Exploratory Analysis of Social Infrastructure Services in the Kashmir Valley of Jammu & Kashmir, India

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Abstract

Social infrastructure Services plays an important role in both the economic development of a nation and the development of society's quality of life. The development is supposed to be inclusive in terms of social infrastructure services like electricity, drinking water, health centres, toilets, housing, communication, school and so on. These infrastructures are necessary and integral part of human development in any community living in rural and urban areas. This Study is about the availability and accessibility of Social infrastructure services in the Kashmir Valley. It has been found from this study that in terms of Social infrastructure services, Kupwara, Ganderbal, Bandipora, and Kulgam districts are least developed districts in the Kashmir Valley .There has been given less emphasis to the socio-economic development in these districts compared to other districts. These districts are still lacking from the availability and accessibility of social infrastructure services in the Kashmir valley. The poor policies, lack of good governance and poor investment climate has left the development of region in its infant stage and has been led to the unequal and unplanned distribution of Social infrastructure across the region.

Keywords: Inclusive, Kashmir valley, Social Infrastructure, Infant-Stage, Accessibility

1. Introduction

The Development of Infrastructure services is widely recognized with a general consensus being emerging across the globe that Infrastructure development is a reflection of how well the economy is

operating and that infrastructure has a direct and positive relation with the economic development of the nation .By definition infrastructure is the public stock of social and economic overhead capital because of its huge potential for improving the standard of living and its large scale impact on the economy as whole ,which has been mentioned quite often by the many developmental economists such as Rosenstein Rodan (1943),Lewis (1955),Hirschman(1958),Myrdal(1958),Hansen(19565) and others. According to Lewis infrastructure include public utilities, ports, water supply and electricity, whereas Hirschman figure four condition's that attribute infrastructure or social overhead capital i.e. the services provided to facilitate or are basic to economic activity; the services are usually public goods, because of economic externalities ; these services cannot be imported; these investments tend to be indivisible or lumpy (Hirschman).According to Foseetal (1955) infrastructure includes agriculture infrastructure, irrigation and public access to water, means of transportation ,storage services, commercial infrastructure, processing infrastructure, public services, agricultural research and extension services, communication and information services, land conservation services, credit and financial institution and finally health and education services. Social Infrastructure services are considered as a key determinant of people's well-being .Accessibility to basic social services is significant to well-being and suitable stand of living (Kunar 2015) .Social Infrastructure services play an important role in the growth and Capacity building by increasing the quality of life with education, healthcare and recreation facilities. There is a mismatching of demand and supply of socioeconomic infrastructure services, which lead led to poor sanitation, lack of drinking water, sewerage problems and lack of services. By taking considerations of future implications, there is supposed to reduce the mismatching of demand and supply of social infrastructure facilities (Haque I, 2016) .

The availability of adequate social infrastructure increases the productivity and lowers production costs due to the economies of scale potential of infrastructure services, but this adequate infrastructure should be expand very fast enough to accommodate growth .The infrastructure and development linkages are yet to be firmly established ,it is calculated that infrastructure development grows step by step with economic output - a 1%increase in stock of infrastructure is associated with a 1% increase in GDP across all countries

(Summers&Heston1991).The Rostow's theory of stages of growth ,considered social overhead capital especially in transport and communication as one of the main pre-conditions for take-off (Rostow 1960). The basic needs such as food, clothing, water and shelter dominate human development and livelihood. These and other needs can be met when people have adequate access to facilities such as housing , water supply, electricity, markets ,and transportation (Aderamo&Aina 2011).The investment in cities and districts required adequate social infrastructure in the form of transportation, education ,housing ,basic amenities and services (Bagchi &Chattopadhyay 2004).

