

A Study in the Trends and Pattern of Urbanisation of Manipur During Last Five Decades (1951-2011)

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Abstract

According to statistical yearbook of Asia and Pacific 2011 the urban population proportion overlooked the rural population proportion i.e. 49% in 2005 to 51% in 2010 and urban population continue to grow. The present paper is an attempt to analyse the trends and patterns of urbanisation and urban morphology of the state since after the independence of India. Urbanisation is a worldwide process and it begins with a very slow progress in the early stage and then rapidly in a late stage. In all the states of India urbanisation rate is witnessed during the last few decades after independence. The term urban population has defined differently in different countries. With the national average of 31.16% the state has 35.45% of urban population in 2011. Owing to its central location and the junctions of all inter- district connectivity the maximum urbanisation is happened to occur in Imphal. An increased of urban population in Manipur is resulted from fast growing of towns in the valley area. The study is based on the secondary data collected through census and other sources and certain mathematical and economic theories are applied for finding the conclusion. Annual exponential growth and location quotient are used to determine the urban growth and the urban concentration respectively.

Keywords: urbanisation, population growth, urban concentration, slow pace and exponential growth rate.

Introduction:

Urbanisation is the concentration of population in towns and cities. And urban growth and urbanisation has different identical. And urban growth denotes the net population increased to towns and cities while urbanisation refers to proportionate increased of urban population in relation to total population of the place. Urbanisation is a world- wide process. According to the statistical report of Asia and Pacific, urbanisation rate (i.e.51%) overcomes the rural population of the world and urban population continue to rise. As recently a

century ago, the proportion of world people living in cities hardly exceed five percent. The urbanisation rate of India according to 2011 census is 31.16 is still low compared to developed as well as developing countries of many countries of the world.

Manipur lies in the north-eastern part of India and is one the least urbanised state of India. The process of urbanisation was based on the region of Imphal valley. Manipur had urban population of 0.495% in 1951. There is steady increased of urbanisation rate during the last few decades and the state's urbanisation rate suddenly jumps over

35.45 against national average of 31.16. It witnessed over one third of the population lives in urban areas.

The definition of urban area has varied worldwide as there are many countries which adopted different criterion of their own to define an urban area. But as far as census of India is concerned, the criteria that define an urban area as:

- a) Statutory towns. An area with a municipality, corporation, cantonment board or notified town area committee etc. so declared by state law.
- b) Census town. Place which satisfied the following criteria

- 1) A minimum population of 5000
- 2) At least 75% of the population is engaged in non agricultural pursuit.
- 3) A density of at least 400 per sq² km

Objectives of the study

To find out the urbanisation process in Manipur with emphasis on the level of urbanisation and urban morphology using census data during 1951-2011.

To examine the present district level trends and pattern of urbanisation in the state.

To study the concentration of present urban population in the state.

