows, districts wise urbanization level of Nepal.

**Table 4.10: Urbanization Level by District of Nepal, 2014**

Level of Urbanization	Number of Districts	Name of Districts
50% and above	3	Bhaktpur, Kathmndu, Kaski
40-50%	5	Morang, Lalitpur, Chitwan, Rupandehi, Kanchanpur
30-40%	7	Sankhuwapur, Udayapur, Thapa, Sunsari, Nawalparasi, Kailali
20-30%	14	Kavrepalanchok, Dhanusha, Bara, Parsa, Tanahu, Syangja, Myagdi, Parbat, Palpa,

		Arghakhanchi, Surkhet, Dang, Banke, Bardiya
10-20%	27	Taplejung, Panchther, Illam, Terhathum, Dhankuta, Okhaldhunga, Saptari, Siraha, Dolkha, Sindhuli, Dhading, Sarahi, Rautahat, Gorkha, Lamjung, Baglung, Gulmi, Kapilvastu, Jumla, Pyuthan, Salayan, Dailekh, Bajhang, Darchula, Achham, Doti, Baitadi
1-10%	6	Bhojpur, Khotang, Sindhupalanchok, Nuwakot, Mahotrai, Dadeldhura
0%	13	Bajura, Rolpa, Rukum, Jajarkot, Dolpa, Kalikot, Mugu, Humla, Manang, Mustang, Ramechhap, Rasuwa, Solukhumbu

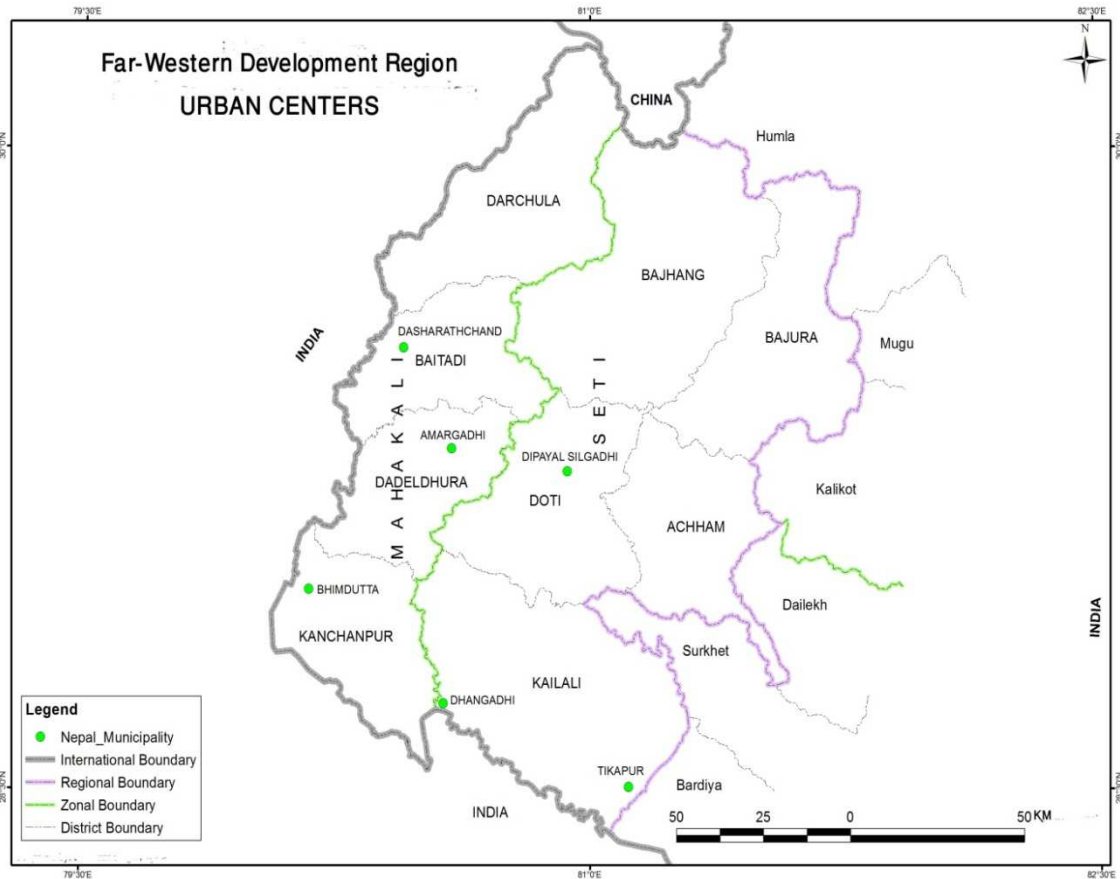
*Source: Population Monograph 2014*

### **4.3. Urbanization in Far-Western Development Region**

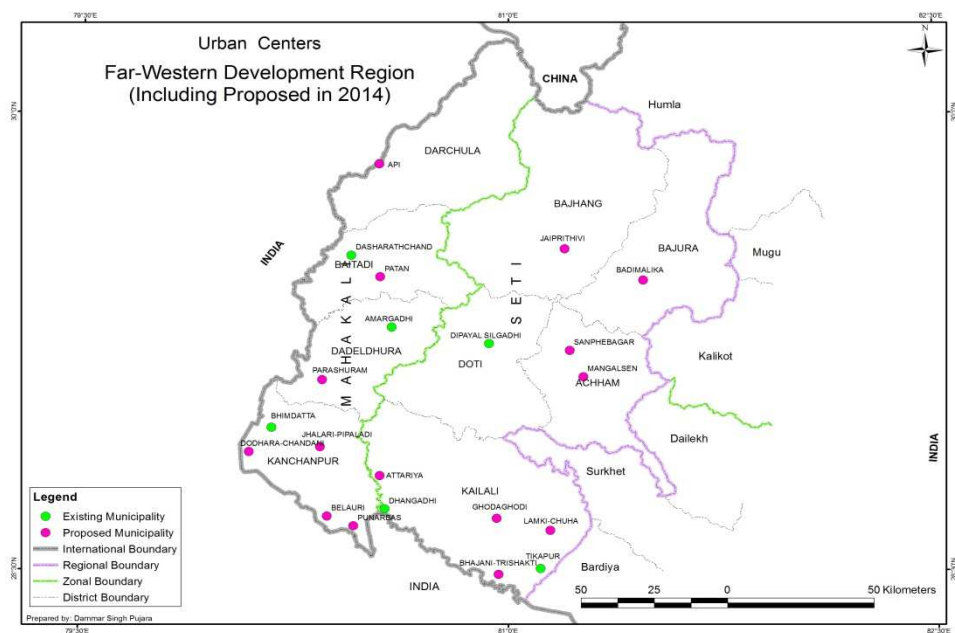
#### **4.3.1. Urban Growth and Urbanization**

Nepal is one of the smallest countries in the world. Administratively it is divided into five development regions. Among them, Far western Development Region is the smallest in area population and development efforts. This region is surrounded by India in the west and south, china in north and Mid western Development Region of Nepal in east. It covers on areas of 19539 sq. km. According to Census of Nepal 2011, the population was 2552517 which was 9.47% of the total population of Nepal.

Information on urban population in Nepal, the data was collected from the census 1952/54. The 1952/54 population census recorded 2.9% urban population from 10 urban areas. The 1981 population census listed 23 urban areas, among them two urban areas is located in Far western Development Region, which are one is Dhangadhi and other is Mahendranagar. So, we can say that since the census of most of those urban areas are located along the east-west highway or at cross boarder area of India.