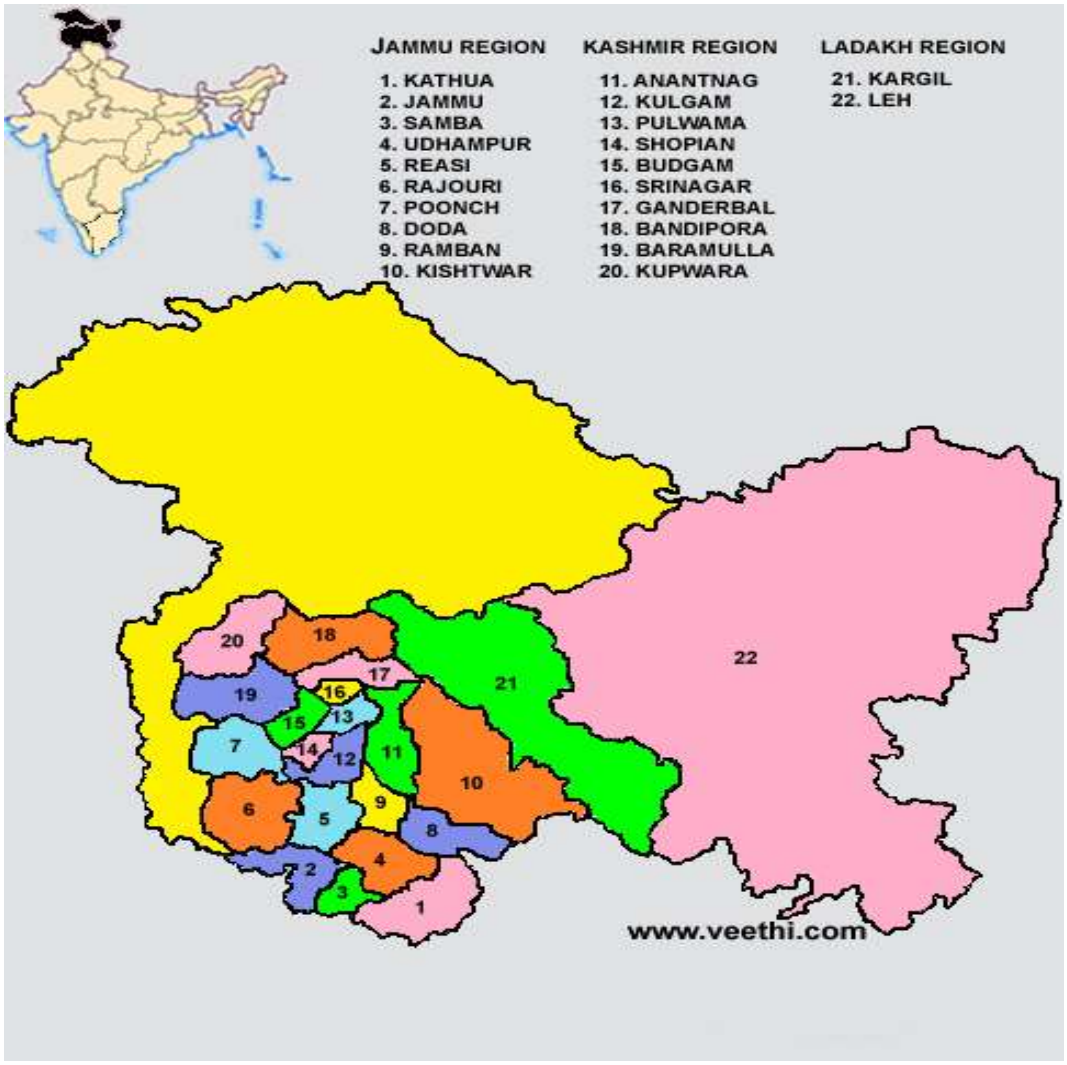
The United Nations focuses on achieving Millennium Development Goals(MDG) including employment opportunities, social protection, basic needs and access to services for all .This can be accomplished by strengthening governance and revamping the foreign policy and judiciously leveraging the power of all stakeholders. Furthermore there should be left behind no person anywhere in this age of technological advancement .There is not supposed to live hungry, without shelter, without clean water and sanitation, without access to basic health facilities and education. These basic amenities are human rights of people in order to have decent standard of living (United Nations General Assembly 2013).

As it has been mentioned in the Jammu and Kashmir state development report (SDR),the actual challenge of development is narrowing the gap between rich and poor through poverty- reduction programmes. The SDR focuses on people's well-being and the expansion of their choices and opportunities, highlighting the shortcomings of the development, identifying new resources and collaborations for a practical solution. There have been suggested a policy framework for revamping the developmental process that addresses intra-state disparities and diversities (Planning commission 2003). For instance Integrated Child Development Service (ICDS) scheme is implemented by the central government with the aim to provide employment ,reduce poverty and improve the quality and standard of life in the Kashmir valley. This scheme also provide basic infrastructure assets which are essential for development of the region(Haque&Wani,2013) .Khan (2006) argued that the dispersed pattern and small size of settlements, poor means of transport and communication in the Kashmir valley pose a serious problem to the development of education, the outcome

of which is unequal development in the overall development .

2. STUDY AREA

Jammu and Kashmir, the northern state of India, is the home of majestic snow-capped mountains, picturesque rivers and green forests. The state has an area of 222236 square kilometres and a population of about 10,143,700 (census of India 2001) .The Kashmir valley regions of Jammu and Kashmir State lies between the Karakoram and the Pir-Panjal range. Jammu and Kashmir State (Census of India 2011) .The Kashmir valley consists of the following districts: Budgam, Bandipora, Anantnag, Baramullah, Ganderbal, Kulgam, Pulwama, Kupwara, Shopian and Srinager.



