



Research Article

Envisioning Urbanization Process, Issues, Extent, Drivers and Implications: A Case of Mountainous Union Territory of J and K

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Abstract | The paper has used census data of 1901-2011 to examine and understand the process of urbanization in J&K UT and has laid its utmost emphasis on the urban morphology and degree of level urbanization. Attempts have also been made to assess the changes in workforce structure and food availability and consumption pattern in the UT over the years. The study also analyses the inter-district scenario of urban growth and its level and extent in to consideration. The annual exponential growth rate of urban population in India has gone down from 0.97 per cent during 1981-91 to 0.77 per cent during 1991-2001 and in Jammu and Kashmir during the same period it has reduced from 1.06 to 0.58. The study shows that city populace within the area has accelerated from 7.42 to 33.00 percentage as towards 10.84 to 38.70 at national level. During last two decades, developed districts based on per capita income such as Srinagar and Jammu have shown low growth in urban population. The study make a sound point that in the UT the up rise in urban population was not observed in old cities like Jammu and Srinagar but the less advanced districts like Kupwara, Kargil and Leh. The study further reveals that as income rises, expenditure on fruits, milk and milk-product, meat, eggs and fish increases and expenditure on cereals, pulses and other primary products decreases. The expenditure on meat, egg, fish and fruits and vegetables as a percentage of total food expenditure has increased. With regard to male cultivators in part of Srinagar has shown a substantial decline from -1.59 during 1981-2001 to -9.01 during 2001-11. But for female cultivators, the growth rate has remained almost same. From the results it can be observed that availability and production of essential food grains (per capita) decreased over the reference period substantially. On the basis of results drawn, this paper puts forward some policy suggestions on how to check the urbanization in the UT.

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Introduction

Process of urbanization is transformative changes that bring an old-fashioned rural economy to

hi-tech and industrially advanced economy (Davis, 1965). The movement of resources from rural to city centres results inside modernization and industrialization (Agarwal, 2018). It is through this rural-ur-

ban linkage that the process of urbanization becomes key for the reconstruction of entire economy (Davis, 1962). Urbanisation is a process whereby a complete shift takes place from agricultural to industrial sector altogether (Manzoor and Iram, 2018). The process in our country is not only because of push factors but it is accrued to migration of people in search of advanced facilities and also due to expansion/increase in population dividend.

Economic development and urbanization are positively associated. For maintaining balanced economic development urbanisation needs to be in balance. The advancement of rural area is somewhat dependent on the advancement of urban structure. The proponents of economic liberalisation and associated structural reforms argue that this new strategy would accelerate rural-urban (RU) migration and boost the pace of urbanisation. India is a country having diverse culture and socio-economic values with more than 80% population residing in rural areas. Therefore, the concept of linking India with the global economy become expected to steer huge inflows of capital from outdoor and increase the indigenous funding, which in turn, could boost up trend of urbanisation because a lot of the funding and consequent boom in employment could be either inside or round the prevailing urban centres. Even when industrial units are located in rural settlements, they have been anticipated to acquire city repute inside a few years (Sankar *et al.*, 2021; Wang and Su, 2019). The recent data from the population census, however, prove both of them wrong.

The issues

Urbanization in India render the urban communities' non-dynamic for example consistent grouping of populace in huge urban communities because of blending of urban hopelessness and provincial destitution. The shortcoming and un-usefulness of casual area is excessively apparent (Kundu and Basu, 1998) and this very truth renders it as pseudo urbanization where individuals show up in urban areas because of urban force and not because of provincial push (Breese, 1969). Neediness drove relocation has instigated low quality urbanization followed by hopelessness, destitution, joblessness, abuse, quick development of ghetto, disparities and debasement in the nature of urban life (Sen and Ghosh, 1993). Reza and Kundu (1978) are of the opinion that urbanisation is absorption of migrated people to only few advanced cities at the cost of their original base. Relocation from provincial

regions (Premie, 1991) towards towns/urban areas expanded populace fixation in these urban communities represent a genuine danger to the infrastructural and other essential consideration administrations. Kundu and Gupta (2000) focussed on the difficulties presented by Globalization, progression and privatization, in India. Under globalization the endurance and presence of poor are impacted unfavorably while advancement grants modest import of merchandise which at last influences contrarily to provincial economy, crafted works, family industry on which rustic poor gets by. Privatization causes conservation of laborers. Every one of these negative condition power neediness incited relocation (Mukherjee, 1993) of provincial poor to urban casual areas (Kundu *et al.*, 2001). This is a lot of genuine even in the mountainous UT of Jammu and Kashmir where urbanization is happening at a quicker rate because of provincial push. This has an excessive number of outcomes versus the advancement of the district. With this foundation in view, the current review attempts to enlighten on the course of urbanization in J&K with accentuation fair and square and level of urbanization and urban morphology utilizing Census information during 1901-2011, resultant ramifications on the food of urbanization. The paper furthermore attempts to evaluate the progressions in group of labourers construction and food and utilization test inside the UT throughout the long term, examinations the aspects polish dispersion of urban populace and their blast charges throughout the long term and inspects between region rendition in the levels and blast of urban people.