Map no. 3.3



Map no. 3.4

**Table 4.11, Urban Population of Far-Western Development Region (1981 to 2014)**

Census	Number of urban areas	Total Population	Urban Population	Urban population %
1981	2	1320089	71108	5.38
1991	3	1679301	119163	7.09
2001	6	2183175	243805	11.25
2011	6	2417605	333872	13.08
*2014	14	2417605	638027	26.4

Sources: CBS, 1981, 1991, 2001, 2011, 2014

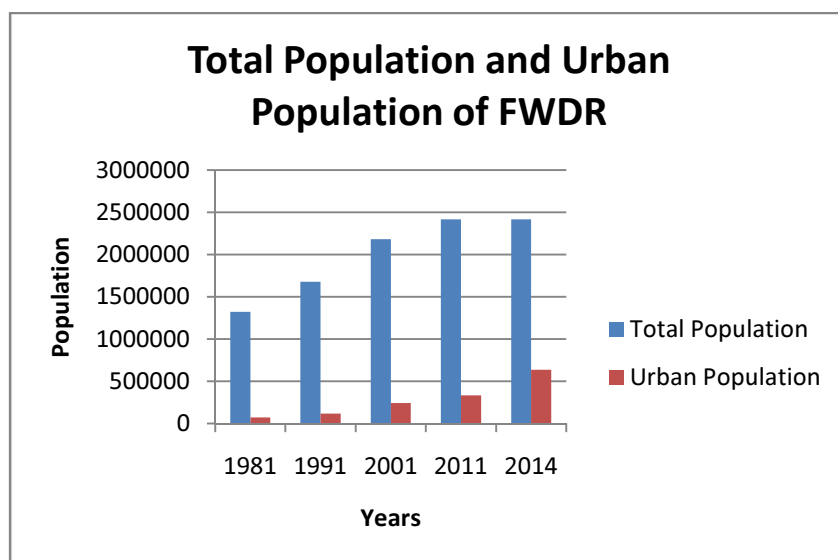


Figure 4.6

(\*Proposed an additional 72 Municipalities on May 8, 2014 by the government of Nepal)

The year 1981 marked the beginning of a continuously increasing trend in total population, urban population and number of urban centres (Municipalities).

The number of urban centres has grown from 2 in 1981 to 14 in 2014. The total population has increased from 1320089 in 1981 to 2417605 in 2014, where the number of population residing in urban area has increased from 71108 in 1981 to 638027 in 2014 (see table no. 4.11). The level of urbanization as a percentage of people living in urban areas has increased rapidly from the 1981 to 2014. From 1981 to 2014, the urban population as a percentage of the total population of the FWDR reached from 5.38% to 26.4%. The data shows that, the urban population and number of urban centres were continuously increased in 1981 to 2014. But after the declared new additional urban areas by government of Nepal in 2014, the number of urban areas and urban population has rapidly increased during only three years.

**Table 4.12: Urban Population Growth in Inter Census Period (1981-2014)**

Year	Urban Population	Internal Increase in Urban Population %	Period
1981	71108	-	-
1991	119163	67.58	10 year
2001	245803	106.27	10 year
2011	333872	35.82	10 year
2014	638027	91.09	3 year

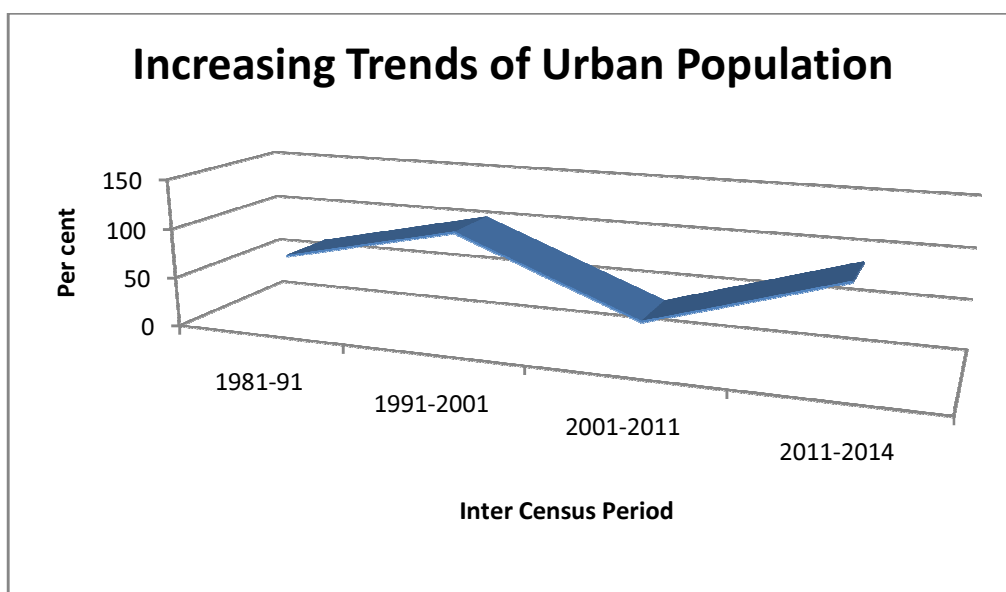


Figure 4.7

In the year 1981, 1991, 2001 and 2014 the urban population was 71108, 119163, 245803, 333872 and 638027 respectively which on the whole showed a increase of urban population 797.26 percent in the last 33 years. The table above show that in increased urban population growth has been the highest in 1991 to 2001 but in 2011 to 2014 within a three year period the urban population increased from 333872 to 638027. In this short period the urban population has rapidly increased or doubled.

#### 4.3.2. Spatial Pattern of Urbanization

The spatial pattern of urbanization and urban growth has uneven pattern. Ecologically FWDR is made up diverse landscapes ranging from plain, hills and mountains, human settlement patterns in Nepal to data are largely governed by the availability of fertile land, which is normally available in the plains and valleys. The lowlands or plains are more densely settled than the hills and mountains. Urbanization on the other hand is largely associated with population

concentration rather than general population distribution (Subedi, 2014). FWDR's current distribution of urban population clearly reflects this.

**Table 4.13: Urban Population Distribution by Ecological Area, 2014**

Area	Total Population	Urban Population	Urban Population %	Share of urban population %
Mountain	328433	41077	12.5	6.4
Hill	862215	102841	11.92	16.11
Terai	1226957	494109	40.27	77.44
FWDR	2417605	638027	26.39	100

*Source: CBS 2011 and Population Monograph of Nepal 2014*

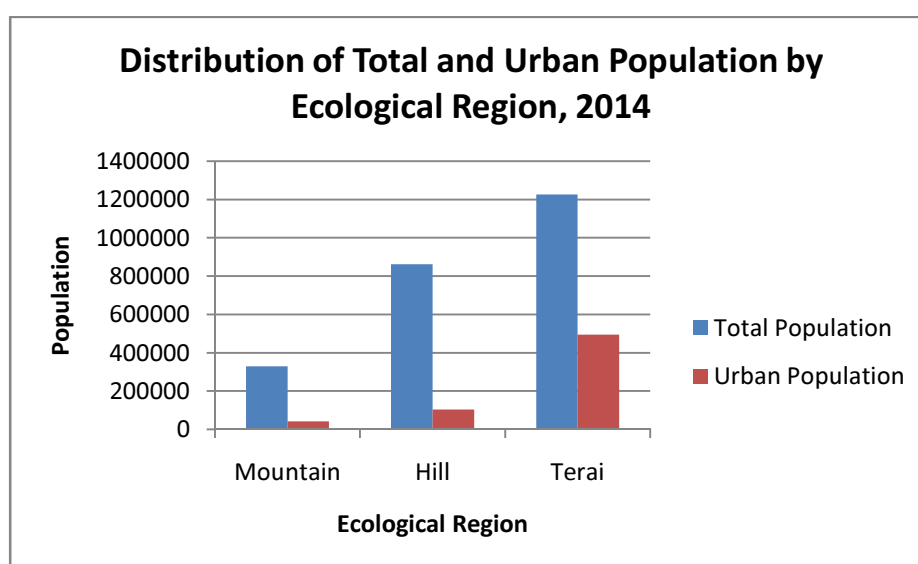


Figure 4.8

Above table & figure shows the total population, urban population, percentage of urban population and share of urban population in different ecological area of FWDR.

Terai region is by far the most population concentration area, most urbanized area and highest sharing percentage of FWDR. The level of urbanization among geographical regions in Terai has higher than other regions.

The population distribution within urban places is an important demography aspect of the process of urbanization. The distribution of urban places (Municipalities) by geographical region at different census are shown below in table.