Source: veethi.com

3. Objective

1. To study and analyse the availability and accessibility of social infrastructure services in the Kashmir valley.

4. Database and Methodology

The purpose of this study is to evaluate the existing conditions of social infrastructure services in the Kashmir valley. The literature review has been done with help of books, Journals, articles and other sources. The primary database for this study is secondary sources. The date have been extracted from the primary census abstract (Census of India) and from the census report from the director of economic and statistics of Jammu and Kashmir. On the basis of selected indicators, an evaluation has been done to find out the existing conditions of Social Infrastructure services in terms of drinking water, housing, school, toilets, and other social services. The selected indicators are evaluated at district level statistically. After that comparison of each indicator has been done with Kashmir Valley as well as with the State average. The indicators which have been chosen for this study is given below in the table 1, 2, 3.

Table1: Indicators of Social Infrastructure Services (2011-12)

Serial No.	District Name	Households With electricity (in%)	Households With using firewood (in%)	Households With treated drinking water (in%)	Households With latrine (in%)	Households With using LPG/NPG (in%)	No.of school per 100 sq.km
1	**Kulgam**	69	76	8	45	6	105
2	**Anantnag**	80	72	24	57	20	62
3	**Shupiyan**	84	70	25	61	9	102
4	**Pulwama**	91	61	30	66	21	134
5	**Ganderbal**	89	69	55	73	24	66
6	**Srinager**	99	6	82	98	82	708
7	**Bandipora**	80	67	17	74	16	123

8	**Baramula**	95	64	37	78	23	165
9	**Badgam**	91	56	30	84	15	125
10	**Kupwara**	78	80	13	51	15	121

Source: Directorate of Economic and Statistical Department (DESD), Jammu & Kashmir,2011-12 and Census of India (Primary census Abstract)2011

Table2: Indicators of Social Infrastructure Services (2011-12)

Serial No.	**District Name**	**No.of medical institution per 100 sq.km**	**Occupied census houses used as hospital/dispensary (in%)**	**Occupied census houses used as shops/offices(in%)**	**Occupied census houses used as school/colleges(in%)**	**Occupied census houses used as hotals/lodges/guesthouses (in%)**	**Road length per 100 sq.km**
1	**Kulgam**	12	0.15	8.91	0.73	0.04	76
2	**Anantnag**	19	0.14	10.5	0.69	0.26	85
3	**Shupiyan**	15	0.14	10.52	0.84	0.07	122
4	**Pulwama**	14	0.15	9.6	0.7	0.07	124
5	**Ganderbal**	16	0.22	9.97	0.84	0.16	43
6	**Srinager**	121	0.15	17.62	0.57	0.56	968
7	**Bandipora**	9	0.15	8.43	0.94	0.09	89
8	**Baramula**	28	0.21	10.86	1.15	0.16	112
9	**Badgam**	16	0.18	9.46	0.88	0.08	133
10	**Kupwara**	20	0.26	9.49	1.23	0.09	56

Source: Census of India (Primary census Abstract) 2011.

Table3: Indicators of Social Infrastructure Services (2011-12)

Serial No.	District Name	No. of registered vehicles per 100 sq.km	No. of post offices per 100sq.km	Households with availability of television (in%)	Households with Availability of mobile (in%)	Households with availability of car/jeep/van (in%)	House holds with availability of computer/laptop(in %)
1	**Kulgam**	762	10	37	67	3	5
2	**Anantnag**	1231	15	47	63	6	6
3	**Shupiyan**	1024	2	47	71	9	8
4	**Pulwama**	786	7	56	70	8	7
5	**Ganderbal**	29	2	47	56	5	6
6	**Srinagar**	6453	49	91	72	20	20
7	**Bandipora**	574	8	45	55	3	5
8	**Baramula**	1034	18	51	66	6	76
9	**Badgam**	1996	6	54	66	5	6
10	**Kupwara**	331	3	25	50	2	4

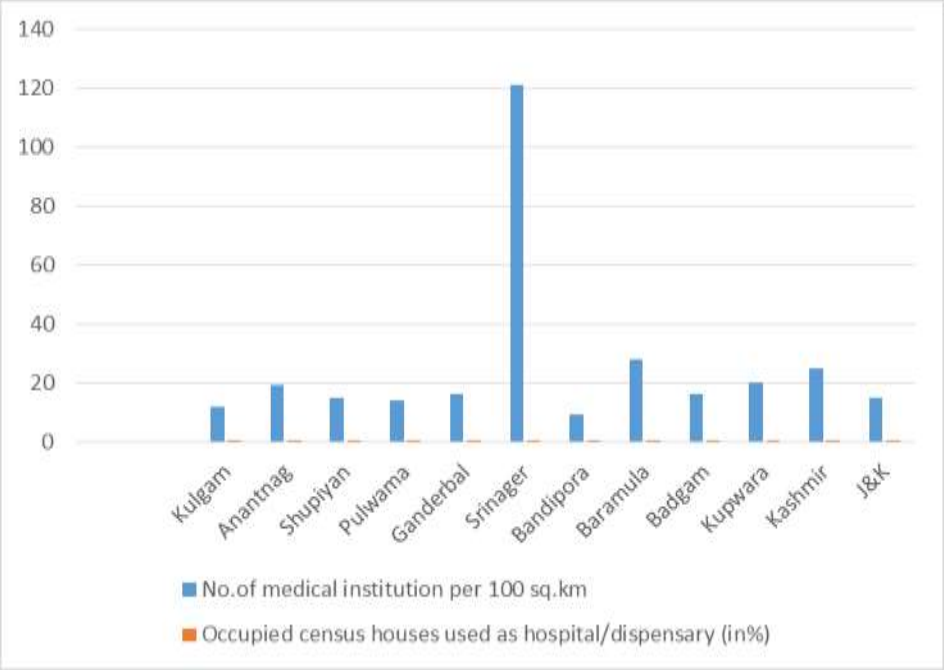
Source: Census of India (Primary census Abstract) 2011