Results and Discussion

Growth of urban population

In India the annual growth rate (exponential) of urban population was recorded 0.97% during 1981-91 and it has reduced 0.77% during 1991-2001 and in Jammu and Kashmir during the same period it has reduced from 1.06 to 0.58 (Table 1). However, during 2001-11, it increased to 1.15 per cent in India and 0.98% in J&K. The J&K being mountainous UT has impossible to miss highlights, of powerless modern base and prevailing horticulture and associated area, thusly, there isn't a lot of expansion in urban populace because of industrialization. Notwithstanding, expansion in urban populace has happened only because of (i) normal expansion in urban populace/or creation/upgradation of new towns and (ii) better offices of wellbeing and instruction. The outcomes uncovered that there is sup-

ported expansion in urban populace since many years and has stayed around 2-3 percent and comparable is the situation at public level which display just about a comparative pattern. However, even though, there is an increase in per cent urban population but the annual exponential growth rate of urban population has by and large remained in between 0.92 to 0.98 at UT level and 1.08 to 1.15 at national level. The number of towns in the UT and at national level have respectively increased from 2 to 117 from 1901 to 2011. The projected figures for the UT for 2021 and 2031 have been estimated as 130 and 146 respectively. The urban populace within the UT has accelerated from 7.42 to 33.00 percentage as against 10.84 to 38.70 per cent at country wide level (Figure 1). The shift seems because of higher fitness and training centers, in addition to up gradations of towns to towns etc., have furnished human beings alternatives to shift to close by cities/towns in which such centers are available.

Table 1: Number of Towns, Percentage and Growth Rate of Urban Population in India and Jammu and Kashmir Since 1901.

Census year	Number of Towns	Percent urban to Total population		Annual exponential growth of urban population	
		J&K	India	J&K	India
1901	2	7.42	10.84	-	-
1911	45	11.71	10.29	4.56	-0.52
1921	29	11.04	11.18	-0.59	0.83
1931	31	11.90	11.99	0.75	0.70
1941	32	13.12	13.86	0.98	1.45
1951	25	14.05	17.29	0.68	2.21
1961	43	16.66	17.97	1.70	0.39
1971	45	18.59	19.91	1.10	1.03
1981	58	21.05	23.34	1.24	1.59
1991	67	23.41	25.72	1.06	0.97
2001	75	24.81	27.78	0.58	0.77
2011	117	27.37	31.16	0.98	1.15
2021	130	30.01	34.74	0.92	1.09
2031	146	33.00	38.70	0.93	1.08

Source: Population Census Part II-A, Series-8, 1991, 2001, 2011(Unpublished)

Note: In the absence of Census data for total, Rural & Urban population for the year 1991 growth rates have been assumed to be constant during 1980s and 1990s

Volume, Trend and Degree of Urbanisation in J&K

In J&K the population in 1901 was 2.1 million which has increased in 2011 to 12.5 million as compared to urban areas the population has increased from 0.2

million to 3.4 million during the same period (Table 2). The graphical presentation of urbanization in J&K (Figure 2) demonstrates a gradual increasing trend of urbanization in the UT.

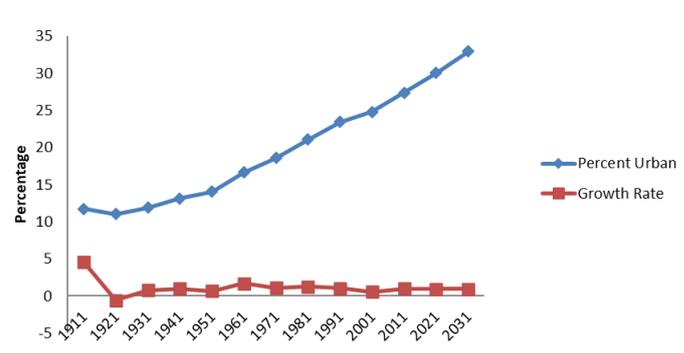


Figure 1: Percentage and growth rate of urban population in Jammu & Kashmir.

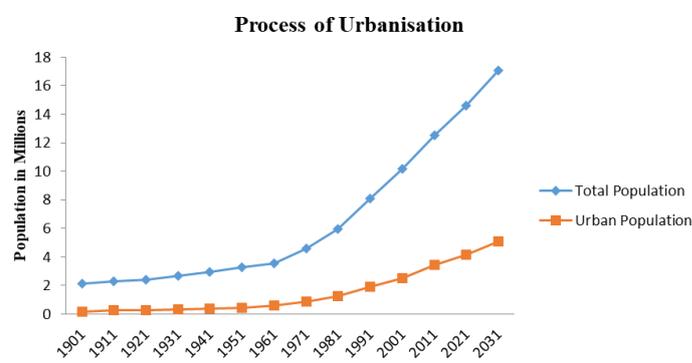


Figure 2: Process of urbanisation

Table 2: Population change in J&K by residence.

Census years	Total population unit	Urban population unit	Rural population unit
1901	2.14	0.16	1.98
1911	2.30	0.27	2.02
1921	2.43	0.27	2.16
1931	2.68	0.32	2.36
1941	2.95	0.39	2.57
1951	3.26	0.46	2.80
1961	3.56	0.60	2.97
1971	4.62	0.86	3.76
1981	5.99	1.27	4.73
1991	8.07	1.89	6.18
2001	10.15	2.52	7.63
2011	12.55	3.44	9.11
2021	14.59	4.18	10.42
2031	17.06	5.10	11.96

Source: Population Census Part II-A, Series-8, 1991, 2001, 2011(Unpublished)

