

Spatial Analysis of Amenities in North Kashmir of Jammu and Kashmir

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ABSTRACT

Amenities comprise the infrastructure, goods and services that are collectively needed for the both rural and urban society. These are central to urban society without which these societies cannot emerge and sustain. There is uneven distribution of the different amenities particularly in the developing countries. North Kashmir also shows significant unevenness in the provision of planning. The analysis of the data reveals that there is complete disparity in the distribution of health care institutions and ration depots in different parts of North Kashmir. Twenty three blocks in which 2667 Ration depot and 450 Health care Institutions of North Kashmir. The Weightage method has been used to identify gaps in North Kashmir given to different facilities as per their standard numbers weightage has been given to different facilities as per their standard and number. The amenities generally decrease from the core of the city to its peripheries. Therefore it becomes imperative to find a sustainable solution for the provision of adequate and balanced amenities and their optimum utilization.

Key Words : Amenities, Core, Periphery, Spatial, Optimum Utilization

INTRODUCTION

Development is basically a human enterprise and therefore it requires combined efforts of all systems of knowledge, be physical, biological, social, human to comprehend and articulate it (Mishra, 1983). Availability of infrastructural facilities of an area plays an important role in the overall development of an area. Available infrastructure of an area will play an important role in the planning process. The process of integrated approach to planning requires detailed knowledge of the interrelations and inter dependencies between various sectors to resolve often conflicting requirements and available infrastructure of the region. Therefore an attempt is made to analyse the available health care institutions and ration store in the North Kashmir region. Inequalities in access to social infrastructures may be as a result of inefficiency in the distribution and

allocation of facilities between areas or as a result of social barriers like ethnicity, religion or status which may directly limit certain groups from having access to public facilities. This is a prominent characteristic of a capitalist economy (Stevenson, 2004). The spatial variation in availability and access to infrastructure result in spatial disparities in living standards both within and between regions and localities (Madu, 2007). Knowledge of the nature and pattern of distribution of existing facilities in any region is needed before we make any attempt to project and plan their future development.

Objectives:

- To analyze the spatial distributional pattern of health care institutions and ration stores in North Kashmir.
- To examine and analyze the magnitude of spatial concentration and disparity in the provision of health care facility and ration stores in the North Kashmir.

METHODOLOGY

Study area:

North Kashmir is a part of Greater Kashmir Himalayas lies between 34°16'– 34° 40' North Latitude and 73°45'– 75° 35' East Longitude. The North Kashmir range have average altitude of 2400 meters and covers an area 5110.60 sq. Kms. North Kashmir Himalayas takes turn towards south west Zojila to Baramulla. It acts as water divide between Jhelum in Kashmir Valley and Kishanganga Raza *et al.* (1978) (Fig. 1).

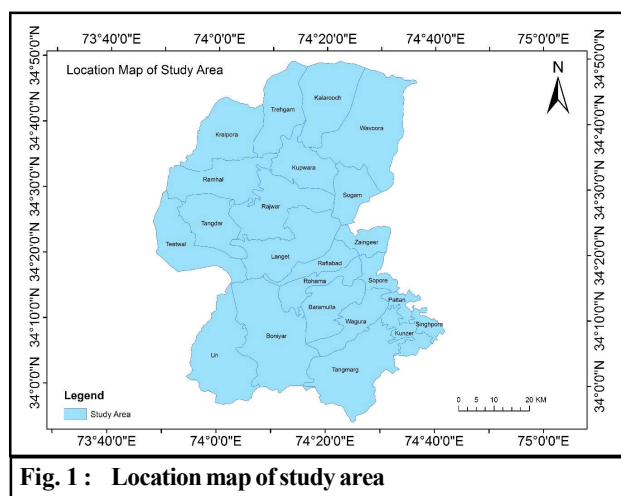


Fig. 1 : Location map of study area

Data Base :