5. Results and Discussion

The increasing population and urbanization has affected the people's livelihood in terms of drinking-water, housing, transport, solid waste and other social services particularly in urban districts .Infrastructure both social and physical have always been in cavilling conditions in the Kashmir region because of the rugged topography, border region, and severe weather conditions ,due to which infrastructure projects involves huge risk , long gestation period, big initial investment , large diseconomies of scale and high marginal cost on investment infrastructure. Although militancy and lack

of proper decentralization planning has left the Kashmir valley in its infant stage in terms of social infrastructure services. The results of social infrastructure indicators have been given discussed below along with discussion:

Fig1:No. of Medical Institutions per 100sq.km and Percentage Share of Occupied Census Houses used as Hospital\Dispensary etc (2011-12).

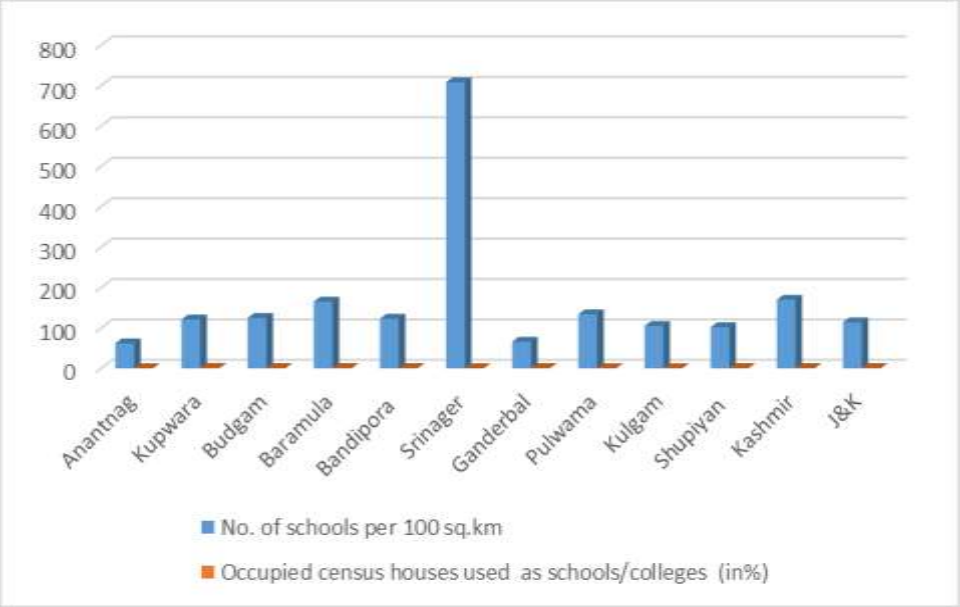


Source: Directorate of Economic and Statistical Department (DESD), Jammu &Kashmir, 2011-12 and Census of India (Primary census Abstract) 2011

Healthcare has always been a key concern in the region .The key parameters of healthcare system are medical institutions, hospitals, and dispensary. The number of medical institutions per 100 sq. km in the districts of Bandipora, Kulgam, Shupiyan and Pulwama are lower than the state (15) and Kashmir valley average (25). There is need to develop medical institutions in these districts. Similarly, the number of medical institutions per 100 sq.km in the Srinagar and Baramulla districts is higher than the Kashmir valley (25) and State (J&K) average. Srinagar district being the summer capital and also a city has maximum number of medical institutions per 100sq.km while Bandipora has the least in Kashmir valley. The percentage share of occupied houses used as Hospital/dispensary are higher than the State(0.21%) and Kashmir valley(0.18%) average in the districts of Kupwara, Ganderbal, Baramulla. However in the case of Shupiyan and Bandipora districts,

less occupied houses are used as hospitals, dispensaries.