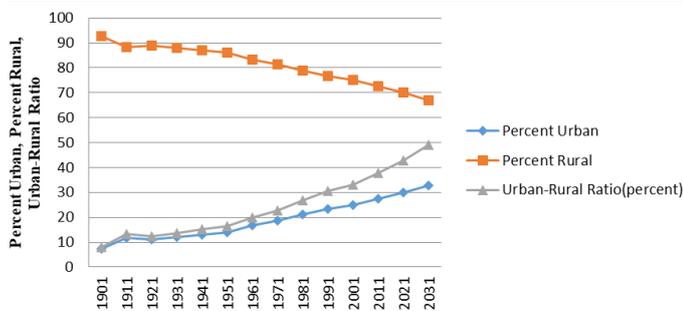


Figure 3: Degree of urbanization in J&K: 1901-2011

Degree of Urbanisation

Degree of urbanization is categorized as relative number of individuals who live in urban regions. Per cent urban $[(U/P) \times 100]$ and per cent provincial $[(R/P) \times 100]$ and urban rustic proportion $[(U/R) \times 100]$ are utilized to quantify level of urbanization. These are most normally utilized for estimating level of urbanization. The proportion U/P has lower limit 0 and furthest breaking point 1, for example $0 < U/P < 1$. The file is 0 for complete populace equivalent to rustic populace. At the point when entire populace is urban, this file is one. Right when half of the general population is country, it suggests that there is one urbanite for every provincial person. The urban nation extent has a lower don't limit of anything and uttermost cut-off for instance $0 < U/R < \infty$. speculatively, uttermost limit will be interminable when there is no natural people (R=0) yet this is inconceivable. From Table 3 evidently percent urban has extended from 7.4 percent in 1901 to 27.4 percent in 2011, while percent country has gradually diminished from 92.6 to 72.6 per cent during the reference period of the study. Urban rustic proportion is a basic file estimating number of urbanites for each provincial individual in an aerial unit encounters an expanding pattern during hundred years during the time spent urbanization in India. The urban commonplace extent for J&K in 2011 winds up being around 37.7, suggesting that against every 100 ruralites there are 38 urbanites in J&K in 2011. All of these records pin point that J&K is at present in urbanization. Note here that the figures evaluated for 2021 and 2031 in like manner insist the upheld urbanization in Jammu and Kashmir putting the provincial urban extent at 49.05 percent, which is incredibly close to 50:50 extent. Further, the graphical portrayal (Figure 3) additionally shows the intermixing of country urban extent which similarly indicates the speed of urbanization and moreover common urban people components. The inevitable conversation uncovers that the urbanization in Jammu and Kashmir is rushing up as time passes. The effects are in adjust-

ment to the ones of (Sovani, 1966) who has discovered comparative sample for India.

Table 3: Degree of urbanisation in Jammu and Kashmir.

Census Year	Urban Population (%)	Rural Population (%)	Urban-Rural Ratio (%)	Annual Exponential Growth Rate of Urban-Rural Ratio
1901	7.42	92.58	8.02	-
1911	11.71	88.29	13.27	5.04
1921	11.04	88.96	12.42	-0.66
1931	11.90	88.10	13.51	0.84
1941	13.12	86.88	15.10	1.11
1951	14.05	85.95	16.35	0.80
1961	16.66	83.34	19.99	2.01
1971	18.59	81.41	22.83	1.33
1981	21.05	78.95	26.66	1.55
1991	23.41	76.59	30.57	1.37
2001	24.81	75.19	32.99	0.76
2011	27.38	72.62	37.69	1.33
2021	30.00	70.00	42.85	1.28
2031	32.91	67.09	49.05	1.35

Note: Annual exponential growth rate of U/R ratio = $1/n * [ln(UR_{t+n}/UR_t)] * 100$ where ln =natural log, UR_{t+n} and UR_t =urban-rural ratio in (t+n)th t th census, t= census time, n=census interval=10

Inter-district Urbanization: Pattern

The varieties in the conveyance of urban populace across regions are critical. An enormous extent is packed in three locale, to be specific, Srinagar, Jammu and Leh, representing around 2/3rd of J&K's urban populace. Registration report 2011 uncovered higher level of urban populace in these regions contrasted with the UT normal of 27.38 per cent. The example of urban development across locale is altogether unique in relation to that of the degrees of urbanization. During most recent twenty years, created locale dependent on per capita income like Srinagar and Jammu (having a high level of urbanization) had shown low development of urban populace. Conversely, high urban development was enlisted in moderately in regions like, Kupwara, Kargil and Leh, (Table 4). This suggests that urban development and financial advancement are contrarily corresponding to one another. Urban situation in the post-freedom time frame is, accordingly portrayed by dualism. Made UTs pulled in people in urban areas because of reasonably high business openings and availability of fundamental accommodations (Figure 4). Inquisitively, the backward

Table 4: Level of urbanisation and growth of urban population across Districts.