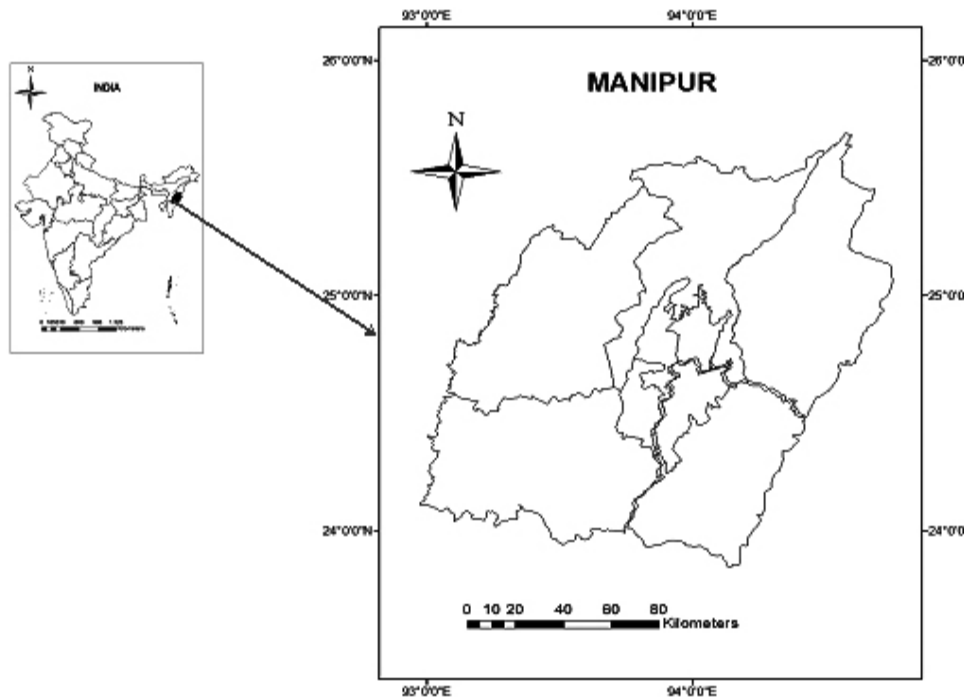


Fig.1 Study area.

Manipur, the present state of India lying in the North East India having an area of 22,327 Km² located at 23° 50' N to 24° 41' N latitude and between 93° 02' E to 94° 47' E longitudes. It has nine districts in which Imphal West, Imphal East, Thoubal and Bishnupur are the plains while Senapati, Tamenglong, Chandel, Ukhrul and Churachandpur are the hilly districts.

Database and Methodology

The present study is entirely based on secondary source of data. The main secondary data source is the census of India and for this purpose various data of census year are used. Data are also extracted from books, thesis and other journals.

For the present study the following methodologies have been used.

To know the growth rate of urban population as well as district level exponential growth rate is calculated with the help of the following formula:

$$P_{(t)} = P_{(o)} e^{rt} \dots\dots\dots(1)$$

- Where P_(t) = urban population at time (t)
- P_(o) = urban population at time o
- r = rate of growth
- t= interval based year and terminal year

Dividing the given formula, by P (o) on both sides the given equation (1) becomes

$$\frac{P_{(t)}}{P_{(o)}} = e^{rt} \text{ taking loge on both side we have}$$

$$\ln(Pt/P(o)) = rt$$

$$r = \ln(Pt/po)/t$$

Location Quotient is used in this paper. It is an economic theory to define the concentration of agriculture, industries, infrastructures etc. of a particular region or area.

To know the concentration of urban population in the state the location quotient has been calculated for the districts. The formula of the location quotient as follows:

$$LQ = (P_{ij}/P_i/P_j/P) \text{ where } p_{ij} = \text{no of person in } j^{th}(1,2,3\dots) \text{ category of area } i (=1,2,3\dots)$$

P_i = total population in all category of area i

P_j = sum of person of category j in all the area i.e. population of the region under category j

P = sum of p_i in all areas i.e. total population of the region in each category

Table 1 Trend of urbanisation in Manipur

Census year	No of town	Urban %	Urban population
1951	1	0.49	2862
1961	1	8.68	67717
1971	8	13.13	141492
1981	32	26.42	375460
1991	31	27.69	505848
2001	33	26.11	575968
2011	51	35.45	834154

Source: census of India (1951-2011) and personal calculation

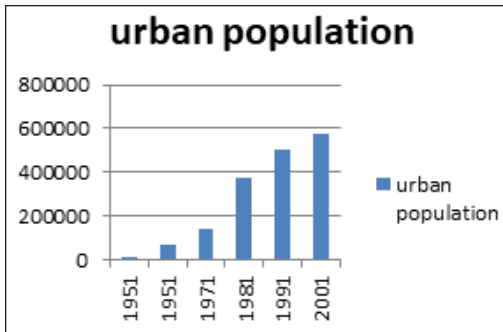


Fig. 2 Graph showing urban population

Trends of urbanisation in Manipur

Table 1.1 reveals that after the independence of India, the urbanisation rate was very slow i.e. 0.41%. The slackness of urban population during the 1951 was because of the drastically reduced to the Imphal- town area due to the effect of very often war and internal conflicts of the state during 1941-1951. The rapid rise of urbanisation in 1961 census was due to resettlement of those who fled to other region during the previous war. In the next decade urbanisation rate has increased with the consequent of addition of 6 new towns to the pre-existing Imphal town. The decade 1961-71 is the most remarkable stage in the state as seven more towns have emerged in 1971. These seven towns were serving as several rural collecting centres in the past which have been developed at a faster rate during this period. The newly enters urban centres are Churachandpur, Kakching, Thoubal, Moirang, Nambol, Bishnupur and Lamlai. The process of urbanisation of Manipur recorded a spurted pace during 1971-81. The urban population increased from 1,41,492 to 3,75,460 in 1981 representing decennial growth rate of 165.36%. The number of towns grew from 8 to 32. An absolute increased of 2,33,968