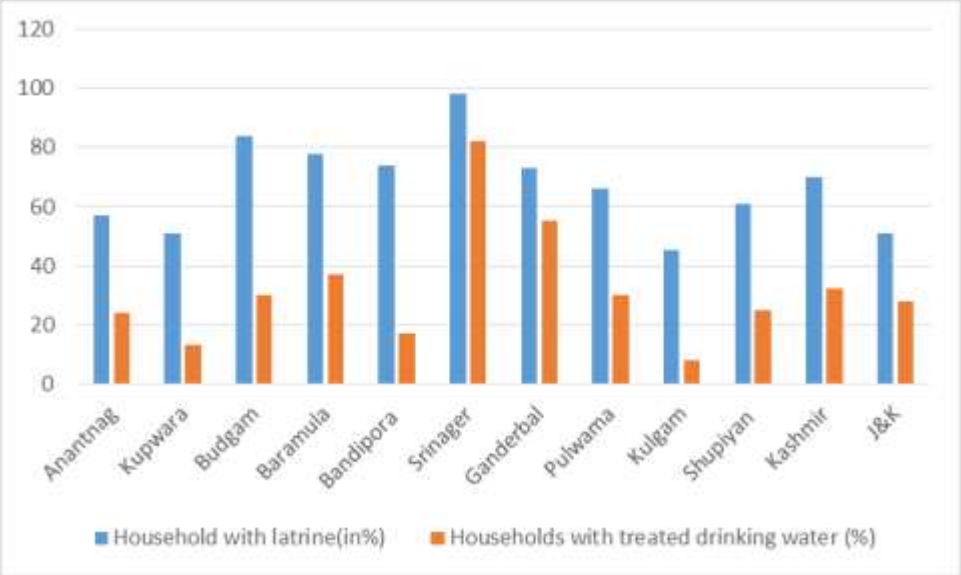
Fig2: No. of Schools per 100sq.km and Percentage Share of Occupied Census Houses used as school\college etc (2011-12).



Source: Census of India (Primary census Abstract) 2011

The quality and educational facilities of schools are determined through availability and accessibility of educational assets. Due to the insurgency and inadequate educational facilities in primary and Secondary schools, particularly in border districts, access to quality education has always been challenging factor in the Kashmir valley. The above figure suggests that educational assets are much better in the cities and towns compared to its remote areas. The number of schools per 100 sq.km in the Srinagar district is higher than the Kashmir valley average (170), while there are less number of schools in Ganderbal, Kulgam, Shupiyan and Anantnag districts. The percentage share of occupied census houses which are used as schools/ colleges is higher than state (1.05%) and Kashmir valley average (0.86%) in Baramula and Kupwara districts. There are fewer occupied census houses used as Schools /colleges in Srinager (0.57%), Anantnag (0.69%),and Pulwama (0.70%) districts.

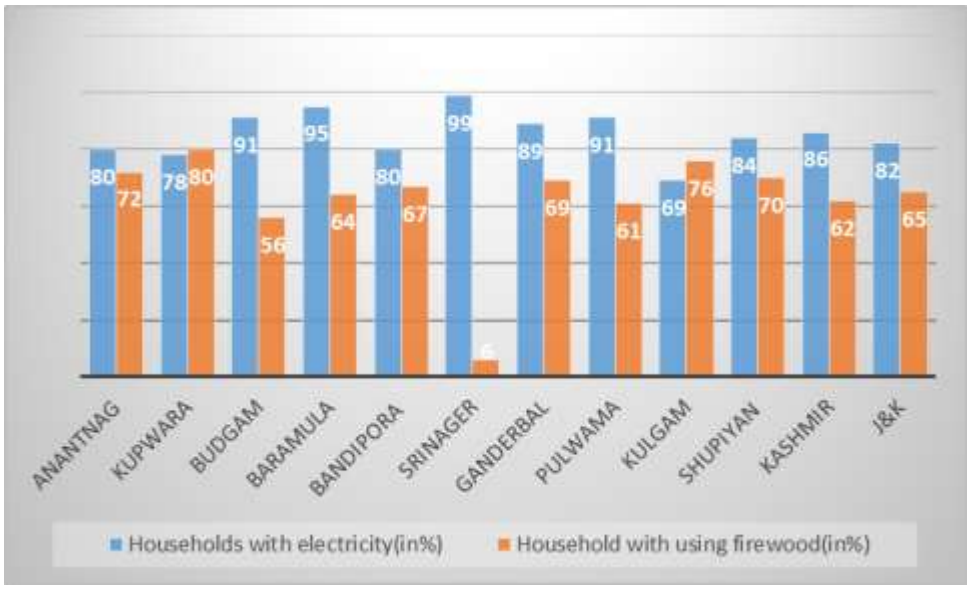
Fig3: Percentage Share of Households with Latrine and Percentage Share of Households with Treated Drinking Water (2011).