	Percentage Urban Population							Annual Exponential Growth Rate of Percent Urban (PU)					
	1971	1981	1991	2001	2011	2021	2031	1971-81	1981-91	1991-01	2001-11	2011-21	2021-31
Anantnag	9.91	10.71	13.05	14.36	24.18	25.22	26.37	0.77	1.98	0.96	5.21	0.42	0.45
Pulwama	7.28	4.24	8.18	10.50	11.71	12.40	13.15	-5.41	6.57	2.50	1.09	0.57	0.59
Srinagar	72.90	80.50	79.36	78.69	82.55	83.94	85.23	0.99	-0.14	-0.08	0.48	0.17	0.15
Budgam	4.41	14.13	12.29	11.22	12.99	13.95	14.89	11.6	-1.40	-0.91	1.46	0.71	0.65
Baramulla	11.72	13.40	15.55	16.78	17.70	18.75	19.79	1.33	1.49	0.76	0.53	0.58	0.54
Kupwara	1.95	2.95	3.59	3.92	12.03	12.55	13.29	4.13	1.96	0.88	11.21	0.42	0.57
Kargil	4.48	5.34	7.65	8.93	11.60	12.38	13.23	1.77	3.59	1.55	2.62	0.65	0.66
Leh	10.64	12.75	20.13	24.43	34.21	35.78	37.52	1.81	4.57	1.94	3.37	0.45	0.47
Doda	5.71	6.58	6.77	6.89	6.42	6.82	7.22	1.41	0.28	0.18	-0.71	0.60	0.57
Udhampur	8.29	10.52	13.71	15.69	15.55	16.64	17.72	2.37	2.65	1.35	-0.09	0.68	0.63
Kathua	9.03	11.38	13.13	14.31	14.55	15.45	16.34	2.30	1.43	0.86	0.17	0.60	0.56
Jammu	26.40	29.64	38.74	44.14	44.28	46.47	48.61	1.15	2.68	1.30	0.03	0.48	0.45
Rajouri	3.86	5.23	6.30	6.96	8.14	8.79	9.35	3.03	1.86	1.00	1.57	0.77	0.62
Poonch	7.63	6.32	6.39	6.44	8.10	8.43	8.67	-1.88	0.11	0.08	2.29	0.40	0.28
J&K	18.59	21.05	23.41	24.81	27.38	28.62	29.91	1.24	1.06	0.58	0.99	0.44	0.44

Source: Population Census Part II-A, Series-8, 1991, 2001, 2011(Unpublished)

Note: In the absence of Census data for total, Rural & Urban population for the year 1991 growth rates have been assumed to be constant during 1980s and 1990s

Table 5: Number of cities and towns and percentage of urban population in various size categories- Jammu & Kashmir.

Census Year	Number of Towns						Percentage of Urban Population					
	Class I	Class II	Class III	Class IV	Class V	Class VI	Class I	Class II	Class III	Class IV	Class V	Class VI
1901	1	-	1	-	-	-	77.2	-	22.76	-	-	-
1911	1	-	1	-	6	37	47.05	-	11.82	-	16.77	24.30
1921	1	-	1	-	6	21	52.93	-	11.77	-	15.97	19.33
1931	1	-	1	2	3	24	54.62	-	12.15	6.83	6.38	20.02
1941	1	1	-	3	3	24	53.75	13.03	-	9.44	5.86	17.92
1951	1	1	-	3	7	13	53.92	16.74	-	10.54	10.31	8.49
1961	2	-	1	4	6	30	65.39	-	3.55	10.00	6.70	14.36
1971	2	-	3	3	17	20	66.79	-	9.52	5.33	12.67	5.69
1981	2	-	5	7	20	24	64.23	-	11.74	6.97	11.60	5.46
1991	2	3	6	14	20	23	61.96	14.04	9.09	9.16	8.64	4.12
2001	2	5	6	21	20	21	59.69	14.04	6.45	11.35	5.69	2.78
2011	3	1	12	30	37	32	58.7	2.6	9.0	17.8	8.5	3.4

Source: Population Census Part II-A, Series-8, 1991, 2001, 2011(Unpublished)

Note: The towns have been placed in six categories, following demographic criterion as given below

Class I: towns-1,00,000 or more; Class II: From 50,000 to 99,999; Class III: From 20,000 to 49,999; Class IV: From 10,000 to 19,999; Class V: From 5,000 to 9,999; Class VI: Below 5,000.

area experienced fast urban turn of events. This can midway be credited to the public power theory on natural establishment, and move of resources from the UTs to neighbourhood bodies through a need-based, without a doubt is predominantly known as ‘an opening filling’, approach. A piece of common urban

migration into more unassuming towns from their rural hinterland in regions could, regardless, be explained the extent that push factors, owing to nonappearance of expanding in agrarian economy.

Urban Morphology of Jammu and Kashmir

The example of urbanization during 1901-2011 in J&K is portrayed by consistent convergence of populace and exercises in enormous urban areas which show high level of urban populace moved in class I urban communities. Notwithstanding, the figures uncover that the populace has deliberately gone down beginning around 1981 onwards (Table 5). The level of that populace in class I and III were 64.23 per cent, and 11.74 per cent separately, in 2001 and it boiled down to 60 per cent in class I urban communities and diminished further to 58.7 per cent in 2011. The grouping of populace in medium and modest community either vacillated or declined. It is seen that the growing strength of class I urban regions is up-level of lower demand towns into class I characterizations. The level of the amount of urban concentrations from lower populace size groupings to class I urban networks has achieved abnormal development of urban populace in J&K. Regardless, in any case the figure of extension number of tremendous urban networks, the meaning of a faster portion improvement, dejection started migration to urban easy-going region ought to be considered in making urban development top throwing. The results are in agree to those of (Kundu, 1983; Kundu, 1994; Mukherjee, 1995) who moreover uncovered similar conditions at public level.