The base map was generated by using S.O.I. Topo sheet scale 1:50000. Data pertaining to various socio-economic variables like total population of the study area, its block wise distribution, location and strength of different amenities etc. have been gathered accordingly from various departments. The data on population and its various attributes was obtained from Census Department. Data for health care institutions and ration stores was gathered from different government departments. The data collected from different sources has been treated statistically by using the appropriate methods of determining the spatial distribution, spatial concentration and disparity. The statistical technique which was used are: Location Quotient and Lorenz Curve.

$$L.Q. = \frac{\frac{n_i}{P}}{\frac{N_i}{P}}$$

n_i = number of facility (i) in a given block

P = population of a given block

N_i = Number of facility in North Kashmir

P = Total population of North Kashmir.

RESULTS AND DISCUSSION

Spatial variation:

Proper and even distribution of health care institutions is vital for the development of any region as it is intimately related to the nature and welfare of better human resource. Similarly the ration stores are important for ensuring the food security. The distribution of health care institutions and ration stores in North Kashmir is presented in the Table 1. Wide variation is observed in the availability of health care establishments and ration stores across the Blocks. Baramulla and Boniyar is largest health care institutions. Large number of ration stores are found in Singhpora and Langet, followed by Baramulla, Rajwara and Tanghadar have least number of ration stores. Such

Table 1 : Distribution of Public Facilities in North Kashmir

| Name of Block | Area in Sq .km | Population | Ration Depot | Health care institution |
|---------------|----------------|------------|--------------|-------------------------|
| Zaingeer | 95.14 | 99511 | 64 | 31 |
| Sopore | 74.95 | 130596 | 71 | 15 |
| Rafiabad | 55.44 | 42750 | 129 | 13 |
| Pattan | 93.61 | 106292 | 164 | 16 |
| Rohama | 57.89 | 49889 | 82 | 16 |
| Kunzer | 72.02 | 72250 | 144 | 22 |
| Singhpora | 60.24 | 78897 | 191 | 22 |
| Baramulla | 105.2 | 150986 | 168 | 28 |
| Wagura | 101.34 | 78998 | 119 | 26 |
| Boniyar | 92.45 | 67494 | 124 | 29 |
| Uri | 163.2 | 70571 | 104 | 20 |
| Tangmarg | 67 | 59805 | 137 | 23 |
| Tanghdar | 31.67 | 34348 | 10 | 1 |
| Teetwal | 38.22 | 25781 | 39 | 7 |
| Kupwara | 85.5 | 163818 | 150 | 33 |
| Trehgam | 44.56 | 78321 | 105 | 8 |
| Kralpora | 60.09 | 111063 | 142 | 27 |
| Sogam | 49.03 | 83169 | 90 | 11 |
| Wavoor | 37.25 | 62363 | 46 | 6 |
| Kalaroose | 39.28 | 58169 | 41 | 6 |
| Ramhal | 44.8 | 51813 | 85 | 17 |
| Rajwar | 96.93 | 77473 | 172 | 29 |
| Langet | 123.36 | 124036 | 290 | 44 |
| Total | 1689.17 | 1878393 | 2667 | 450 |

Source: Consumer Affairs and Public Distribution (CAPD) Department, J&K.