**Table 4.14, Ecological Distribution Pattern of Urban Areas (Municipalities)**

Ecological Region	Number of Urban Places (Municipalities) in different year				
	1981	1991	2001	2011	2014

Mountain	-	-	-	-	2
Hill	-	1	3	3	5
Terai	2	2	3	3	7
FWDR	2	3	6	6	14

Source: CBS 1981 to 2011 and Population Monograph of Nepal 2014

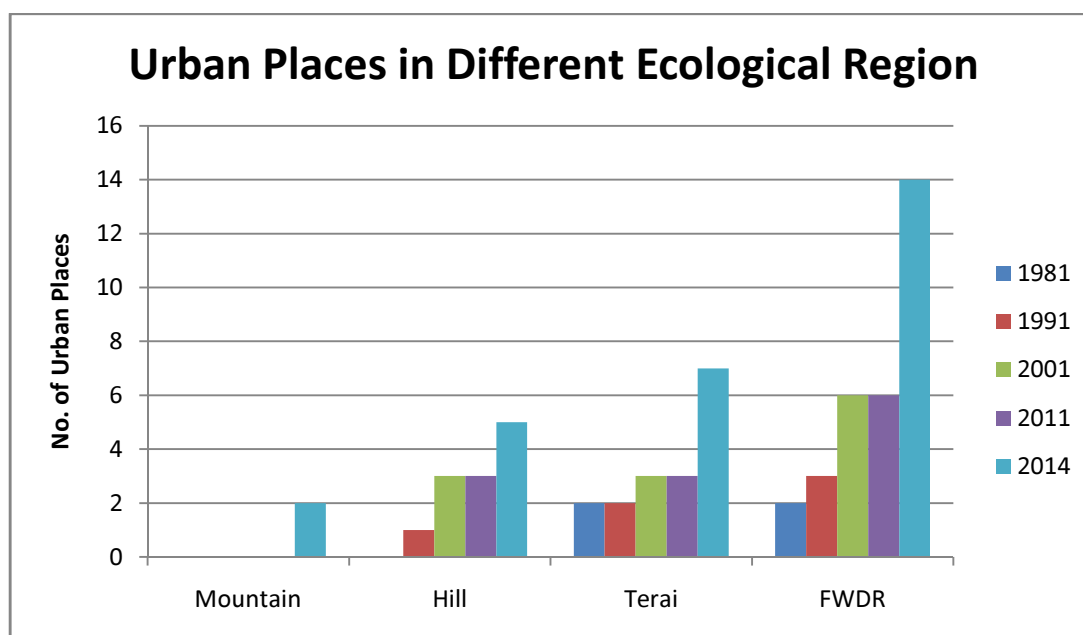


Figure 4.9

Ecologically, there was no urban area (Municipality) in Mountain region before 2014. After the new declared Municipalities on May 8, 2014 by government of Nepal Jay Prithivi (Bajhang) and (Darchula) are only two Municipalities in the mountain region, which share about 6.4% of total urban population of FWDR. The hill region has 5 urban areas in 2014 which share 16.14% of total urban population of the FWDR. Terai region alone has 7 urban areas (out of 14 urban areas) that share 77.44% of total urban population of FWDR.

### 4.3.3. Urbanization by District

The urbanization situation of FWDR is relatively low than other development region of Nepal. As noted earlier 8 out of 9 districts have urban areas (Municipality) in this region. Among them the urban population urban areas are uneven in the different districts.

Table 4.15: District-wise Urbanization, 2014

S.No.	Districts	Number of Urban	Total Population	Urban Population	Per cent of Urban
-------	-----------	-----------------	------------------	------------------	-------------------

		areas			Population
1	Bajura	0	134912	0	0
2	Bajhang	1	195159	20280	10.4
3	Darchula	1	133274	20797	15.6
4	Achham	2	257477	41389	16.1
5	Doti	1	211746	23416	11.1
6	Baitadi	1	250898	16791	15.0
7	Dadeldhura	1	142094	21245	6.7
8	Kailali	4	775709	291970	37.6
9	Kanchanpur	3	451248	202139	44.8
	Total	14	2417605	638027	26.4

Source: CBS, Population Monograph of Nepal 2014

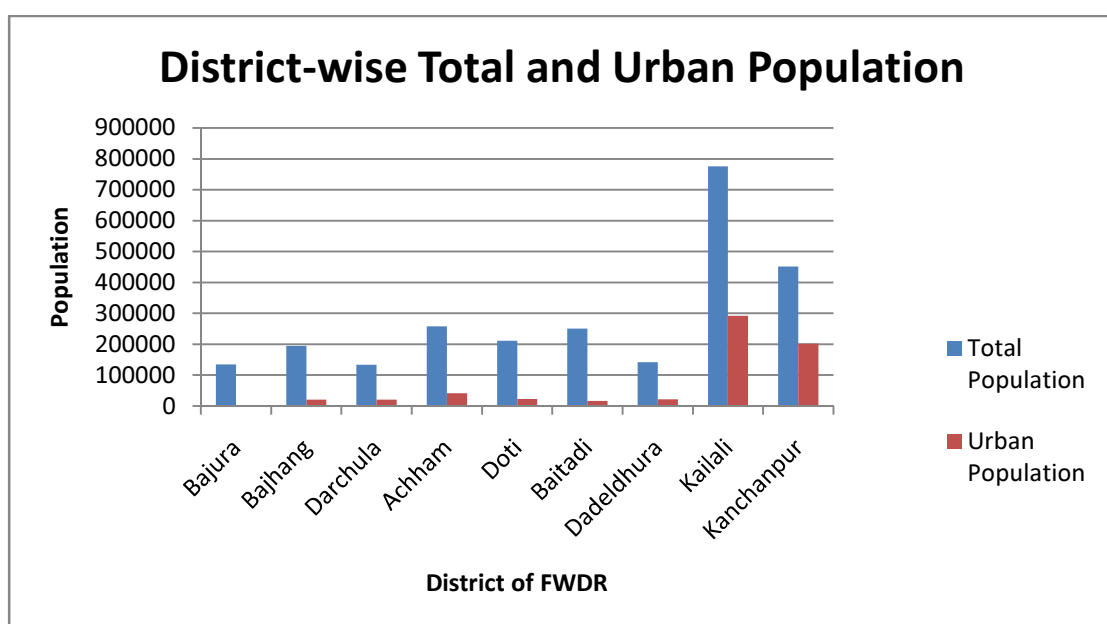


Figure 4.10

Table 4.15 & Figure 4.10 shows that the urbanization situation of districts located in the FWDR of nine districts, Bajura district does not have urban area (Municipality). In FWDR among 8 districts, the urbanization pattern is also very uneven. According to the number of urban areas, Kailali district has four urban areas, Kanchanpur has 3 urban areas, Achham has 2 urban areas and other five districts (Bajhang, Darchula, Doti, Baitadi and Dadeldhura) have one urban area (Municipality) in each district.

Level of urbanization can be analyzed at district level. Out of 8 districts of FWDR Kanchanpur and Kailali districts are more urbanized than other districts with more than 44% and 37% urban population in 2014 respectively. Dadeldhura district has low urban population in this region



which is only 6.7% population living in the urban area. Rest of districts have between 10 to 16 percentage of urban population in 2014.

Due to the size of urban population Kailali district has highest population which is 291970 in 2014. Also Kanchanpur Achham, Doti, Dadeldhura, Darchula, Bajhang and Baitadi have 202139, 41389, 23416, 21245, 20797, 20280 and 16791 respectively with hierarchy.

The share of urban population in FWDR by districts Kailali has the largest share of urban population which is 45.76% and Kanchanpur has 2nd largest share of urban population which is also 37.6%, Baitadi has lowest share of urban population that is 2.6% of FWDR. From the above data 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.

#### **4.3.4. Size Class of Urban Places**

The distribution of urban population by class size and respective growth indicates the scale and nature of urbanization in this region. Table no. 4.16 show the distribution of urban areas and their respective population by size class by four class sizes for 2014.