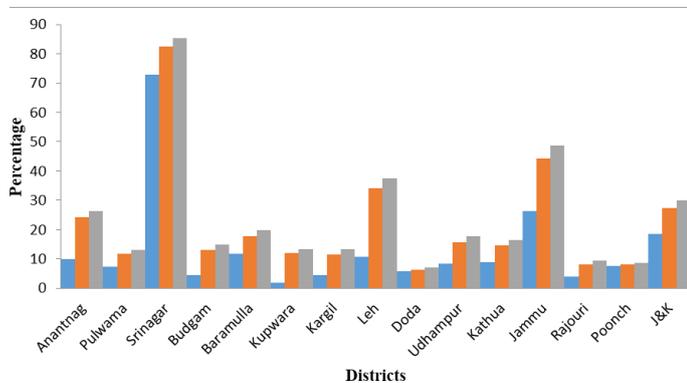


Figure 4: Pattern of urbanization

A glance at 1981 Census information, showing the urban populace (Table 6) by size-class, one can assume an abatement in imbalance in urban construction. The dispersion of population in various size-class is probably going to turn out to be increasingly slanted. The region insightful dispersion of urban population is given in Table 6. In 2011 the quantity of class I towns were 3 with a strength of 58.7 per cent of complete urban populace. The region with most noteworthy extent of its urban populace in class I town is Srinagar with 97.5 per cent of urban populace, trailed by locale

Jammu with a level of 75.3 and Anantnag with 53.1 per cent. During a similar statistics period just area Udhampur had class II town in the UT comprising 2.6 per cent of urban populace of J&K and ingests 77.6 per cent of urban populace. The 12 of class III towns contribute 9.0 per cent of the urban populace in the UT. The biggest number of class III towns was in Jammu locale followed by area Anantnag. The remainder of the towns were shared similarly by locale Kulgam, Pulwama, Kupwara, Srinagar, Bandipora, Doda and Rajouri. The level of urban populace in locale Doda comprised 66.1 per cent followed by Rajouri with 56.4 per cent, Kulgam with 29.3 per cent, Pulwama with 26.9 per cent, Kupwara with 20.8 per cent, Anantnag with 16.2 per cent, Jammu with 9.1 per cent and Srinagar with 1.8 percent.

Consumption-Expenditure Pattern in Jammu and Kashmir

The mountainous states are having more food consumption per capita than other states. Inferable from being delicate, distant and ineffectively portable, these UTs require more energy contrasted with fields. The province of Jammu and Kashmir is one among those states which have greater seriousness of these attributes and positions at fifth situation after Arunachal Pradesh, Manipur, Mizoram and Nagaland as far as utilization. The rate use on utilization of different food things according to NSSO reports of the 50th round (1993-94) and 66th round (2009-10), relating to both rustic and urban spaces of Jammu and Kashmir UT are introduced in Table 7.

As per the economic theory, as the income rises the expenditures on fruit, milk and milk-product, meat, eggs and fish increases and expenditure on cereals, pulses and other primary products decrease. In the UT of J&K same trend has been observed over the years. The figures reveal that expenditure on cereals and pulses as a percentage of total food expenditure has decreased from 34.42 (1993-94) to 29.09 (2009-10) in rural areas, 22.46 (1993-94) to 21.71 (2009-10) in urban areas and from 7.88 (1993-94) to 5.32 (200-10) in rural areas, 6.14 (1993-94) to 3.98 (2009-10) in urban areas respectively. The overall spending on meat, egg, fish and fruits & vegetables to the total food expenditure (in percentage terms) has increased from 2.04 to 5.3 (1993-2010) in rural parts, likewise has also increased from 4.3 to 9.17 (1993-2010) in urban areas and from 10.41 to 13.39 (2009-1993-2010) in rural areas and from 14.92 to 18.65

Table 6: Number of towns and percentage of urban population in various size classes: 2011.

District	No. Of Towns by size class						Percentage of urban population by size class					
	I	II	III	IV	V	VI	I	II	III	IV	V	VI
Anantnag	1	-	2	2	7	-	53.1	-	16.2	10.4	20.3	-
Kulgam	-	-	1	3	3	1	-	-	29.3	44.9	25.4	0.5
Pulwama	-	-	1	3	1	-	-	-	26.9	60.8	12.2	-
Shopian	-	-	-	1	-	-	-	-	-	100	-	-
Srinagar	1	-	1	-	1	1	97.5	-	1.8	-	0.4	0.2
Ganderbal	-	-	-	-	-	-	-	-	-	-	-	-
Budgam	-	-	-	5	4	1	-	-	-	61.6	35.7	2.7
Baramulla	-	-	-	2	-	5	-	-	-	-	84.0	16.0
Bandipora	-	-	1	2	-	-	-	-	-	56.7	43.3	-
Kupwara	-	-	1	3	5	1	-	-	20.8	40.2	35.2	3.8
Kargil	-	-	-	1	-	-	-	-	-	100	-	-
Leh	-	-	-	-	-	3	-	-	-	-	-	100
Doda	-	-	1	1	-	-	-	-	66.1	33.9	-	-
Kishtwar	-	-	-	1	-	-	-	-	-	100	-	-
Ramban	-	-	-	-	-	-	-	-	-	-	-	-
Udhampur	-	1	-	-	3	2	-	77.6	-	-	18.5	3.9
Reasi	-	-	-	-	3	2	-	-	-	-	81.2	18.8
Kathua	-	-	-	1	-	5	-	-	-	67.3	-	32.7
Jammu	1	-	3	2	5	7	75.3	-	9.1	7.0	4.6	4.0
Samba	-	-	-	2	3	1	-	-	-	52.5	38.9	8.6
Rajouri	-	-	1	1	2	-	-	-	56.4	19.9	23.7	-
Poonch	-	-	-	-	-	3	-	-	-	-	-	100
J&K	3	1	12	30	37	32	58.7	2.6	9.0	17.8	8.5	3.4

Source: Population Census Part II-A, Series-8, 2011(Unpublished)

Note: The towns have been placed in six categories, following demographic criterion as given below

Class I: towns-1, 00,000 or more; Class II: From 50,000 to 99,999; Class III: From 20,000 to 49,999; Class IV: From 10,000 to 19,999; Class V: From 5,000 to 9,999; Class VI: Below 5,000.