SPIATIAL ANALYSIS OF AMENITIES IN NORTH KASHMIR OF JAMMU AND KASHMIR

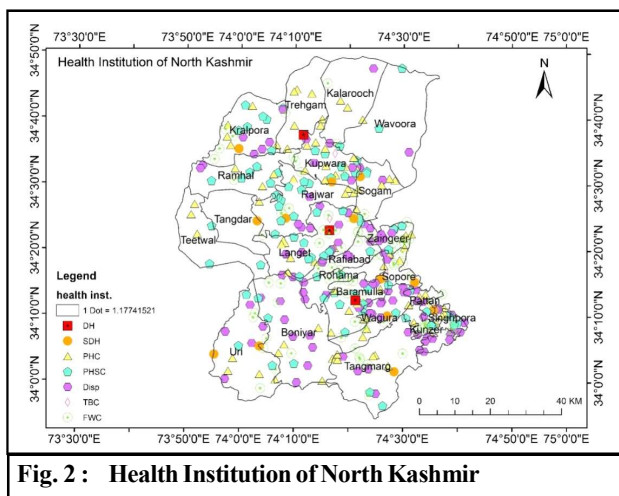


Fig. 2 : Health Institution of North Kashmir

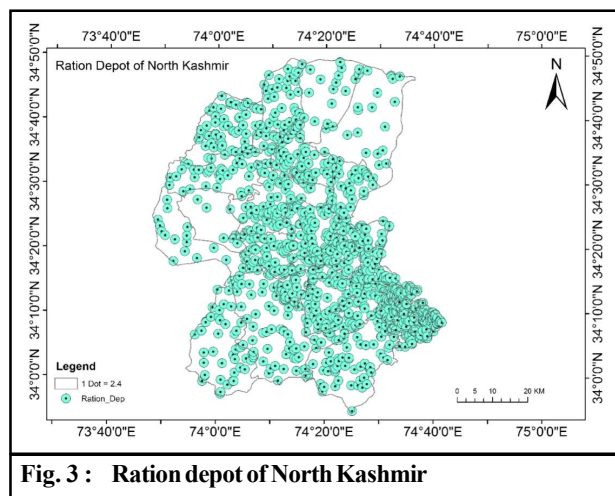


Fig. 3 : Ration depot of North Kashmir

variations indicate that the distribution of public facilities across blocks is not proportional to the distribution of population (Fig. 2 and 3).

Spatial concentration:

Location Quotient gives us an idea about the relative

position of particular facilities in particular block. The analysis reveals that the level of concentration of these facilities varies quite significantly across the blocks in the North Kashmir. This means that considerable disparity exists among the blocks in terms of different facilities in order to have an idea about the degree of spatial disparity

Table 2 : Block wise Analysis of Health Care Institutions and Ration Stores in North Kashmir

| Blocks | Population | Percentage of population | Ration Depot | Percentage of Depot | Health Care Institution | Percentage of Healthcare Institution | Location Quotient of RD | Location Quotient of HCI |
|-----------|------------|--------------------------|--------------|---------------------|-------------------------|--------------------------------------|-------------------------|--------------------------|
| Zaingeer | 99511 | 5.3 | 64 | 2.39 | 31 | 6.88 | 0.42 | 1.5 |
| Sopore | 130596 | 7 | 71 | 2.66 | 15 | 3.33 | 0.35 | 0.5 |
| Rafiabad | 42750 | 2.3 | 129 | 4.83 | 13 | 2.88 | 2.14 | 1.5 |
| Pattan | 106292 | 5.6 | 164 | 6.14 | 16 | 3.55 | 1.07 | 0.5 |
| Rohama | 49889 | 2.6 | 82 | 3.07 | 16 | 3.55 | 1.14 | 1.5 |
| Kunzer | 72250 | 3.8 | 144 | 5.39 | 22 | 4.88 | 1.35 | 1.5 |
| Singhpora | 78897 | 4.2 | 191 | 7.16 | 22 | 4.88 | 1.85 | 1 |
| Baramulla | 150986 | 8.03 | 168 | 6.29 | 28 | 6.22 | 0.78 | 0.5 |
| Wagura | 78998 | 4.20 | 119 | 4.46 | 26 | 5.77 | 1.07 | 1.5 |
| Boniyar | 67494 | 3.6 | 124 | 4.64 | 29 | 6.44 | 1.28 | 2 |
| Uri | 70571 | 3.76 | 104 | 3.89 | 20 | 4.44 | 1 | 1 |
| Tangmarg | 59805 | 3.18 | 137 | 5.13 | 23 | 5.11 | 1.57 | 1.5 |
| Tanghdar | 34348 | 1.82 | 10 | 0.37 | 1 | 0.22 | 0.02 | 0.1 |
| Teetwal | 25781 | 1.37 | 39 | 1.46 | 7 | 1.55 | 1.07 | 1 |
| Kupwara | 163818 | 9 | 150 | 5.62 | 33 | 7.33 | 0.64 | 1 |
| Trehgam | 78321 | 4.2 | 105 | 3.39 | 8 | 1.77 | 0.92 | 0.5 |
| Kralpora | 111063 | 6 | 142 | 5.32 | 27 | 6 | 0.85 | 1 |
| Sogam | 83169 | 4.42 | 90 | 3.37 | 11 | 2.44 | 0.17 | 1 |
| Wavoora | 62363 | 3.32 | 46 | 1.72 | 6 | 1.33 | 0.5 | 0.45 |
| Kalaroose | 58169 | 2.8 | 41 | 0.01 | 6 | 1.33 | 0.5 | 0.05 |
| Ramhal | 51813 | 2.7 | 85 | 3.18 | 17 | 3.77 | 1.14 | 1.5 |
| Rajwar | 77473 | 4.12 | 172 | 6.44 | 29 | 6.44 | 1.57 | 1.5 |
| Langet | 124036 | 6.6 | 290 | 10.8 | 44 | 9.77 | 1.64 | 1.5 |
| Total | 1878393 | 100 | 2667 | 100 | 393 | 100 | | |