population was the biggest urban gain in the decade. It is clearly understood that urbanisation rate has gradually increased up to 1981 due to addition of many census town and statutory towns, no wonder this rapid growth of population and urban centres includes many headquarters of districts and block performing as urban centres. The progress of urbanisation accelerated during 1961-81 was also due to further rise of industrializations. And those decades witnessed a further decennial variation while urban population increased to 5,05,645 in 1991. The number of town decreased from 32 to 30 in 1991 compared to 1981. This is due to the de-classification of towns mainly from the hill districts. The urbanisation rate jumped the national average by 3.09 % in 1981 and 1.97% in 1991. For the first time in Manipur in 2001 urbanisation rate decreases compare to previous census year 1991. This is due to de-classification of district headquarters of some of hilly districts of Manipur. The number of towns in Manipur was 33 in 2001. In 2011 the urbanisation rate has increased to 35.45% which is nearly above one third of the population resides in urban area. The increment of urbanisation was mainly due to the grown up of towns. At present the number of towns is 51 (Table 1).

Gaps of urbanisation level between Manipur and India

After the independence of India, during 1951 census the urbanisation rate of the state was very low i.e. -16.80% compared to national average i.e.17.29% as shown on table (2). The gap of urbanisation was very large in 1951. The gulf of gap has been gradually decreased in the subsequent census year 1961 i.e. -9.29 and chased to national average i.e. 17.97% in 1961.

Table 2 shows the gulf of urbanisation between Manipur and India

Census year	Manipur(A)	All India(B)	Gap (A-B)
1951	0.49	17.29	-16.80
1961	8.68	17.97	-9.29
1971	13.13	18.24	-5.13
1981	26.42	23.33	3.09
1991	27.69	25.72	1.97
2001	26.11	27.78	-1.67
2011	35.45	31.16	4.29

Source: Census of India (1951-2011) and personal calculation

The gap is gradually reduced to -5.13 in 1971, increased by 3.09 in 1981 from national average. In 1981 for the first time the urbanisation rate of Manipur exceed the national average by 3.09% but slightly fall from the previous gain in 1991 by 1.97%. The rate of urbanisation jumped below the national average in 2001 by - 1.67%. Again, state's urbanisation rate exceeds by 4.29% over the national rate in 2011.

Table (3) shows the rate of annual exponential of rural population growth which is lower as compared to the urban population growth in 1951-1961 census. The rate of growth of urban population is always greater than rural population up to 1991 and in 2001. However, the rate of rural growth marginally exceeds the urban population growth in 2001 which is mainly due to de-urbanisation of some towns. However in last census year urban population growth rate exceeds than rural population growth rate.

Table 3 showing rural - urban growths

Census year	Urban population (P _u)	Rural population (P _r)	Rural Annual growth rate $r = \ln(P_r/P_{r1})/t$	Urban annual growth rate $r = \ln(P_u/P_{u1})/t$	Urban rural differential $r(u)-r(r)$
-----	2862	574773	---	---	----
1951-61	67717	712320	0.02	0.32	0.3
1961-71	141492	931261	0.03	0.74	0.71
1971-81	375460	1045494	0.01	0.07	0.06
1981-91	505848	1331301	0.02	0.03	0.01
1991-2001	575968	1717928	0.02	0.01	-0.01
2001-2011	834154	2021640	0.02	0.04	0.02

Source: Computed from census of Manipur

Urban morphology

There were only one class VI town in 1951 census (Table 4). Similarly only one Class II town was recorded in 1961 census which shows that the but there was only urbanisation in the state had emerged very lately. For the first time Class I town was emerged in the census year of 1971 along with the two class VI and four class VI, totalling seven urban centres were registered in the state. In 1981 the number of town rose to 32 due to additions of census and statutory towns. In 1991 the number of towns in the state is further decreased to 30 following

the de-classification of most of the urban centres in the hills. Up to 2011 there was only one class I town in Manipur and no class II towns were observed. There are 51 towns of different sizes and classes in the state in 2011. Of which 36 are statutory and 16 are census towns. Most of the towns have the function of market centre-cum service centres with primary activities and they are rural in character. The towns from V to VI have no prescribed urban characteristic although their population have greater than the minimum prescribed limit and can be termed as outgrowth villages.