**Table No.4.16: Size Class Distribution of Urban Area and Population, 2014**

Size Class	Urban Areas	Population		
	Number	Per cent	Size	Percentage
>100000	2	14.28	206569	32.37
50000-99999	4	28.57	243544	38.17
20000-49999	6	42.85	152884	23.96
<20000	2	14.28	35030	5.49
Total	14	100%	638027	100

*Source: CBS, Population Monograph of Nepal - 2014*

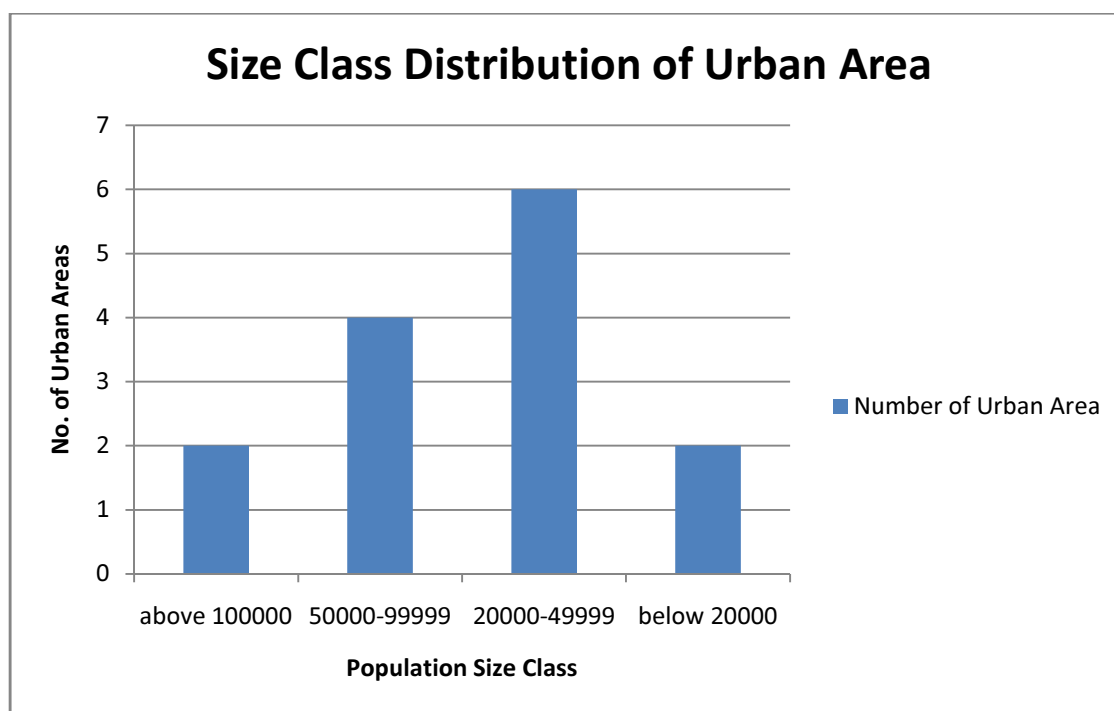


Figure 4.11

By number of urban areas, FWDR's urbanization is dominated by medium size urban areas but population is dominated by size class 50000-99999 population. In numbers, 42.85% of urban areas belong to the size class of 20000-49999 population. Like wise, about 28.57% of urban areas have population size of 50000-99999. The low percentages of urban areas have population size below 20000 and above 100000 which is 14.28% respectively.

Out of a total of 14 urban areas of FWDR, the largest share in urban population is contributed by urban areas with 50000-99999 population which is 38.17%. Urban areas with population size over 100000 accounts for 32.37% of the total urban population. Like wise, the share of urban population with 20000-49999 population is 23.96%. Urban areas with less than 20000 have a low share of the total urban population which is 5.49%.

#### 4.3.5. Ranking of Urban Area

The urban places of Far-Western Development Region of Nepal have been ranked by investigator himself on the basis of their population size. From the population view point the rank of urban areas has changed. In FWDR, change in the rank hierarchy of urban places since 1981 is shown table.

**Table 4.17: Change in Ranking of Urban Area**

Ranking	1981	1991	2001	2011
1	Bhimdatt	Bhimdatt	Bhimdatt	Bhimdatt
2	Dhangadhi	Dhangadhi	Dhangadhi	Dhangadhi
3		Dipayal	Tikapur	Attariya
4			Dipayal	Lamki-Chuha
5			Amargadi	Tikapur
6			Dasharathchand	Belauri
7				Punarbans
8				Dipayal
9				Mangalsen
10				Amargadi
11				Api
12				Jayaprithvi
13				Safebagar
14				Dasharathchand

*Source: CBS, Population Monograph Nepal - 2014*

Bhimdattnagar ranked highest in the ranking of urban places of FWDR in 1981 to 2014. It continues to be in the first place in all censuses, where Dhangadi has always maintained 2nd rank in 1981 to 2014. Dipayal which ranked third in 1991 census but it has gradually slipped in hierarchy in 2001 to 2014. In 2001 census, Tikapur take 3rd largest urban area of FWDR.

Among the 14 urban areas in 2014, 8 are new and 6 are older. The ranking of existing urban areas have also changed. Attariya and Lamki-Chuha are entered into the rank of 3rd and 4th position respectively. Bhimdatt and Dhangadi have remaining the 1st and 2nd ranked in this region. Dipayal, Tikapur, Amargadi and Dasharatchand urban areas have moved down in rank.

It is notably that, out of 14 urban areas of FWDR, top seven urban areas (Municipalities) are located in Terai region. These urban areas are highly population concentration. Most of those urban areas are located along the east-west highway or at cross boarder are Nepal.

#### **4.4 Urbanization in the Far-Western Terai Region**

#### 4.4.1 Trends and Growth of Urban Population

Urban population growth in FWTR, has been faced with rapid growth of population during the last four decades. According to the population census in 1981 16.65% of Far-Western Terai people live in urban areas and 83.35% in Rural areas (table no4.16) During this due to prevalence of malaria, the land resettlement programme - 1980 (This programme on Nepal was initialed with the aim of redistributing population from hill areas with high man-landed ratios to the Terai areas with low man-land ratios) and other social and economic change in Terai population has rapidly growth.

But during the following years population distribution is dramatically change to 40.27% of the total population lived in urban area and 59.73% of the total population lived in rural area in 2014.

**Table 4.18: Trends and Growth of Urban Population and Centres in  
Far-Western Terai**

<b>Year</b>	<b>Total Population</b>	<b>Rural Population</b>	<b>Urban Population</b>	<b>Urban Population in %</b>
1981	427041 (100)	355933 (23.35)	71108	16.65
1991	675797 (100)	543355 (80.41)	132442	19.59
2001	994596 (100)	807588 (81.2)	187008	18.8
2011	1226957 (100)	959261 (78.2)	267696	21.8
2014	1226957 (100)	732838 (59.73)	494109	40.27