Table 7: Composition of food basket of rural and urban population in Jammu & Kashmir. (Per cent share of food expenditure)

Commodity	Rural		Urban	
	1993-94	2009-10	1993-94	2009-10
Cereals	34.42	29.09	22.46	21.71
Pulses	7.88	5.32	6.14	3.98
Meat, Egg and Fish	2.04	5.68	4.3	9.17
Milk and Milk products	21.51	21.32	25.8	20.29
Total Fruits and Vegetables	10.41	13.39	14.92	18.65
Edible Oil	7.39	8.57	7.53	7.5
Other Food	16.36	16.7	18.85	18.7
Total Food Expenditure	100	100	100	100

Source: Various NSS Rounds on Consumer Expenditure Surveys published by the National Sample Survey Organisation, Government of India.

(2009-1993-2010) in urban areas respectively. In rural areas expenditure on milk and milk products as a percentage of total food expenditure has remained almost constant over the period 1993-94 to 2009-10. While in urban areas expenditure has decreased from 25.8 to 20.29. The expenditure on edible oil and other food items as a percentage of total food expenditure has remained almost constant over the reference period.

Availability of Food Production in Jammu and Kashmir
 Jammu and Kashmir's population is rapidly expanding and the per capita availability and production of rice, wheat and cereals shows substantial decline during the last decade of reforms. While a maximum of per-capita 296 availability in production in rice during 1981 and 250 gm/person/day was recorded respectively in the corresponding figures of 198 and

Table 8: Production and availability of cereals in J&K. (gm per day)

Year	Population (Million)	Rice		Wheat		Cereals	
		Per capita availability	Per capita production	Per capita availability	Per capita production	Per capita availability	Per capita production
1961	3.56	215	198	99	86	505	475
1971	4.61	257	236	198	148	690	619
1981	5.98	296	250	112	94	647	582
1991	8.06	259	195	132	101	548	455
2001	10.14	183	114	119	92	452	357
2011	12.54	260	118	170	109	539	337
2021	14.58	351	122	231	127	634	318
2031	17.05	456	126	302	146	737	300

Table 9: Availability of gross / net area sown and area under forests. (ha.)

Census Year	Per capita forest area	Per capita net sown area	Per capita gross sown area
1961	0.19	0.18	0.23
1971	0.14	0.15	0.19
1981	0.11	0.12	0.16
1991	0.08	0.09	0.14
2001	0.06	0.07	0.11
2011	0.05	0.06	0.09
2021	0.04	0.05	0.07
2031	0.03	0.04	0.06

148 gm/person/day in wheat in 1970. However, the overall average of 690 and 619 gm/person/day under cereals was recorded in 1971 (Table 8). Further, the lowest figure of 452 of availability and 357gms per capita production were recorded in cereals in 2001. Since 1981 through 2001, availability and production has steadily declined in rice and cereals, throughout what is popularly referred to as the years of liberalisation and reforms. However, in 2011 availability as well as production has picked up to the extent of 260 gm/person/day and 118 gm/person/day in case of rice, 170 gm/person/day and 109 gm/person/day in case of wheat and 539 gm/person/day and 337 gm/person/day in case of cereals respectively. The abrupt increase in per capita availability and production of cereals in 2011 may be attributed to the marginal decrease growth rate of population as compared to previous decade. The projection as for accessibility and creation of rice for the year 2021 and 2031 is additionally expected to increment 351 gm/individual/day and 122 gm/individual/day by and 456 gm/individual/day and 126 gm/individual/day separately. If there should be an occurrence of wheat it is projected that the acces-

sibility and creation will ascend to 231 and 127 gm/individual/day, separately by 2021 and 302 and 146 gm/individual/day by 2031. In the event of oats the accessibility is relied upon to ascend to 634 gm/individual/day by 2021 and 737 gm/individual/day by 2031. However, the creation of cereals is relied upon to tumble to 318 gm/individual/day by 2021 and 300 gm/individual/day by 2031.

Declining trend in Forest Cover

The growth in population has resulted in a downward trend in per capita availability of forest/ gross and net sown area, since 1960s (Table 9).

The per capita availability of area under forests, gross and net sown area has consistently declined. The per capita availability of forest cover land declined from 0.19 ha. from 1961 to 0.05 ha. in 2011. Populace development is having quicker rate than that of expansion in woods cover. In the course of the most recent couple of years, in spite of administrative drives of joint timberland the executives, the unmistakable outcomes are still to be accomplished. The timberland region is declining reliably (Table 9). The timberland region, net and gross planted decreased from 0.19 to 0.05; 0.18 to 0.06 and 0.23 to 0.09 individually. The evaluations for 2021 and 2031 is put at 0.04 and 0.03 and 0.05 and 0.04; 0.07 and 0.06, individually.