Table 4 showing the classification of the towns of Manipur

Census year	Class I	Class II	Class III	Class IV	Class V	classVI
1951	0	0	0	0	0	1
1961	0	1	0	0	0	0
1971	1	0	0	0	4	2
1981	1	0	2	4	9	16
1991	1	0	3	5	17	4
2001	1	0	4	7	16	5
2011	1	0	5	12	26	6

Source: census of India (1951-2011)

Class I = (100000-above) class II = (50000- 99999) class III =20000-49000 class IV= 10000-19999 class V =5000 -10000 and class VI = below 5000

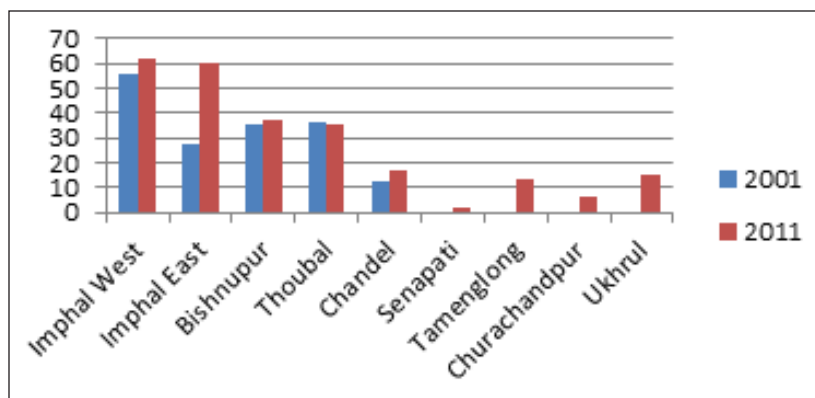


Fig.3 Graph showing urbanisation rate between 2001 and 2011

District-wise study level of urbanisation for the last two decades

Table 5 portrays that in both the census year Imphal West ranks first in the urbanisation rate but its annual exponential growth rate is still low when compared with other districts of Manipur. It is the most urbanised district of Manipur with nearly 62.33% of urban population. The main result of urbanisation in the Imphal West is due to concentration of infrastructural facilities, marketing places, government offices and better job opportunity, etc. It is followed by Imphal East i.e. 59.83% in 2011. In Imphal East, the rate of urbanisation rises more than double in 2011 compared to 2001 census mainly because of most of the towns in the Imphal East district near Imphal agglomeration have emerged. Bishnupur is the third-most urbanised district, has urbanisation rate of 36.86% of urban population in 2011 compared to 35.05% in 2001. However urbanisation rate of Thoubal district is 35.85% during 2011 compared to 36.05 % in 2001. This is due to migration of urban population and high birth rate of rural population compared to urban counter-part. The urbanisation rate of the valley districts is higher than its hill

counterparts because of most of the growth centres and towns emerged in the Imphal valley. Most of the hill districts i.e. Senapati, Tamenglong, Ukhrul and Churachandpur have zero urban population in 2001. This is due to declassification of administrative centres of hilly districts and other towns of hill. Among the hills districts Ukhrul is the most urbanised in 2011 i.e. 14.78% followed by Tamaenglong 13.77%, Chandel 11.68% Churachandpur 6.70% and Senapati 1.56% as administrative headquarters are declared as urban in 2011. During the period 2001-2011 census the exponential growth rate is highest in Ukhrul district nearly 1.12% and lowest in Thoubal district i.e. 0.01% which means urbanisation rate is faster in Ukhrul district and the lowest in Thoubal district. All the hills districts of Manipur except Chandel touch nearly 1% exponential rate at average which has resulted from re-classification of urban centres which were extinct in previous census year i.e. 2001. Higher urbanisation is still seen in the valley area compared to hilly regions due to its geographical, economical and social factors leading to variation in the urbanisation rate. Senapati recorded the lowest among the hills district of Manipur.