*Source: CBS, Population Monograph Nepal - 2014*

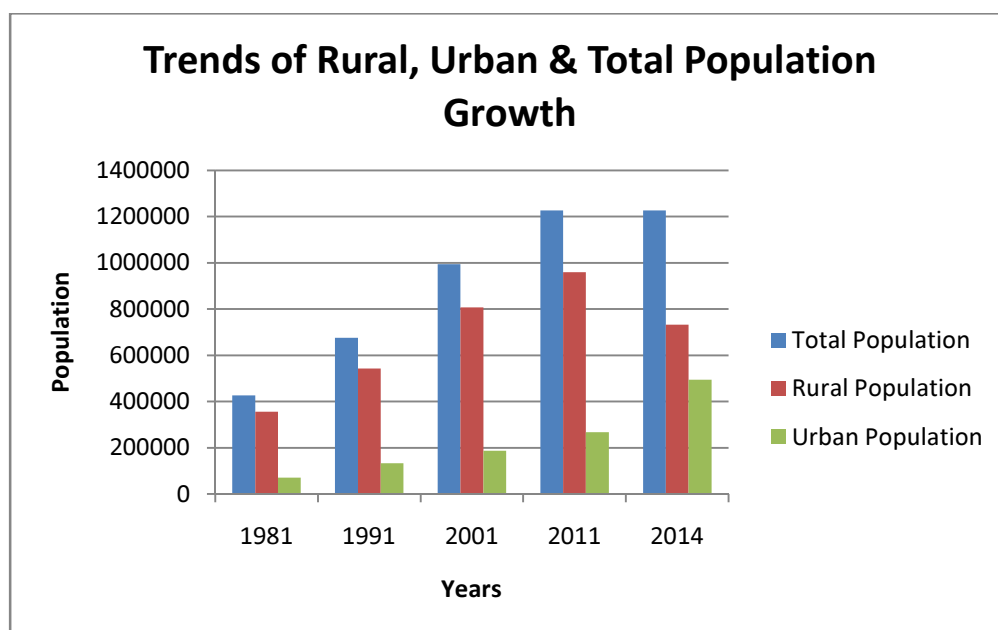


Figure 4.12

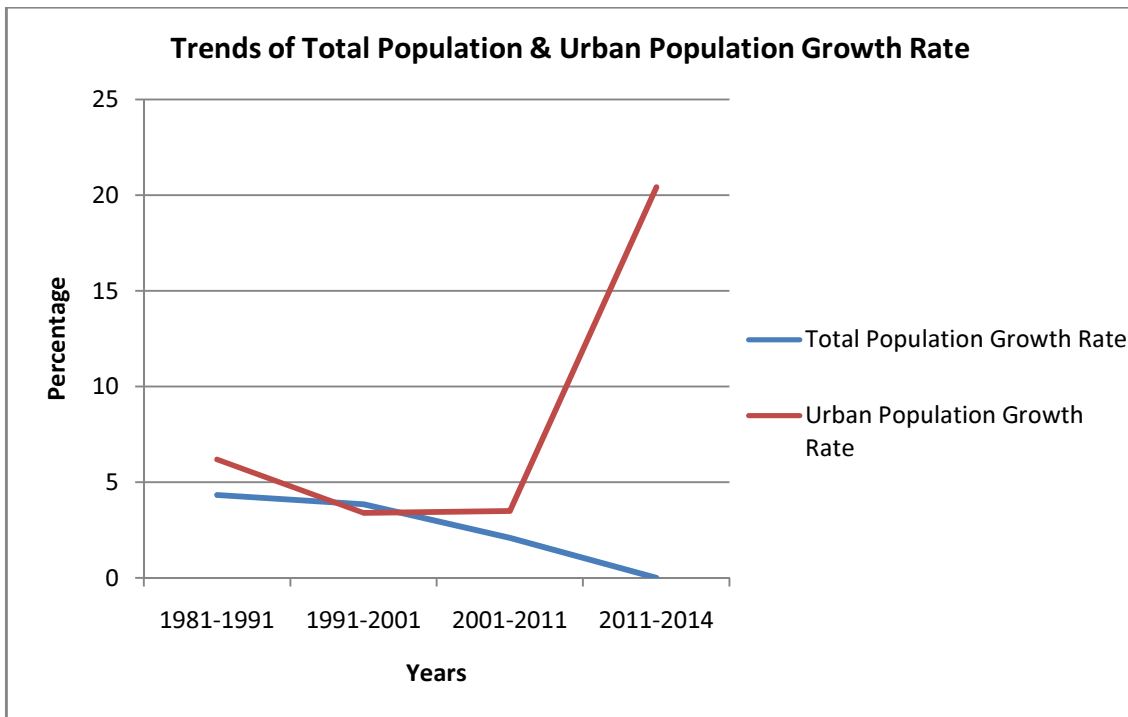
According to table 4.16 the population of this region increased from 675797 in 1991 to 994596 in 2001 and urban population increased from 132442 to 187008 between 1991 to 2001. In this period, number of population in both areas (rural and urban) increased but the increasing ratio of rural is higher than that of the urban, so the share percentage of urban population in total population was decreased from previous census.

After the 2001, the total population of FWT has increased 1226957 in 2011, and urban population has increased 267696 in 2001 and 494109 in 2014. Their share of the urban population increased from 18.8% to 21.8% in 2001 to 2011 and then to 40.127% in 2014.

**Table 4.19: Population Change in Far-Western Terai (1981-2014)**

Census	1981	1991	2001	2011	2014
Total Population	427041	675797	994596	122696	1226957
Increased%	-	58.25	47.17	23.36	-
At growth Rate	-	4.34	3.85	2.099	-
Urban Population	71108	132442	187008	267696	494109
Increased%	-	86.25	41.19	43.14	84.57
At Growth Rate	-	6.22	3.45	3.58	20.43

Source: CBS, Population Monograph Nepal - 2014



Figure

#### 4.13

Urban growth and urbanization has been the most significant demographic and socio-cultural phenomena of present period. All over the world human communities are undergoing the rapid urbanization process.

However, the first census in Nepal was recorded in 1911, and was continued roughly every 10 years but the data on urbanization were recorded since the 1981 census of Far-Western region. Therefore it was only after 1981 that the urban growth and urbanization situation emerged in FWDR. The 2011 census reported only 21.8 percent of living in urban area of FWT. But the government of Nepal declared 72 new Municipalities on May 8, 2014 during the undertaking of population census 2011, urbanization in last three years has rise tremendously. The growth of urbanization is significant in every census. Over the last 40 years since 1981 FWT's population has increased by 799916 or 187.3 percent whereas the urban population of this region at same period increased 71108 (in 1981) to 494109 (in 2014) by 594.87 percent (see table 4.17) In other hand, the census of 1981 showed a total of 71108 urban population which increased to 132442 i.e. and increase by 86.25 percent. During the 1991 to 2011 inter censual period shows a decline in the percentile increase of urban population which come down 41.19 percentages in 2011 than in 1991. In the 2011 to 2014 period, the data show that tremendous growth of urban population i.e. increased by 84.57 percentages. Thus over the 34 years the urban population has increased by

423001 (594.87 per centage). It is show that the urban population of Far-Western Terai has growth by 5.9 times on this period.

Table 4.17 shows that the annual population growth rate of this region is lower (except 2001 census) than the urban growth rate. At the inter censual period of 1981 to 1991, when the total population growth rate was passing through the highest population growth rate which was 4.34%, at the same time urban growth rate was 6.22 larger than annual population growth. The annual urban population growth rate was lower than the total population growth rate in during the 1991-2001 inter census period. The annual urban population growth rate from 1981 to 2014 was 6.22%, 3.45%, 3.58% and 20.43% respectively, whereas the corresponding total population growth of FWT was 4.34%, 3.85%, 2.099% and 0% respectively at the same time.

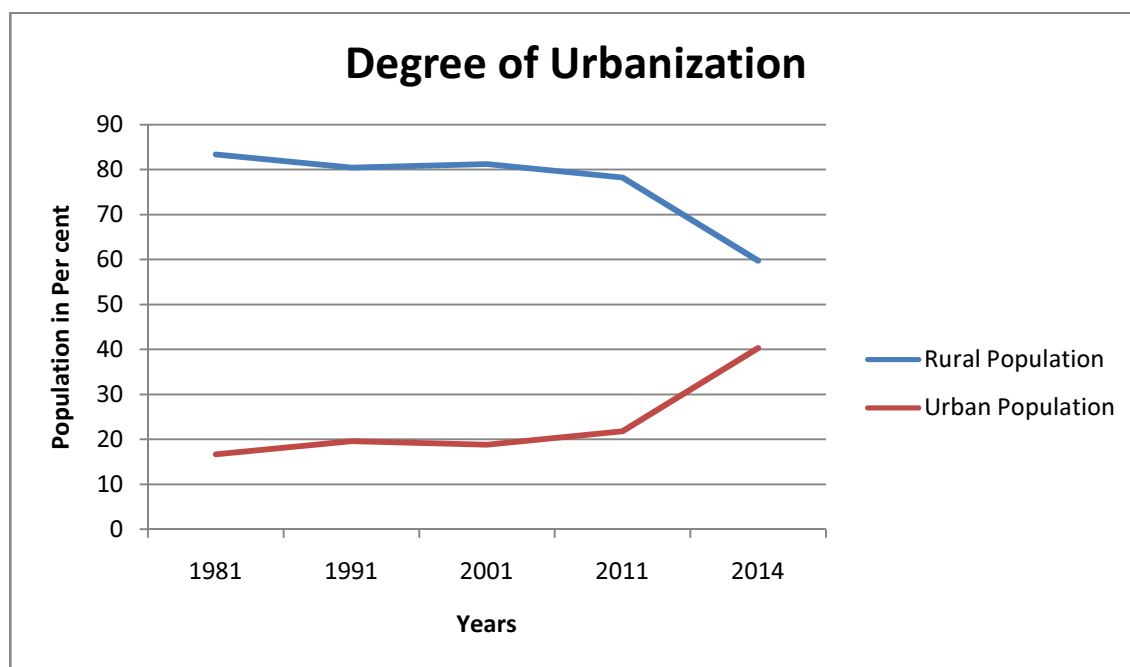
On the basis of above analysis, we can say that Far-Western Terai is at an accelerating phase of urban transition with in the 34 years of period the total population was increased by 187.3% whereas urban population increased by more than 5.94 percent at the same time, which is three times greater. Mean while the average annual growth rate in urban area is larger than total population growth rate expert 2001 census. In 2014 the average annual growth rate of urban population is very high which 20.43% is.