Dynamics of Work Force in Jammu and Kashmir

In Srinagar district, the growth rate of rural agricultural labourers has decreased considerably, the reason being the stagnant and less remunerative nature of agriculture. The labourers have shifted from farm to non-farm works. But in contrast, the growth rate of agricultural labourers in urban centre of Srinagar has increased substantially, the reason being the faulty

Table 10: *Work force structure and non-workers (1981).*

	Srinagar		Jammu				J&K					
	Rural		Urban		Rural		Urban		Rural		Urban	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Main workers	41738	4173	154312	13151	167930	6918	70614	6010	1317376	136664	334470	30061
Marginal workers	2175	24188	770	6695	19281	95651	1173	4370	109946	691981	4423	25123
Agricultural labourers	2301	304	3028	80	11300	858	1502	78	51685	3291	8205	359
Cultivators	26229	2490	6225	641	98839	2717	3984	144	901490	120850	26537	3020
Other workers	9138	480	122869	8444	54750	2960	64792	5664	311819	18043	273510	21430
Total workers(main+ marginal)	43913	28361	155091	19846	187211	102569	71787	10380	1427322	828645	338893	55184
Non-workers	29430	36429	149764	245503	156536	217435	76438	121039	1065091	1405928	333354	532972

Table 11: *Work force structure and non-workers (2001).*

	Srinagar		Jammu				J&K					
	Rural		Urban		Rural		Urban		Rural		Urban	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Main workers	48590	7611	248775	25219	198887	20099	188720	26724	1559977	302652	666981	79058
Marginal workers	14385	9930	13885	16274	32857	45997	9489	5558	408572	653485	44411	38679
Agricultural labourers	9856	2275	4754	576	17191	7936	25127	647	174457	52868	15882	3214
Cultivators	19100	4669	4062	1323	87879	40999	4201	1497	981303	578330	23232	8649
Other workers	26054	6372	229311	24781	122673	14952	190974	29591	719617	239200	639188	83403
Total workers(main+ marginal)	62975	17541	262660	41493	231744	66096	198209	32282	1968549	956137	711392	117737
Non-workers	70959	104806	252897	389116	234945	354769	185404	285323	2009103	2693273	671882	1015627

Table 12: *Structure and distribution of work force in urban cities (2011).*

	Srinagar		Jammu				J&K					
	Rural		Urban		Rural		Urban		Rural		Urban	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Main workers	41117	4938	295462	41979	202905	25740	216592	39236	1453157	216657	852631	121704
Marginal workers	25287	18692	44590	36013	58734	24238	21177	12526	758849	684418	130453	104844
Agricultural labourers	12344	5246	9803	2327	31210	7492	3626	650	376051	122480	38293	10881
Cultivators	7758	6831	8257	4719	64858	15775	3958	916	729874	450510	35653	29279
Other workers	42910	7818	309701	62639	160748	24104	227292	48410	1036764	264268	887117	168957
Total workers(- main+ marginal)	66404	23630	340052	77992	261639	49978	237769	51762	2212006	901075	983084	226548
Non-workers	76227	101459	327161	521350	279329	439282	204208	324889	2562471	3432508	883101	1340509

records put forward by patwaris, they still show those lands as agricultural lands which are put to non-agricultural uses especially to construction.

The growth rate of male cultivators in part of Srinagar has declined substantially from -1.59 during 1981-2001 to -9.01 during 2001-11 (Tables 10-12). But for female cultivators, the growth rate has remained

almost same, the reason being that they do not prefer to go far away from their homes to work in non-farm sector. Again there is a paradox in urban centre of Srinagar, the growth rate of cultivators has increased substantially. The growth rate of urban male cultivators has increased from -2.13 during 1981-2001 to 7.09 during 2001-11 (Tables 10-12).

Table 13: Annual exponential growth rate of work force.

Census Year		Srinagar		Jammu				J&K					
		Rural		Urban		Rural		Urban		Rural		Urban	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1981-2001	Main workers	0.76	3.00	2.39	3.26	0.85	14.53	4.92	7.46	0.85	3.98	3.45	4.83
	Marginal workers	9.45	-4.45	14.46	4.44	2.67	2.40	10.45	1.20	6.56	-0.29	11.53	2.16
	Agricultural labourers	7.27	10.06	2.26	9.87	2.10	46.25	14.09	10.58	6.08	13.88	3.30	10.96
	Cultivators	-1.59	3.14	-2.13	3.62	-0.59	75.45	0.27	11.71	0.42	7.83	-0.67	5.26
	Other workers	5.24	12.93	3.12	5.38	4.03	25.26	5.40	8.27	4.18	12.92	4.24	6.79
	Total workers(main+ marginal)	1.80	-2.40	2.63	3.69	1.07	3.22	5.08	5.67	1.61	0.72	3.71	3.79
	Non-workers	4.40	5.28	2.62	2.30	2.03	8.16	4.43	4.29	3.17	3.25	3.50	3.22
2001-11	Main workers	-1.67	-4.33	1.72	5.10	0.20	2.47	1.38	3.84	-0.71	-3.34	2.46	4.31
	Marginal workers	5.64	6.33	11.67	7.94	5.81	-6.41	8.03	8.13	6.19	0.46	10.78	9.97
	Agricultural labourers	2.25	8.35	7.24	13.96	5.96	-0.58	-19.36	0.05	7.68	8.40	8.80	12.20
	Cultivators	-9.01	3.81	7.09	12.72	-3.04	-9.55	-0.60	-4.91	-2.96	-2.50	4.28	12.19
	Other workers	4.99	2.05	3.01	9.27	2.70	4.78	1.74	4.92	3.65	1.00	3.28	7.06
	Total workers(main+ marginal)	0.53	2.98	2.58	6.31	1.21	-2.80	1.82	4.72	1.17	-0.59	3.23	6.55
	Non-workers	0.72	-0.32	2.57	2.93	1.73	2.14	0.97	1.30	2.43	2.43	2.73	2.78

In Jammu district the growth rate of agricultural labourers in urban centre has decreased considerably as the economic theory predicts. The growth rate of male agricultural labourers has decreased from 14.09 during 1981-2001 to -19.36 during 2001-11 and also the growth rate of female agricultural labourers has decreased from 10.58 to 0.05 during 1981 to 2011, this could be ensued to low productive nature of agriculture compared to other allied sectors.