Source: Consumer Affairs and Public Distribution (CAPD) Department, J&K.

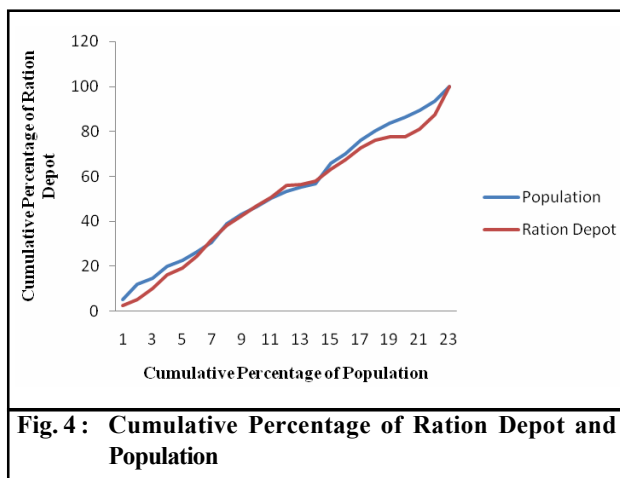


Fig. 4 : Cumulative Percentage of Ration Depot and Population

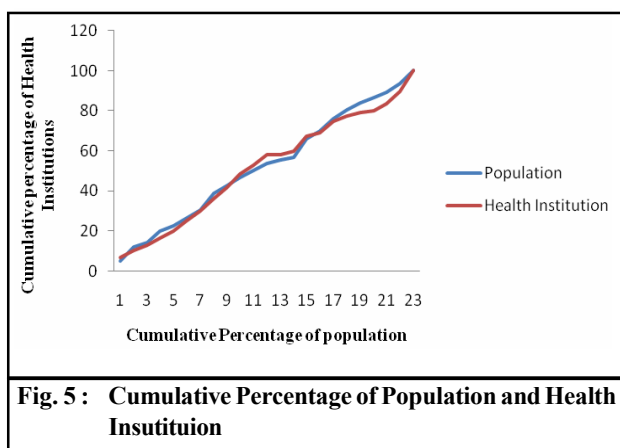


Fig. 5 : Cumulative Percentage of Population and Health Insutiuion

with respect to these facilities, a special type of cumulative frequency graph was employed. If the curve is close to the Line of equality, it indicates least disparity and the more it deviates from it, the more is the disparity (Table 2; Fig. 4 and 5).

Identification of Gaps:

The Weightage method has been used to identify gaps in North Kashmir given to different facilities as per their standard numbers weightage has been given to different facilities. The total number of facilities in each block has been multiplied by the number obtained by dividing the aggregate number of all kinds of facilities by total number of each facility. The individual weighted scores of different facilities of a block were added together to get total weighted score of each block (Table 3 and Fig. 6).