#### **4.4.2. Degree of Urbanization**

The degree or level of urbanization is defined as the relative number of population who live in urban areas. Percent urban  $[(U/P) \times 100]$ , percent rural  $[(R/D) \times 100]$  and urban-rural ratio  $[(U/R) \times 100]$  are used to degree of urbanization. There are most commonly used for measuring degree or level of urbanization. The degree of urbanization and rural-urban ratio is presented in table 4.20 and figure 4.14.

**Table 4.20: Degree of Urbanization& Rural-Urban Ratio (1981 -2014)**

<b>Year</b>	<b>Rural Population in %</b>	<b>Urban Population in %</b>	<b>Rural-Urban Ratio in %</b>
1981	83.35	16.65	19.97
1991	80.41	19.59	11.92
2001	81.2	18.8	23.15
2011	78.2	21.8	27.87
2014	59.73	40.27	67.42



Figure

4.14

It is clear that the percent urban population has increased from 16.65% in 1981 to 40.27 percent in 2014. Whereas percent of rural population has shown a decrease from 83.35% in 1981 to 59.73 in 2014, Rural-urban ratio which a simple index is measuring in the number of urbanites for each rural person in an areas unit shows an increasing trend during 34 years in the process of urbanization in FWT. The rural-urban ratios for FWT in 2014 turns out to be 67.42, showing that against every 100 ruralites there are 67.42 urbanites in FWT. Similarly, findings are noticed by process of urbanization and FWT is at the acceleration stage of urbanization.

Urbanization is an indicator of the level of development of any region. Urbanization in FWT is comparatively higher than as the level of development. In 2014, 27% of total population of Nepal was living in urban places but in FWT it was 67.42 percent. It means compared to urbanization of national level is high the percentage of urban population in FWT is noted in table 4.18.

#### 4.4.3. Comparative Urban Growth in Nepal, FWDR and FWT

Urbanization from demographic view point is the growth in proportion of total population which resides in urban places. Further detail it is the process of development of urban areas and



concentration of population. The process of urbanization involves the increase in number of urban places as well as population of urban areas.

The annual growth rate of urban population of Nepal Far-Western Development Region and Far-Western Terai have been shown in following table.

**Table 4.21: Comparison of Annual Urban Population Growth Rate**

Census	Nepal	FWDR	FWT
1981-1991	5.72	5.15	6.22
1991-2001	6.37	7.24	3.45
2001-2011	3.37	3.06	3.58
2011-2014	15.48	21.58	20.43

*Source: CBS, Population Monograph Nepal – 2011*

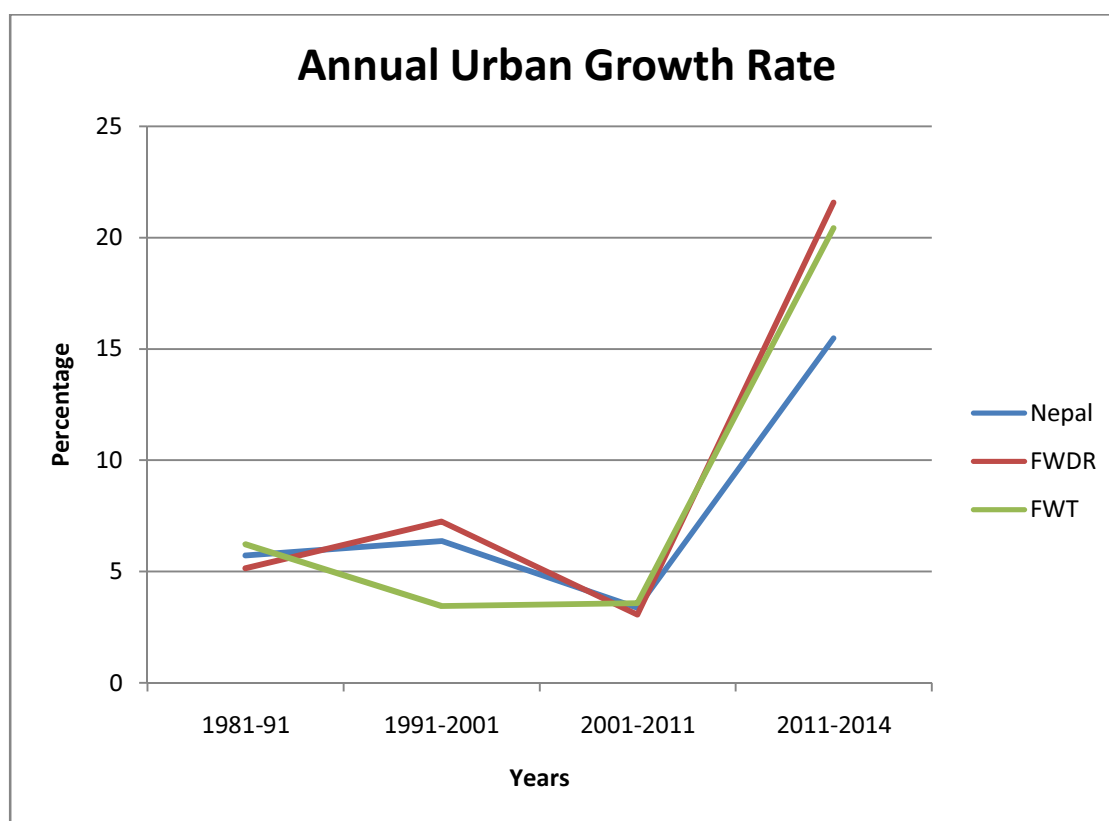


Figure 4.15

According to table above and figure shows that in term of urban population of FWT grew at an annual exponential growth rate of 6.22%, 3.45%, 3.58% and 20.43% in years 1981-1991, 1991-2001, 2001-2011 and 2011-2014 respectively. The data shows that there are ups and downs in change of percentage of urban population in FWT, FWDR and Nepal. But the growth rates are

comparatively higher in comparison Nepal to growth rate of FWT and FWDR. Nowadays, the growth rate of urban population is high in FWT than other region of Nepal.

#### 4.4.4. Urban Growth and Development of Urban Places

The nature and characteristics of urbanization is reflected in size of urban places and has bearing both on the scale and nature of urban problems and planning growth of urban places along with population is shown in following table and figures.

**Table 4.22: Urban Places and Population Growth**

Year	Urban Places	Urban Population
1981	2	71108
1991	3	132442
2001	3	187008
2011	3	267696
2014	7	494109

