

Regional Disparities in Socio-Economic Development – A Statistical Evaluation of Kashmir Valley, J&K

TAWHEED YOUSUF*

Department of Economics
University of Kashmir, Srinagar (J&K)
India

TAWSEEF YOUSUF

Department of Geography and Regional Development
University of Kashmir, Srinagar (J&K)
India

T.A.RAJA

Division Agricultural Statistics
Sher-e-Kashmir University of Agricultural Science and Technology
Kashmir, Srinagar (J&K)
India

Abstract:

The problem of regional disparities in the levels of social and economic development is a universal phenomenon. Regional disparities in any region may be natural due to unequal distribution of natural resources and/or man-made in the sense of the neglect of some regions and preference for others for development and infrastructural facilities. In this backdrop, the development of newly formed 10 districts of Kashmir valley with respect to thirteen development indicators was evaluated on the basis of an Evaluation Index. The level of development was examined for core sectors. Wide gap in the level of development was observed. Among 10 districts, the districts which stood best in agricultural sector were Anantnag and Baramulla with a combined rank of 1.5 whereas Srinagar stood last in agricultural sector with overall rank of 10 showing worst of results in agricultural sector. In Socio-Infrastructural sector, the district standing best was Srinagar with an overall rank of 2.22 and Ganderbal with an overall ranking of 8.11 showed poorest

* Corresponding author: dadootawheed@gmail.com

performance. Similarly in industrial sector Srinagar stood best with an overall rank of 1 whereas Ganderbal stood last in industrial sector as well with an overall ranking of 9.75. A mean rank for all districts was obtained based on the individual rankings for each district. District Srinagar with a mean rank of 3.23 was followed by Anantnag with a mean rank of 3.30 whereas Ganderbal showed dismal performance with a mean rank of 7.92. This analysis can serve as a helpful resource in policy advocacy, with the aim of influencing changes to positively affect the socio-economic development in the study area. Levels of Socio-Economic Development have been represented using ArcGIS software. The study concluded with the various policy suggestions, put forward to eradicate the wide spatial disparities observed in the study.

Key words: Socio-economic development, Evaluation index, Developmental indicators, Regional disparities, Kashmir valley

Introduction

In India five year plans, starting from 1951 are being settled with the main objective of enhancing the quality of life of people by providing the basic necessities as well as improving their social and economic well-being. The agricultural sector has risen steadily and commendable progress in industrial front have certainly increased the total production in agriculture and manufactured goods, but there is no indication that these activities have been able to narrow down the level variation in terms of development within different regions/states/areas. Further there is growing interest among the masses to change their social and economic status. To focus the attention of policy makers, scientists, planners, policy makers and administrators on the problems of estimation of level of development, a seminar was organized jointly by Planning Commission, Government of India and State Planning Institute, Government of Uttar Pradesh during April 1982. A series of research investigations were calculated by the Indian Society of Agricultural Statistics, New Delhi. The level of socio-economic development was estimated for different states for the year

1971-72 and 1981-82 by Narain et al. (1991). The study revealed that there were wide disparities in the level of development among different states. To take the analysis to a deeper level on the estimation of level of development, district level estimation was analyzed in 1991-92 e.g. Orissa (Narain et al. 1992, 1993), Andhra Pradesh (Narain et al. 1994), Orissa (Narain et al. 2005), Jammu and Kashmir (Narain et al. 2005). The analysis was done for several other states as well in various years on same grounds and it was found that entire parts of low developed districts are not backward but there are some parts which are also better developed. In addition to these studies various other studies were done where the researchers tried to provide various dimensions to the concept of development, few worth mentioning being Parihar, H. P. S and S. Srivastava (2003) "Statistical measures of development for an ideal village." *Indian Journal of Extension Education* 3:100-103, in which they proposed indicators of development for an ideal village. Another is Rangacharyulu's (1993) attempt to work out composite index of development in the country for rural areas at state level based on a given set of indicators. Similarly, Abhiman Das (1999) worked out that economic growth in the sense of expanding GDP and other related variables is one of the most fundamental input to the overall development. One more analysis was done by Dutta and Choudhary (1995) wherein they concluded that analysis of data at disaggregated form narrows down the variability and enables better identification of special characteristics.