Table 5(a) shows the Exponential- growth rate of districts during the last decade

Districts	2001 urbanisation rate	rank	Urban population (P ₀)	2011 Urbanisation rate	rank	Urban population (P ₁)	Annual exponential growth rate $P_1 = P_0 e^{rt}$
Imphalwest	55.55	1	246683	66.33	1	322879	0.02692
Imphal east	27.43	4	108310	59.83	2	183207	0.05256
Bishnupur	35.87	3	74741	36.86	3	87503	0.01576
Thoubal	36.05	2	131272	35.85	4	151333	0.01422
Chandel	12.67	5	14962	11.68	6	16847	0.01187
Senapati	0	6	1	1.56	9	7476	0.89195
Tamenglon	0	6	1	13.77	7	19363	0.98711
Churachandpur	0	6	1	6.70	8	18357	0.98178
Ukhrul	0	6	1	14.78	5	27187	1.02105

Source: Computed from census of Manipur

Note : Calculation of annual exponential rate fail when the initial year population is 0. To calculate it 0 assumed to be 1.

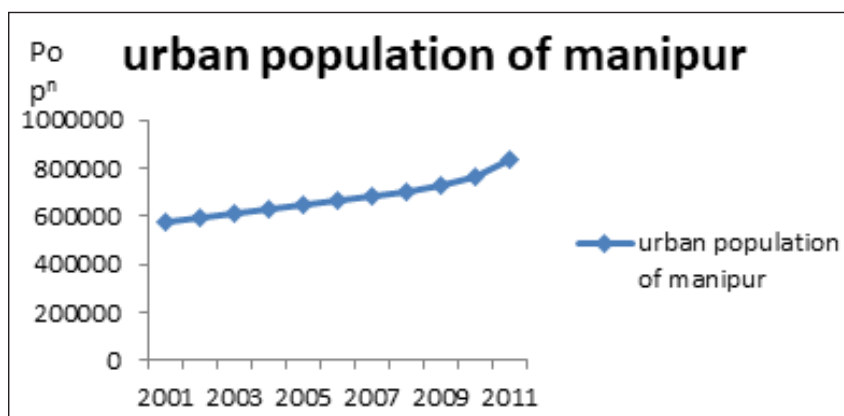


Fig. 4

Table 5(b) Calculated Values of Urban Population in Manipur (2001-11)

Dist.	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
I/W	246683	253413.2	260237.0	267429.5	274725.8	282221.1	289920.9	297830.1	305956.4	314303.9	322871
I/E	108310	114115.2	120315.9	126804.1	133652.7	140865.7	148467.9	156480.4	164925.3	178825.9	183207
BPR	74741	75928.58	77135.0	78360.8	79605.76	80870.64	82155.62	83461.02	84787.16	86134.38	87503
THO	131278	133152.1	135059.2	136983.6	138995.8	140946.0	142964.7	145012.4	147089.3	149196.1	151333
CHN	14962	15140.1	15321.3	15504.2	15689.2	15876.54	16066.01	16257.83	16451.89	16648.27	16847
SEN	1	2.43	5.95	14.52	35.43	81.46	210.96	514.71	1255.84	3064.09	7476

TMG	1	2.68	7.20	19.32	51.85	139.15	373.45	1002.03	2688.92	7215.64	19363	
CCP	1	2.66	7.1	19.01	50.75	135.48	361.64	965.29	2576.56	6877.3	18357	
UKL	1	2.77	7.7	21.39	59.39	164.88	457.73	1770.72	3527.67	9793.21	27187	
TOT		575968	591800	608186	625171	642826	661306	680979	702795	729259	767058	834154

Source: Computed from census of Manipur

Note: I/W=IMPHAL WESST, BPR= BISHNUPUR, I/E = IMPHAL EAST, THO= THOUBAL, CHN= CHANDEL, SEN= SENAPATI, TMG= TAMENGLONG, CCP= CHURACHANDPUR, UKL= UKHRUL, TOT= TOTAL