*Source: CBS, Population Monograph of Nepal - 2014*

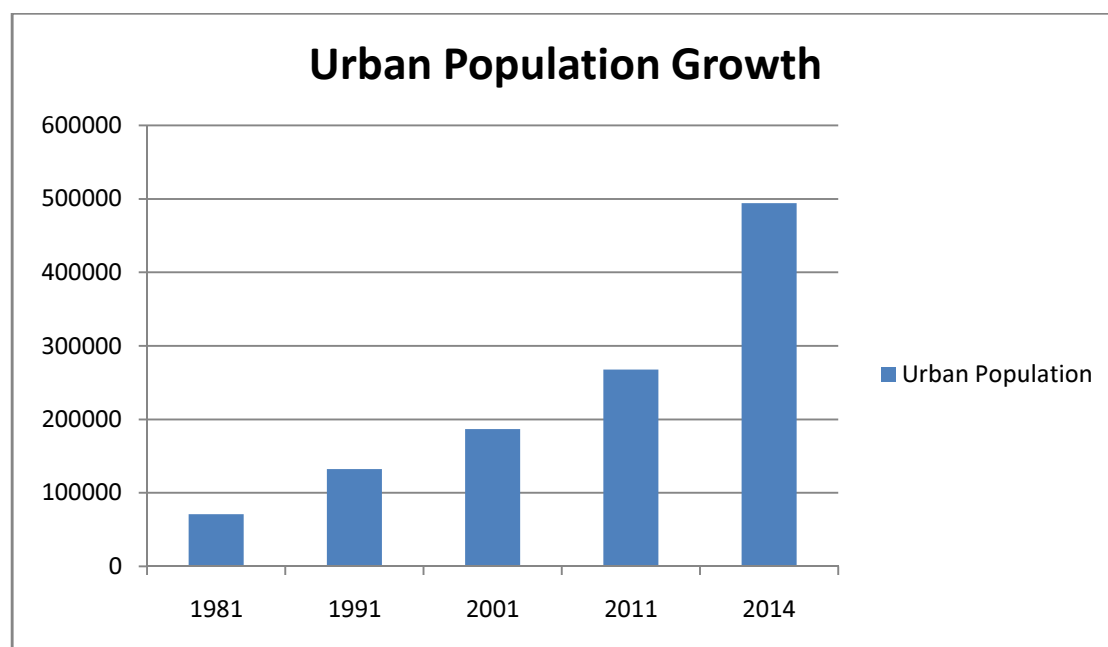
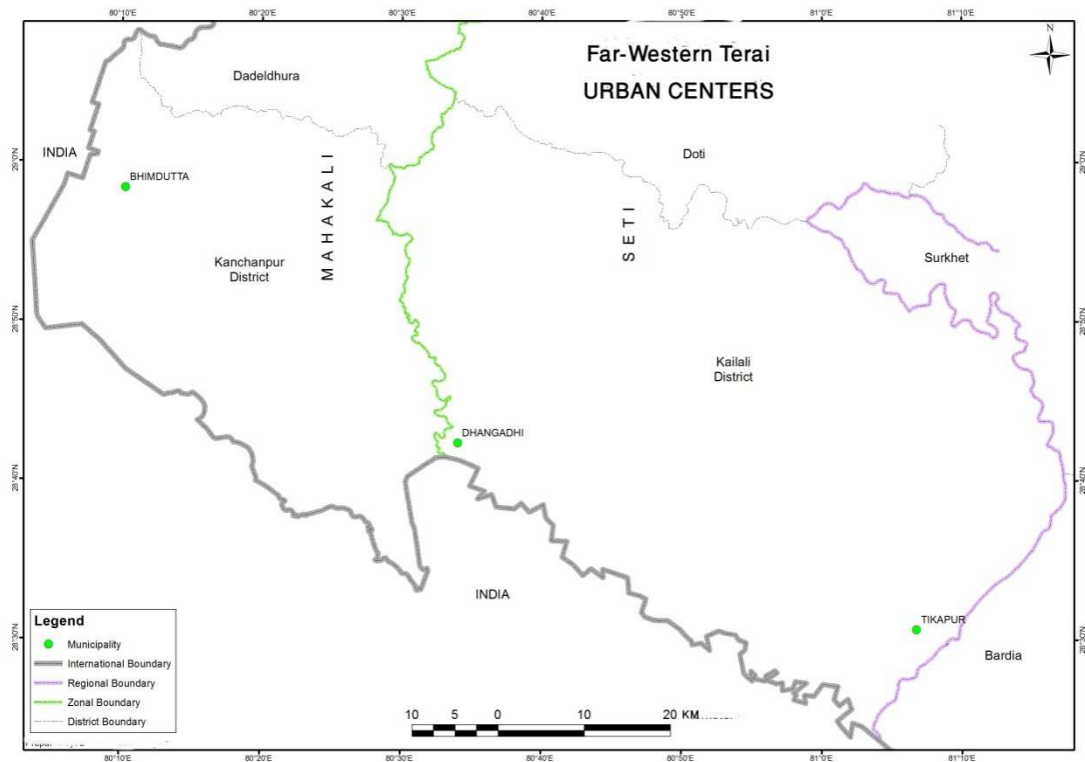


Figure 4.16

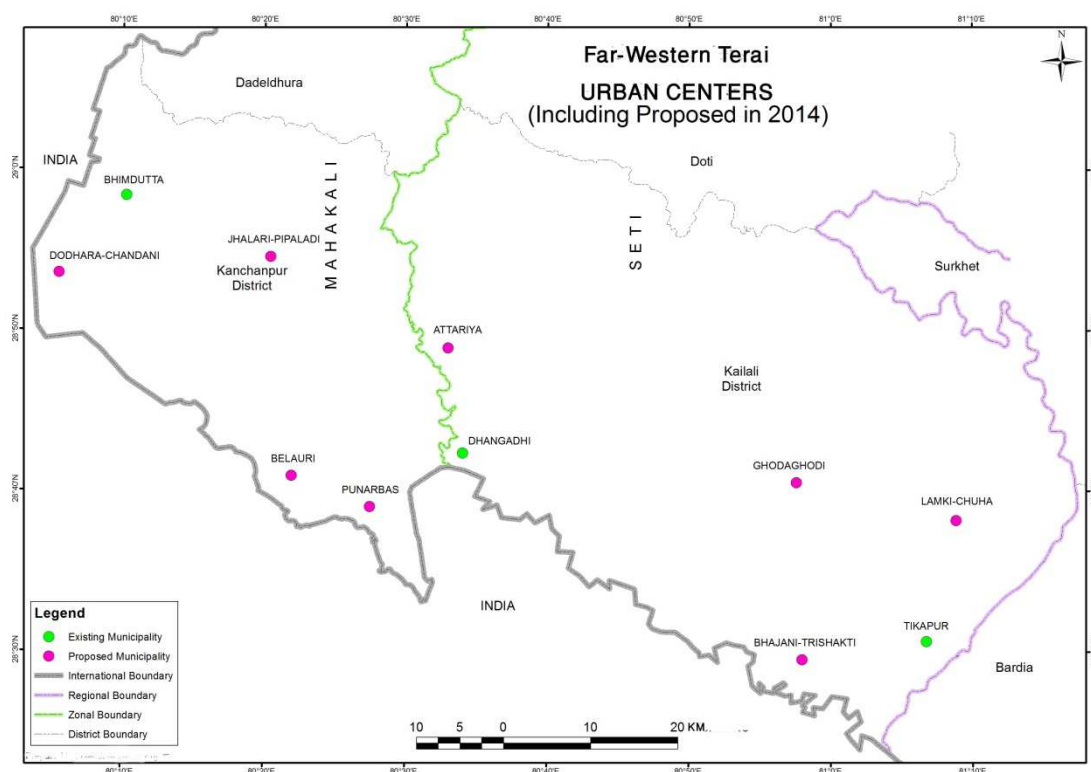
Table & figure shows that 71108 urban population in 1981 resided in 2 Municipalities (urban areas) in FWT. These include Bhimdatt (Mahendranagar) and Dhangadi. Over the last 34 years the number of urban places or Municipalities has increased from 2 in the 1981 to 7 in 2014. The

urban places increase over 34 years in more than 3.5 fold and the population size of urban has increased from 71108 to 494109.

The data clearly shows the rapid increase in both the number of urban places and the urban population from 2011 to 2014 in FWT. Because, in this time, Government of Nepal proposed new four Municipalities in Far-Western Terainamely Lamki-Chuha, Attariya, Punarbas and Belauri, by reorganizing VDCs in 2014.



Map no. 3.5



Map no. 3.6

**Table 4.23: Urban Area and Their Population in Far-Western Terai**

Disctriect	Urban Places	1981	1991	2001	2011	2014	Established
Kailali	Dhangadhi	27274	44753	67447	101970	101970	1976
	Tikapur			38722	56127	56127	1997
	Attariya					72521	2014
	Lamki-Chuha					61352	2014
Kanchanpur	Bhimadattnagar	43834	62050	80839	104599	104599	1977
	Belauri					53544	2014
	Punarbas					43996	2014

*Source: CBS, Population Monograph of Nepal - 2014*

The 1981 census listed 2 urban locations in FWT, which were Bhimadattnagar and Dhangadi. Among them the highest population was recorded in Bhimadattnagar (43834) followed by Dhangadi (27274) in that period. Between 1981 to 2001, there was no change in number of urban area in this region but the populations of those urban areas were increased. In 2001, there is one new urban place was recognized in FWT, which is Tikapur located in Kailali District.

After the 2011, the government of Nepal decided new additional Municipalities/urban areas. Dhangadi is the oldest urban area of Far-Western Terai, gazetted in 1976 Mahendranagar (Bhimdatt) was gazetted in 1977. Tikapur was added in 1997. Until 2011 there were only three Municipalities in Far-Western Terai. In 2014, the largest number of urban areas were decided a new Municipalities. In Nepal similarly in the Far-Western Terai, Attraiya, Kamki-Chuha, Pubarbas and Belaury are gazette in 2014.