Study Area

The longitudinal and latitudinal extent of Kashmir valley of Jammu & Kashmir state is from 73° 55' E and 75° 35' E, and 35° 25' N and 34° 45' N. The Valley of Kashmir is the Northwestern region of the Indian Sub-Continent, bestowed with a unique geographical setting. It is shaped as a synclinal

basin between the Karakoram and the Pir Panjal Range, located approximately 1730 m above the sea level and is around 135 km long and 32 km wide, formed by the Jhelum River. Kashmir Valley is one of the three administrative divisions in Jammu and Kashmir State and consists of Anantnag, Baramulla, Budgam, Bandipora, Ganderbal, Kupwara, Kulgam, Pulwama, Shopian and Srinagar districts. Kashmir's economy is centered on agriculture. Traditionally the staple crop of the valley was rice, which formed the chief food of the people. In addition, Indian corn, wheat, barley and oats were also grown. The state of J&K recorded a population of nearly 12.5 million people & the Kashmir Valley of around 7 million people (Census of India, 2011).

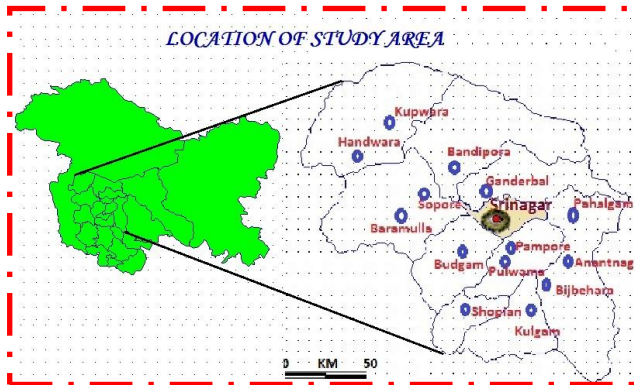


Figure : 1 Showing Location of Study Area

Objectives

The present study is a district level analysis of Kashmir valley which throws light on the association of development in different sectors of economy in newly formed ten districts of Kashmir valley. The improvements needed in different indicators for enhancing the level of development are suggested. In the present study, the level of development is estimated separately for agricultural sector, industrial sector, infrastructural facilities and overall socio-economic field. It was felt to analyze the level of development at district level since

there has been a growing consensus about the need of district level planning in the country. Knowledge of level of development at district level will help identifying where a given district stands in relation to others.

Development Indicators

The magnitude of development can't be analyzed fully by any single indicator. Moreover, a number of indicators when analyzed individually don't provide an integrated and easily comprehensible picture of reality. Hence there is need for building up an Evaluation index of development based on optimum combination of various developmental indicators. Each district faces situation factors of development unique to it as well as common administrative and financial factors. Indicators common to all the districts have been included in the analysis for evaluating the level of development. Composite indices have been obtained for different districts by using the data on the following developmental indicators.

1. Net Sown Area
2. Area Irrigated
3. Density of Population
4. Loans Sanctioned Under Self-Employment Programme
5. Number of Bank Branches
6. Per Capita Deposits in Banks
7. Length of Roads Under PWD
8. Urban Population as %age of Total Population
9. Number of Post and Telegraph Offices
10. Sex-Ratio
11. Literacy Rate
12. Number of SSI Units
13. Number of Handicraft & Handloom Cooperatives

A total of thirteen developmental indicators have been included in the analysis. These indicators may not form an all-inclusive list but these are the major interacting components of

development. Out of twelve indicators, two are directly related to development of agricultural sector. Two indicators depict the progress of development in industrial sector while nine indicators describe the availability of socio- infrastructural facilities in different districts of Kashmir valley.