Table 5(c) Urban Population in percentage

District	Year										
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Imphal West	42.83	42.82	42.80	42.78	42.74	42.68	42.57	42.38	41.95	40.98	38.71
Imphal East	18.80	19.29	19.78	20.28	20.79	21.30	21.80	22.27	22.61	22.66	22.66
Bishnupur	12.98	12.83	12.68	12.53	12.38	12.23	12.06	11.88	11.63	11.23	10.49
Thoubal	22.79	22.50	22.21	21.91	21.62	21.31	20.99	20.63	20.17	19.45	18.14
Chandel	2.60	2.56	2.52	2.48	2.44	2.40	2.36	2.31	2.26	2.17	2.02
Senapati	1.74	4.12	9.79	0.00	0.00	0.01	0.03	0.07	0.17	0.39	0.90
Tamenglong	1.74	4.53	0.00	0.00	0.00	0.02	0.05	0.14	0.36	0.94	2.32
Churachandpur	1.74	4.51	0.00	0.00	0.00	0.02	0.05	0.13	0.35	0.90	2.20
Ukhrul	1.74	4.69	0.00	0.00	0.00	0.02	0.06	0.18	0.48	1.28	3.26

Source: census of India (1951-2011) and personal calculation

Exponential graph

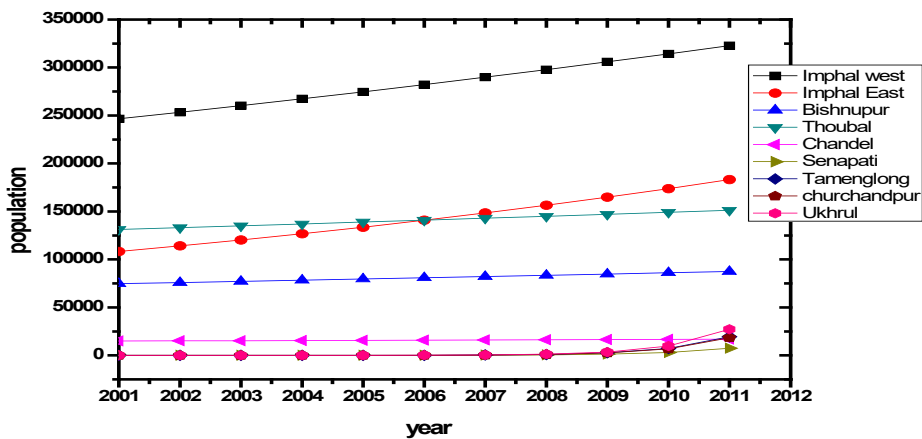


Fig.5

This graph is clearly indicated the urban population of Imphal West is very high compared to other districts of Manipur. During the census year 2001, the level of urbanisation Imphal West stood first followed by Thoubal. But in the year 2006, the urban population of Imphal East is equal to the population of Thoubal and exceeded the urban population in 2007 and so on. The pace of growth of Imphal East was greater than that of the Thoubal. Bishnupur remains unchanged in the rank of urban population, leads to slightly low growth as compared to other plain districts of Manipur. The urban population in the hill districts was very low during 2001. In this census period only Chandel district among

the districts of hills had urban population. But fast growth rate of urban population has been started seen in 2011 except Chandel in the hill districts. The four coincided graph lines run in a single line up-to 2009 and diverged the graphs upward and bifurcate which has been indicated that the urban population has rose in the hill districts with different growth rates. Contrary to 2001, urban population of Ukhrul and Tamenglong exceeds the urban population of Chandel in 2011. Churachandpur and Senapati have low urban population than Chandel in 2011. However the growth rate of the two hill districts i.e. Churachandpur and Senapati are greater than Chandel.

Table 6 Location quotient of each district of Manipur showing concentration of urban population.

Disticts	Urban population (Ui)	Total population of distict (Td)	Total urban (Tu)	Total population (Tt)	$L=U_i/T_d/T_u/T_t$
Imphal West	322879	517992	834154	2855794	2.12
Imphal East	183207	456113			1.40
Bishnupur	87503	237399			1.26
Thoubal	151333	422168			1.23
Chandel	16847	144182			0.41
Senapati	7476	479148			0.05
Tamenglong	19363	140651			0.47
Churachandpur	18357	274143			0.34
Ukhrul	27187	183998			0.51

Source: Computed from census of Manipur.