A glance over the Table 13 clearly gives us the picture of J&K, Srinagar and Jammu. The growth rate of both agricultural labourers and cultivators has decreased somewhere substantially and at others marginally, with exceptions. Following reasons could be responsible:

1. J&K is a mountainous UT, so agricultural land are scarce and population growth is very high which has resulted into fragmentation of land and consequent decrease in land holding size. The low land holding size has resulted into less productivity and shift of people towards other economic activities other than agriculture.
2. The impact of Green Revolution in J&K has not taken place yet.
3. The small land holding size appears to have forced the people to move from farm to non-farm activities as people cannot make their livelihood from

farm sector.

4. The climate of J&K is volatile and there is the non-availability of climate resistant technologies.

Conclusions and Recommendations

As indicated by neo-classical school of economics, the opening up of economy through advancement, privatization and globalization (LPG) would prompt gigantic inflow of capital from outside just as it might prompt an ascent in native venture in this manner speed up country urban (RU) movement and lift the speed of urbanization. The new information from the census, in any case, doesn't affirm something very similar, since the yearly development rate (remarkable) of urban populace in India has gone down from 0.97% during 1981-91 to 0.77% during 1991-2001. Be that as it may, during 2001-11 it has expanded to 1.15%. The J&K UT has feeble modern base and predominant agribusiness and united area, so has shown no much expansion in urban populace because of relocation. Notwithstanding, expansion in urban populace happened place only from normal expansion in urban populace and making of new towns. Despite the fact that there is an increment in outright number of urban populace, the development pace of urban populace has diminished, with the exception of few decades. The urban-rural ratio for J&K in 2011 turns out to be around 37.7, meaning that against every 100 ru-

ralites there are 38 urbanites in J&K. All these indices point out that J&K is in the process of urbanization. The nearby variations within the distribution of urban populace are huge. During last many years, developed districts along with Srinagar and Jammu (having a high per cent of urbanisation) based on in step with capita income have shown low increase of city populace. In evaluation, high city growth was registered in incredibly backward districts specifically, Anantnag, Kupwara, Kargil and Leh. The example of urbanization in J&K is described by centralization of populace and exercises in huge urban areas. This is appeared in an unnecessary level of city people being engaged in style I urban areas and its general population has methodically well beyond down from 1981 throughout the long term. The consideration of populace in medium and unassuming community either vacillated or declined. To be sure central reason for the expanding predominance of class I towns seems graduation of diminishing request urban areas into class I classes. The figures uncovered that use on oats and heartbeats as a level of complete food use has diminished. The financial hypothesis proves that as the pay rises, the use necessities like natural products, milk and milk-item, meat, eggs and fish increments and use on oats, beats and other essential items diminishes. In J&K UT same pattern has similar course throughout the long term.

The review inferred that, per capita accessibility and creation of rice, wheat and oats has declined significantly during the last ten years of changes. In the event of grains the accessibility is relied upon to ascend to 634 gm/individual/day by 2021 and 737 gm/individual/day by 2031. In any case, grains creation is relied upon to tumble to 318 gm/individual/day by 2021 and 300 gm/individual/day by 2031. The study further reveals that per capita availability of forest land, gross sown area and net sown area has decreased over the decades. The per capita availability of forest cover has also proven decline from 0.19 ha. In 1961 to 0.05 ha. In 2011 and is predicted to say no to the volume of 0.03 ha. In 2031. The per capita availability of net sown area has declined from 0.18 ha. in 1961 to 0.06 ha. in 2011 and is expected to decline to the extent of 0.04 ha. by 2031.

It may also be concluded that the share of different working class people has varied differently in case of different categories over the period from 1981-2001 to 2001-2011.

Local governments in many cities are currently facing two serious problems in attracting business houses for investment. First and foremost the political instability in the UT, and second the scarcity of land within the central cities and in their peripheries. Organizations like the World Bank and USAID have suggested that the floor space list (FSI) in the focal region of the city ought to be expanded so that multi-storeyed designs can be assembled and developed in a legitimate way which will oblige other business foundations also. The procedure of allowing vertical development in regions with high land esteems has empowered the nearby bodies to observe more space for these business houses and, simultaneously, create assets for infrastructural improvement by selling the extra FSI. Overall urban arranging should focus on:

1. Balanced regional and urban planning.
2. Economic base for urban economy should be very strong and sound.
3. Integration of rural and concrete financial system-emphasis on agro-primarily based industry. Raw material should be processed in rural financial system after which transferred to urban economic system.

Novelty Statement

The study has brought to the forefront that not only people from rural areas has migrated to urban areas, but the urban population has increased due to increase in number of new towns. Land cover has decreased, forest cover has decreased, floor space index is not properly used in urban areas for construction of residential apartments. With all these issue highlighted by the study, it will be an eye opener for the policy makes to think how the urban sprawl can be checked in the union territory of J&K.

Author's Contribution

Masudul Haq Wani: Developed the idea, conceptualize the theme and correct the final draft.

Arshad Bhat: Developed the methodology, wrote the protocol, analysed the data and interpreted the data.

Conflict of interest

The authors have declared no conflict of interest.

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