Database & Methodology

Evaluation of the stated problem in this investigation requires a huge data from secondary sources. The secondary data pertaining to socio-economic indicators of the region have been obtained from different government offices and agencies. Apart from this, methods used for the collection of data included documentation and archival records from Digest of Statistics (2010-11) and Economic Survey (2009-10) published by Directorate of Economics & Statistics, Planning & Development, Government of Jammu and Kashmir. Levels of Socio-Economic Development have been represented using ArcGIS software.

Evaluation Index: The present evaluation is based upon an evaluation index (Ei) calculated for each development indicator which is calculated by following formula.

$$Ei = \frac{A-B}{c} * 10 + 100$$

Where,

A = Value of a particular development indicator for a particular district

B = Mean value of a particular development indicator for all districts

C = Standard Deviation of a development indicator for all districts

10 = Standard Unit

100 = Fixed Value

Evaluation index values were calculated for each development indicator. Development indicators which scored 100 or above 100 (> 100) were considered to possess greater economic development. The Evaluation Index findings have been drafted

into tables wherein the district standing best in each developmental indicator has been highlighted by bold letters in black whereas the district standing worst in each developmental indicator has been highlighted by bold *Italic* letters.

Districts	Agricultural Sector		Industrial Sector	
	Net Sown Area	Area Irrigated	Number of SSI Units	Number of Handicraft & Handloom Cooperatives
Anantnag	109.24	113.53	105.18	99.82
Kulgam	98.30	101.53	91.11	92.04
Pulwama	100.08	102.22	100.12	98.54
Shopian	92.74	92.87	91.00	90.30
Srinagar	83.93	82.06	124.47	127.79
Ganderbal	89.73	90.19	91.07	98.78
Budgam	93.48	110.95	104.53	103.65
Baramulla	118.90	111.13	104.74	98.49
Bandipora	93.48	91.16	91.00	93.50
Kupwara	108.08	104.32	96.73	97.04

Table 1:- Evaluation Index Findings on Agricultural Sector & Industrial Sector In Kashmir (2011)

Source : Computed by authors

Districts	Density of Population	SEP Loans	Number of Bank Branches	Per capita Deposits in Banks (Rs)	Road Length Under PWD	Urban Population As %age of Total Population	Number of Post and Telegraph Offices	Sex-Ratio	Literacy Rate
Anantnag	93.23	101.44	103.24	97.88	93.43	100.96	120.34	110.14	102.45
Kulgam	94.30	97.24	94.19	95.83	94.12	98.11	94.25	114.10	92.64
Pulwama	98.86	94.21	96.20	97.94	95.68	96.17	100.63	103.34	104.09
Shopian	110.44	98.50	91.43	96.26	116.76	92.96	85.09	114.10	97.94
Srinagar	117.66	128.07	124.84	129.79	108.76	129.40	101.74	93.42	119.29
Ganderbal	89.06	92.06	92.93	97.50	88.51	96.93	88.42	90.87	91.81
Budgam	99.75	101.27	96.70	95.62	107.51	95.36	98.41	95.69	87.89
Baramulla	88.84	95.34	110.52	98.64	90.05	97.49	112.85	92.01	108.82
Bandipora	114.51	91.05	91.18	95.47	113.66	97.37	95.64	102.77	86.49
Kupwara	93.30	100.72	98.71	95.04	91.50	95.20	102.58	83.51	108.79

Table 2:- Evaluation Index Findings on Socio-Infrastructural Sector

in Kashmir Valley

Source: Computed by authors

Ranking Method

Based on the Evaluation Index, at first each district is allotted individual ranks based on different developmental indicators along with overall ranking for each sector as well and secondly mean rank of all districts is calculated based on their individual ranks in different developmental indicators. The minimum mean rank is regarded as best followed by the increasing order of preference. The top two districts in each developmental indicator have been highlighted by bold letters in whereas the bottom two districts in each developmental indicator have been highlighted by bold *Italic* letters.