On the basis of aggregated weightage the study area

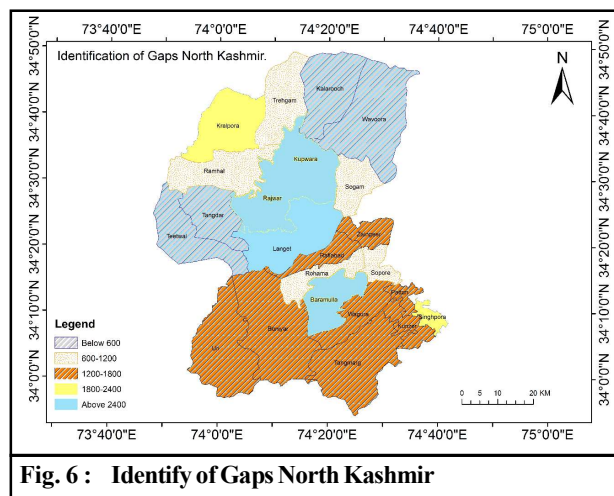


Fig. 6 : Identify of Gaps North Kashmir

is divided into five classes. This map clearly shows us that four blocks namely Baramulla, Langet, Rajwar and Kupwara enjoy highest share of above mentioned facilities followed by Singhpora, Kunzer, Pattan, Wagura, Tangmarg, Boniyarand Kralpora. Blocks which fall into

Table 3 : Weighted Scores of all Blocks of North Kashmir

| Name of Block | Ration Depot | Health care institution | Aggregate Weightage Score |
|---------------|--------------|-------------------------|---------------------------|
| Zaingeer | 64 | 31 | 1488.53 |
| Sopore | 71 | 15 | 960.45 |
| Rafiabad | 129 | 13 | 1237.19 |
| Pattan | 164 | 16 | 1554.08 |
| Rohama | 82 | 16 | 1062.08 |
| Kunzer | 144 | 22 | 1647.86 |
| Singhpora | 191 | 22 | 1929.86 |
| Baramulla | 168 | 28 | 2005.64 |
| Wagura | 119 | 26 | 1640.38 |
| Boniyar | 124 | 29 | 1777.27 |
| Uri | 104 | 20 | 1336.6 |
| Tangmarg | 137 | 23 | 1641.49 |
| Tanghdar | 10 | 1 | 95.63 |
| Teetwal | 39 | 7 | 483.41 |
| Kupwara | 150 | 33 | 2075.79 |
| Trehgam | 105 | 8 | 915.04 |
| Kralpora | 142 | 27 | 1814.01 |
| Sogam | 90 | 11 | 931.93 |
| Wavoor | 46 | 6 | 489.78 |
| Kalaroose | 41 | 6 | 459.78 |
| Ramhal | 85 | 17 | 1115.71 |
| Rajwar | 172 | 29 | 2065.27 |
| Langet | 290 | 44 | 3307.72 |
| Total | 2667 | 450 | |

Source: Author

the category of 1000-1500 are Uri, Rohama, Rafiabad, Zaingeer and Ramhal while as Sopore, Sogam, and Trehgam fall into the category of 500-1000. Teetwal, Tanghdar, Kalarooch and Wawoor area with least facilities present in the study area.

Conclusion:

The analysis of the distribution of public block amenities as presented above indicates that there is a relationship among different blocks in terms of the facilities. Some blocks are more developed in terms of a particular facility while others lag far behind, the level of development of the North Kashmir in terms of that facility. The varying degrees of concentration and dispersion of different types of public facilities indicate that the existing planning efforts could not produce satisfactory results in terms of balanced development of different parts of the North Kashmir. It is now expected that the population of North Kashmir will increase quite significantly during the next decade therefore by multiplying the need for different types of public facilities. Since most of these facilities will be provided by the government, their availability and distribution must be planned according to needs of the people.

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