Source: Census of India (Primary census Abstract) 2011

The availability of drinking water, latrine facilities and the quality of sanitation in households are the key elements which determine household amenities. In the districts of Kulgam and Kupwara the percentage of houses with latrines is lower than the state average(51%) and Kashmir valley average(70%).The percentage of households having access to treated drinking water is higher than state (28%) and Kashmir valley average(32%) in the Srinagar, Ganderbal, Baramula districts. On the other hand, Kupwara, Kulgam and Bandipora districts have fewer percentages of households with treated drinking water. It can be concluded that policy makers and social scientists of the Jammu and Kashmir has not given considerable attention in terms of drinking water and toilet facilities in the Kupwara, Kugam, and Bandipora districts.

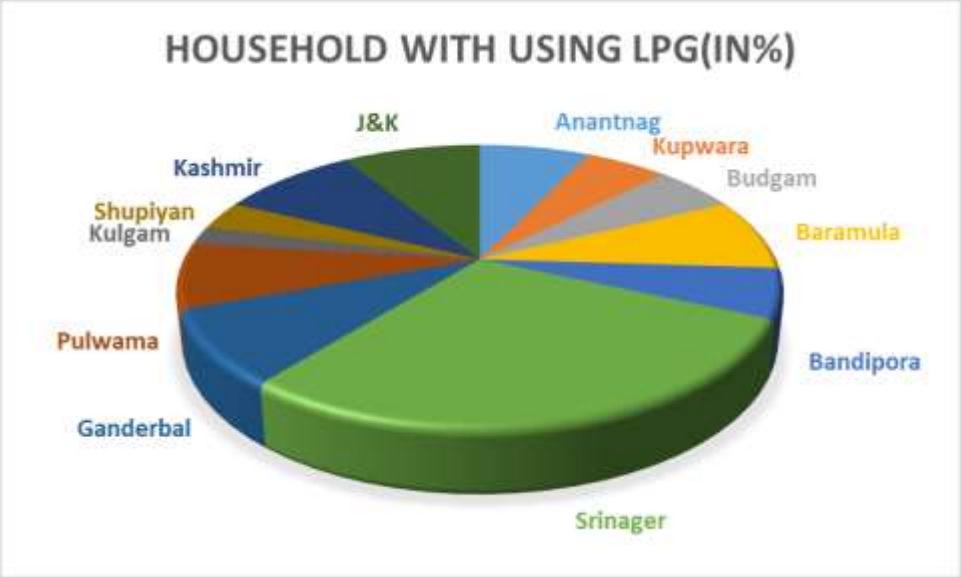
Fig4: Percentage Share of Households with Latrine and Percentage Share of Households with Treated Drinking Water (2011).



Source: Census of India (Primary census Abstract) 2011

The sustainable availability of energy resources drives the economic productivity and is central to the operation of any modern economy for economic development. Though, Kashmir valley has been a potential power of electricity generation. The percentage share of households with electricity in the districts of Kupwara, Bandipora, Kulgam, and Anantnag is lower than the State (82%) and Kashmir valley (86%) average. While in Srinagar, Baramula, Badgam, Pulwama and Ganderbal districts have higher percentage of households with electricity supply. Households which are using firewood on a daily basis are high in number in Anantnag, Kulgam, Bandipora and districts. The reason is that these districts are close to the forests and far from urban areas. The percentage share of households using firewood are lower than the state(65%) and Kashmir valley (62%) average in the districts of Srinagar, Badgam and Pulwama and thus electricity is the main energy consumption in these districts.

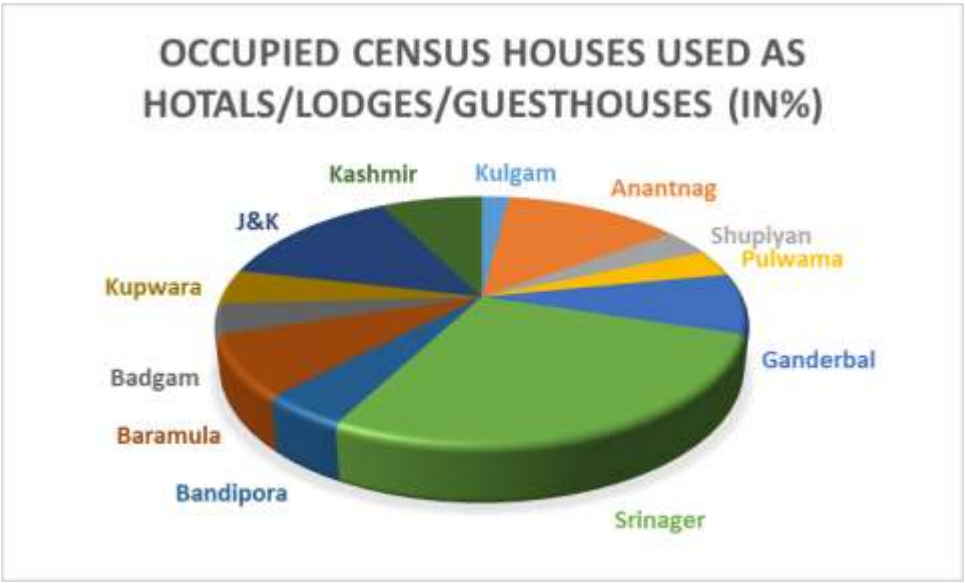
Fig5: Percentage Share of Households with using LPG/NPG (2011).