#### 4.4.5. Hierarchy of Urban Places

The city with higher population i.e. more than 100000 has special importance as such places have highly impact the way of life and livelihood. The population size of Far-Western Terai cities has been rapidly changing.

**Table 4.24: Size Class and Number of Urban Places in Far-Western Terai**

Population Size class	1981	1991	2001	2011	2014
>100000	-	-	-	2	2
50000-99999	-	1	2	1	4
20000-40000	2	1	1	0	1
<20000	-	-	-	-	-
Total	2	2	3	3	7

*Source: CBS, Population Monograph of Nepal - 2014*

The growth of urban settlement (places) shows a slowly increase from 1981 (2) to 2014 (7), but in 2014 it shows a rapidly increase the number of new urban places.

The big urban areas (city) with population more than 100000 were 2 in 2014 and 2011 and no one urban area in previous censuses in this region. The second category city with population size of 50000-99999 was 4 in 2014. There was only one city in this category in 2001 and two cities in 2001. The number of urban areas with population size 20000-49999 was only one in 2014 and no one urban area in 2001. But in the previous year there were 2 cities in 1981, 1 city in 1991 and 1 city in 2001.

**Table 4.25: Changing Hierarchy of Urban Municipalities**

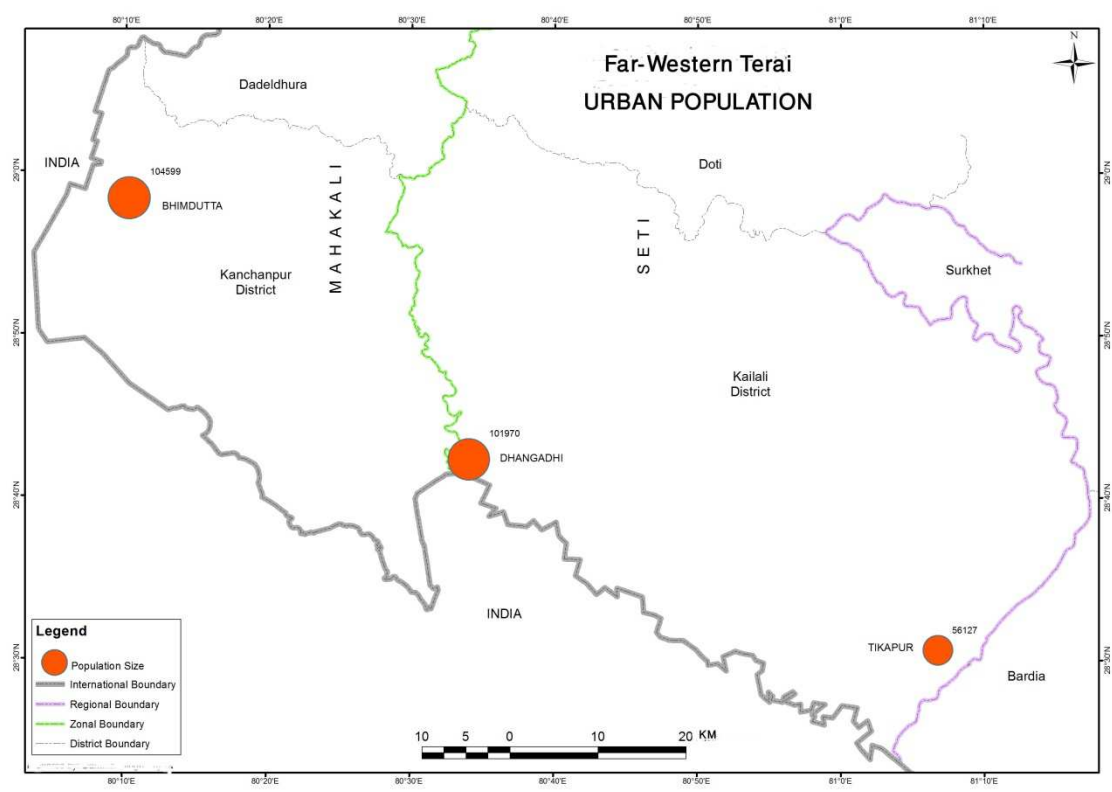
Rank	Urban place and hierarchy by year				
	1981	1991	2001	2011	2014
I	Bhimdatt	Bhimdatt	Bhimdatt	Bhimdatt	Bhimdatt

II	Dhangadi	Dhangadi	Dhangadi	Dhangadi	Dhangadi
III			Tikapur	Tikapur	Attariya
IV					Lamki-Chuha
V					Tikapur
VI					Belaury
VII					Punarbhas

*Source: CBS, Population Monograph of Nepal - 2014*

The top 2 cities hierarchy remained same in 1981 to 2014, which are Bhimdatt and Dhangadi. The above both cities have more than 100000 population in 2014. Tikapur remained the 3rd rank in 2001 and 2011 but in 2014 it has moved down in rank.

According to 2014, among the seven urban places of Far-Western Terai are Bhimdatt, Dhangadi, Attariya, Lamki-Chuha, Tikapur, Belaury and Punarbhas respectively from highest to lowest ranked.



**Table 4.26: Urban Population and Density**

District	Urban Places	Area (sq.km)	Urban Population	Urban Density
Kailali	Dhangadi	105.81	101970	963.70
	Tikapur	68.01	56127	825.27
	Lamki-Chuha	142.55	61352	430.38
	Attariya	158.75	72521	456.82
		475.12	291970	614.51
Kanchanpur	Bhimdatt	171.01	104599	611.65
	Belaury	126.28	53544	424.01
	Punarbhas	94.65	43996	464.82
		391.94	202139	515.73
FWT		867.06	494109	569.86

Source: CBS, Population Monograph of Nepal – 2014

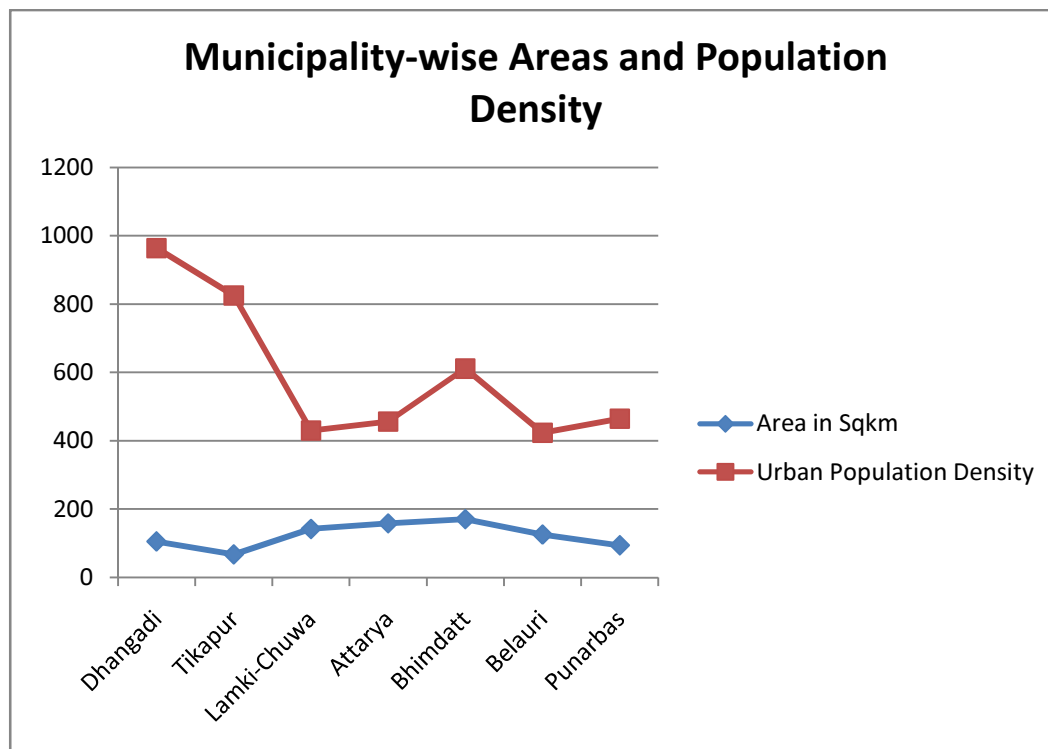


Figure 4.17