Rank	Net Area Sown (Hectares)	Rank	Area Irrigated (Hectares)	Districts	Overall Rank in AgriculturalSector
1	Baramulla	1	Anantnag	Anantnag	1.5
2	Anantnag	2	Baramulla	Baramulla	1.5
3	Kupwara	3	Budgam	Kupwara	3.5
4	Pulwama	4	Kupwara	Pulwama	4.5
5	Kulgam	5	Pulwama	Budgam	4.75
6.5	Budgam	6	Kulgam	Kulgam	5.5
6.5	Bandipora	7	Shopian	Bandipora	7.25
8	Shopian	8	Bandipora	Shopian	7.5
9	<i>Ganderbal</i>	9	<i>Ganderbal</i>	<i>Ganderbal</i>	9
10	<i>Srinagar</i>	10	<i>Srinagar</i>	<i>Srinagar</i>	10

Table 3:-Ranking of Districts Based On Their Performance in Agricultural Sector

Source: Computed by authors

Rank	Density of Population	Loans Under SEP	Bank Branches	Per Capita Deposits In Banks	Road Length Under PWD	%age of Urban Population	No of Post Offices	Sex-Ratio	Literacy Rate
1	Srinagar	Srinagar	Srinagar	Srinagar	Shopian	Srinagar	Anantnag	Kulgam ^{1.5}	Srinagar
2	Bandipora	Anantnag	Baramulla	Baramulla	Bandipora	Anantnag	Baramulla	Shopian ^{1.5}	Baramulla
3	Shopian	Budgam	Anantnag	Pulwama	Srinagar	Kulgam	Kupwara	Anantnag	Kupwara
4	Budgam	Kupwara	Kupwara	Anantnag	Budgam	Baramulla	Srinagar	Pulwama	Pulwama
5	Pulwama	Shopian	Budgam	Ganderbal	Pulwama	Bandipora	Pulwama	Bandipora	Anantnag
6	Kulgam	Kulgam	Pulwama	Shopian	Kulgam	Ganderbal	Budgam	Budgam	Shopian
7	Kupwara	Baramulla	Kulgam	Kulgam	Anantnag	Pulwama	Bandipora	Srinagar	Kulgam
8	Anantnag	Pulwama	Ganderbal	Budgam	Kupwara	Budgam	Kulgam	Baramulla	Ganderbal
9	Ganderbal	Ganderbal	Shopian	Bandipora	Baramulla	Kupwara	Ganderbal	Ganderbal	Budgam
10	Baramulla	Bandipora	Bandipora	Kupwara	Ganderbal	Shopian	Shopian	Kupwara	Bandipora

Table 4:- Ranking of Districts Based On Their Performance in Socio-Infrastructural Sector

Source : Computed by authors

Combined Rank of 1.5 to Both of the Districts

Districts	Overall Rank in Socio- infrastructural Sector
Srinagar	2.22
Anantnag	3.88
Baramulla	5.11
Pulwama	5.22
Kulgam	5.72
Shopian	5.72
Budgam	5.88
Kupwara	6.44
Bandipora	6.66
Ganderbal	8.11

Table 5:- Overall Ranking in Socio-Infrastructural Sector

Source : Computed by authors

Rank	Number of SSI Units	Rank	Number of Handicraft and Handloom Cooperatives	Districts	Overall Rank in Industrial Sector
1	Srinagar	1	Srinagar	Srinagar	1
2	Anantnag	2	Budgam	Anantnag	2.5
3	Baramulla	3	Anantnag	Budgam	3
4	Budgam	4	Ganderbal	Baramulla	4.5
5	Pulwama	5	Pulwama	Pulwama	5

6	Kupwara	6	Baramulla	Ganderbal	6
7	Kulgam	7	Kupwara	Kupwara	6.5
8	Ganderbal	8	Bandipora	Kulgam	8
9.5	Bandipora	9	Kulgam	Bandipora	8.75
9.5	Shopian	10	Shopian	Ganderbal	9.75

Table 6:-Ranking of Districts Based On Their Performance in Industrial Sector

Source : Computed by authors

Levels of Socio-Economic Development in Kashmir Valley

Districts	Mean Rank
Srinagar	3.23
Anantnag	3.30
Baramulla	4.23
Pulwama	5.07
Budgam	5.26
Kupwara	6
Kulgam	6
Shopian	6.65
Bandipora	7.40
Ganderbal	7.92