Source: Census of India (Primary census Abstract)2011.

The important source of energy is LPG/NPG.As compared to rural residents; it is predominantly used by urban residents. In the Srinagar district, the percentage share of households using LPG\NPG is greater than state and Kashmir valley (25%) average. While there is low usage of LPG\NPG in other districts of Kashmir valley. The people used firewood as main fuel for cooking purposes particularly in rural forested regions on a daily basis in Kashmir Valley.

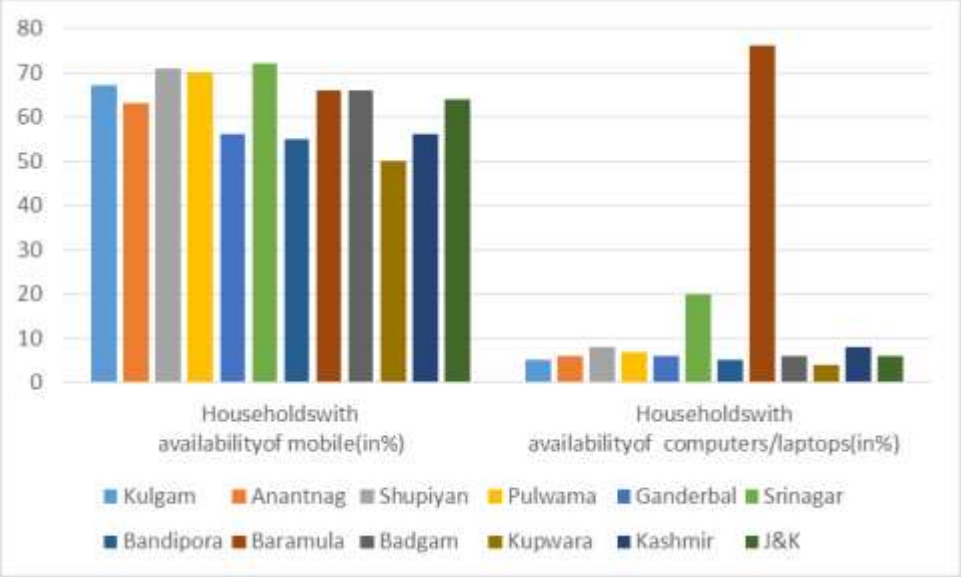
Fig4: Percentage Share of occupied census houses used as shops/offices and Percentage share of occupied census Houses used as Hotel /Lodge/Guest Houses (2011).



Source: Census of India (Primary census Abstract) 2011.

The Kashmir valley's urban areas are the primary location for commercial assets such as shops, hotels, lodges etc. Compared to the state average (9%) and Kashmir valley average (11%) the Srinagar district has the higher percentage of occupied census houses used as shops/offices. Whereas Bandipora and Kulgam districts have lower per-centage of occupied census houses used as shops/offices than the State and Kashmir valley average. The Percentage share of occupied census houses used as Hotels/Lodges/Guest Houses etc. are higher than State(0.15%) and Kashmir valley(0.28%) in Srinager, Anantnag, Baramulla and Ganderbal districts .This is due to the fact that ,tourism is the main cause for concentration of commercial assets in these districts.

Fig7: Percentage Share of Households with availability of Mobile phones and computers/Laptops. (2011).