Table 7 Showing levels of urban population concentration

Level of concentration	Districts
0-0.5	Senapati, Churachandpur
0.5-1	Tamenglong, Chandel and Ukhrul
1-1.5	Bishnupur, Thoubal and Imphal East
Above 1.5	Imphal

Source: Computed from census of Manipur

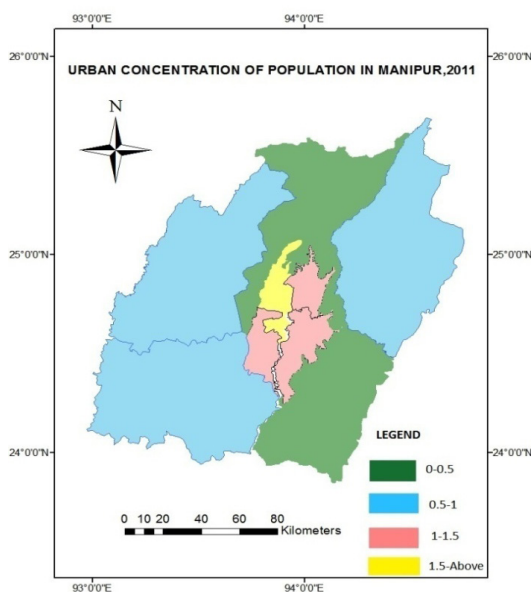


Fig.6

Concentration of urban population

Table 1.7 and choropleth map show that maximum concentration of urban population is seen in Imphal West. Higher urban population is concentrated in the valley districts where L_q is greater than 1 while below 1 is observed in the hilly districts and the lowest is in Senapati district. Low concentration of urban population is visible in hill districts. The urban population is highly concentrated in the primate city i.e. Imphal. The Imphal region is the hub of infrastructural development such as health, education, banking, marketing centres, private firms, other government machineries etc. and it has direct linkage to all the district headquarters. Due to its geographical position, it acts as centripetal to the migrants mainly from other districts of Manipur. The hills are sparsely populated

due to physiographic factors. Living occupation is limited in the hilly area. There is also lack of infrastructural development due to its topography. So the people are migrated to Imphal region for better employment opportunities, health care facilities, education etc. which is one of the main factors for high concentration of urban population in Imphal area.

Conclusion

Manipur has witnessed a slow rate of urbanisation after the independence of India. Thereafter in the subsequent decades the urbanisation rates continually increased and exceeded the national level during the census year of 1981. The state falls below national average in 2001 and there is gradually increased in the last decade and urbanisation rate of the state is about 35%. The number of town are spring up compared to early decades as there were almost one town in the state up-to 1961. The urbanisation is seen concentrated in the valley districts and oriented toward the Imphal district because of its position, location of economic facilities and other avenues. On the other hand the hill districts, because of its geographical, social and economic factors and under growth infrastructural facilities they are deprived from urbanisation. However, during the last decade high exponential growth rate is seen in the hill districts as compared to valley districts. The urban centres of valley areas generate better employment for its surrounding hilly districts. It provides facilities like educations, medical and transport and communication accessibility.

Reference

- Aktar Nasim and Sultana Chand, "Trends and Pattern of urbanisation in West Bengal" Pravidani the eco- a peer reviewed index International Journal of Humanities and Social Science.
- Census of India 2001-2011
- Economic survey of Manipur, 2008-09, Directorate of Economic and Statistics, Government of Manipur, p.122
- Phadke Kh. and Mukherjee Dhipati 2003 'Urbanisation and development in Maharashtra 1961-91' Trans. Inst Indian geographers Vol. 25 no 1 and 2
- Sharma V.N., & Tiwari Anil Kumar, (2014) 'Growth and levels of Urbanisation in Eastern UP' Geographical review of India 76 (2), pp 142-152
- Singh Nabakumar Th.,(2010) 'Geography of Manipur' Rajesh Publication Ansari road, Darya Ganj, New Delhi-110002, pp110-120.
- Statistical Year Book of Manipur 2015.
- Sharma D.D., & and Kumar Ashwani, (2008) 'Himachal Pradesh: Trends of urbanization from 1971-2001' National Geographical Journal of India vol. 54 pts 3-4, pp 57-64
- Sukla Pravati, (2011) 'Population spectrum in the Light of Urbanisation in Sagar district, During 1991-2001'.
- Statistical report of Asia and Pacific 2011.

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