Table 7:- Mean Rank of Districts Based on Evaluation Index

Source : Computed by authors

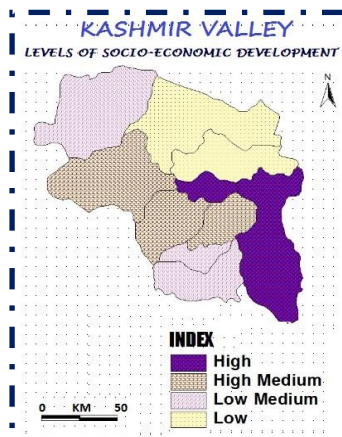


Figure 2: Levels of Socio-Economic Development

Results and Discussions

At first the overall ranking for different districts of development has been obtained for agricultural sector, socio-infrastructure sector and industrial sector using the evaluation index findings. Secondly the mean rank has been obtained for each district based on the ranking obtained by each district in each developmental indicator. The evaluation indices of development for above mentioned three sectors are given in the Table 1 and Table 2, and the rankings for different districts for separate developmental indicators are given in Table 3, Table 4, Table 5 and Table 6. And the mean ranking for overall development for each district is given in Table 7.

It may be seen from the ranking tables that in case of agricultural development, the district standing best in agricultural sector is Anantnag and Baramulla with combined rank of 1.5 followed by Kupwara with ranking of 3.5, whereas Srinagar stood last in agricultural sector with overall rank of 10 showing worst of results in agricultural sector (Table 3).

In Socio-Infrastructure sector, the district standing best is Srinagar with an overall rank of 2.22 followed by Anantnag with an overall rank of 3.88 whereas the district which stood last was Ganderbal with an overall ranking of 8.11 showing poorest performance in Kashmir valley (Table 5).

And in industrial sector Srinagar stood best with an overall rank of 1 followed by Anantnag with an overall ranking of 2.5 whereas Ganderbal stood last in industrial sector as well with an overall ranking of 9.75 (Table 6).

After obtaining mean rank for all districts based on the individual rankings for each district in each developmental indicator the results gave us a clear idea about the overall development of each district in Kashmir valley. By the method of mean ranking the district which stood best was Srinagar with a mean rank of 3.23 followed by Anantnag with a mean rank of 3.30 whereas the districts which showed dismal performance were Ganderbal and Bandipora with a mean rank

of 7.92 and 7.40, respectively (Table 7).

Conclusions and Suggestions

The broad conclusions emerging from the study are as follows:

With respect to overall socio-economic development, the districts of Srinagar, Anantnag and Baramulla are found to be better developed in comparison to other districts of the Kashmir valley. The districts of Ganderbal, Bandipora and Shopian are low developed. Special care should be taken for implementing the developmental programmes in these districts.

Three districts namely Anantnag, Baramulla and Kupwara are better developed in agricultural sector whereas two districts are having better socio-infrastructural facilities namely Srinagar and Anantnag. The districts of Srinagar, Anantnag and Budgam are better developed in industrial sector.

Infrastructural facilities and overall socio-economic development are found to be in a positive relationship. Similarly industrial development is also directly linked with infrastructural facilities. Agricultural development was not found to be directly associated with industrial and over-all socio economic development or infrastructural facilities.

The districts with low development are not fully in phase of low development rather there are few grey areas in their path of development which need to be addressed soon to mark their upward trajectory of growth as soon as possible.

Wide disparities in the level of development were marked among different districts posing threats of regional imbalance within Kashmir valley.

For enhancing the level of development of low developed districts, model districts have been identified and potential targets of various developmental indicators have been obtained. The low developed districts require improvement of various dimensions in the developmental indicators. The level of

development at smaller level say gram panchayat or block level should be evaluated and location specific recommendations for improving the level of development may be put forward. This will help in identifying the low developed blocks or gram panchayats and with location specific recommendations quick improvement in the level of development may be made.

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