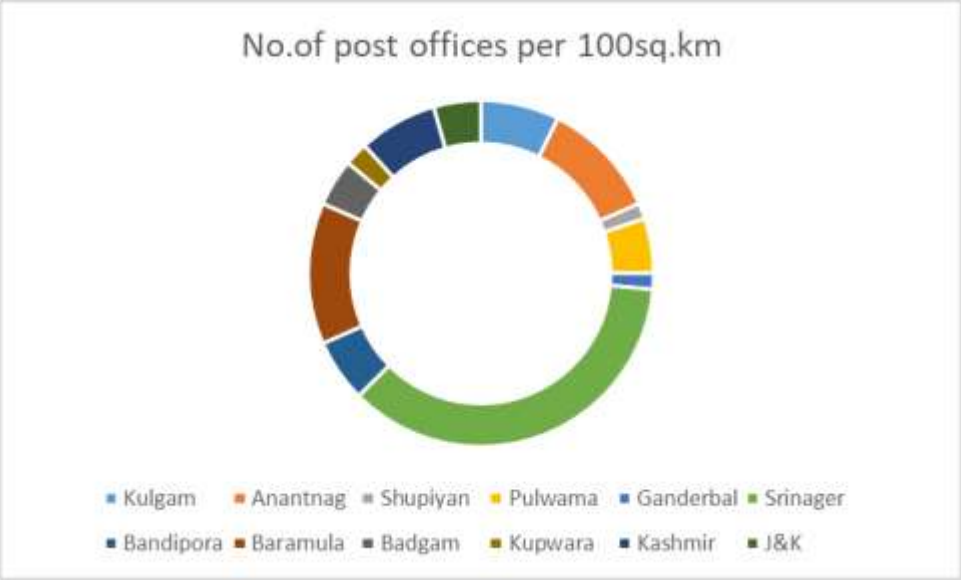


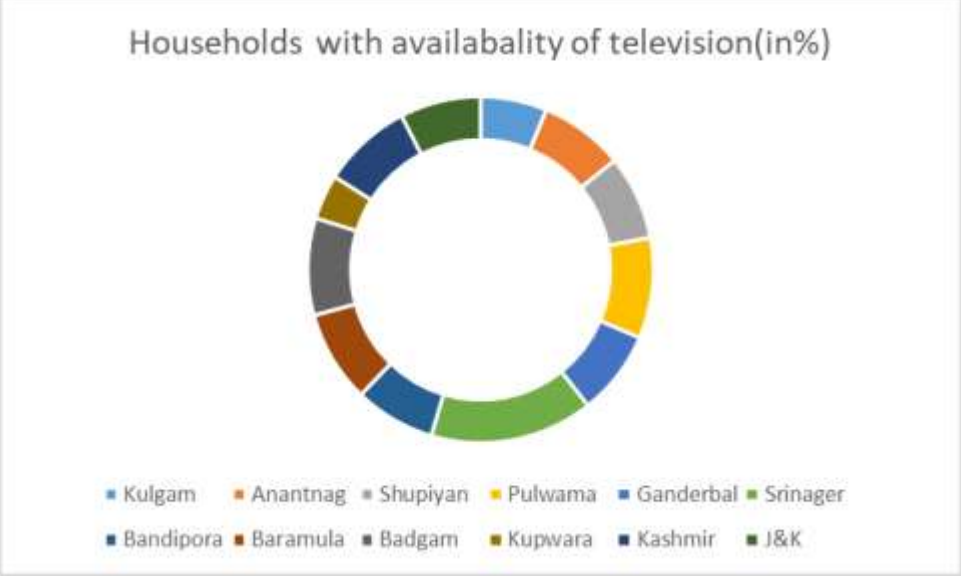
Source: Census of India (Primary census Abstract) 2011.

The percentage share of households in Bandipora and Kupwara districts that have access to mobile phones is lower than the state average(64%) and Kashmir valley average(56%).While percentage share of households with availability of mobile phones in Srinagar, Badgam, Shupiyan, Kulgam, Baramula and Pulwama districts are higher than the state and Kashmir valley average. The percentage share of

households with availability of computer/Laptop are higher than the State (6%) and Kashmir valley(8%) average in the Srinagar district. This is because that it is the educational, administrative, commercial and tourism hub of the Kashmir Valley.

Fig8: Post offices per 100sq.km (2011-12) and Percentage share of Households with availability of Television (2011)





Source: Census of India (Primary census Abstract) 2011

The crucial and important component of communication technology is the postal network and television. In the Srinager, Baramula and Anantnag districts ,there are more post offices per 100 sq km than the state(6%) and Kashmir Valley average (10).As these districts are highly urbanized in the Kashmir valley. On the other hand Kupwara, Shuypian and Ganderbal districts have lower percentage of post offices per 100 sq. km than the State and Kashmir valley average. The proportion of households with access to television is more in Srinagar, Baramulla and Pulwama districts than the State (45%) and Kashmir valley(50%) average. Whereas percentage share of households with availability of television is lower in Kupwara, Kulgam and Bandipora districts than the State average and Kashmir Valley average.

6. Conclusion

The Kashmir Valley has enormous growth potential due to its natural resources. The results shows that there are shortage of schools, hospitals, electricity, toilets, and drinking water facilities in the districts of Kupwara, Ganderbal, Bandipora and Kulgam districts. The Study also shows that post offices, availability of mobile phones, television etc is also poor in these four districts compared to other remaining districts of the Kashmir Valley. The Social infrastructure services are not up to the standard norm of urban and regional planning in these districts. The locational disadvantage, terrorism, inadequate Infrastructure, and poor governance are prominent reasons for the lack of proper social infrastructure services. There should be precise governance system in the insurgent and least developed districts in order to establish peace and tranquillity. No form of Social, economic or cultural progress is possible without having peace in this region. There is needed to make districts and regional planning Strategies in order to address the issues of development in the Kashmir valley. Decentralization planning strategy is supposed to be formulated and implemented inclusively and sustainably considering all people.

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