

Level of Agricultural Development of Two Border States: A Case Study of District Kathua (J & K) and Tehsil Pathankot (Punjab)

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Abstract: Disparities in development are ubiquitous phenomena in developed as well as developing countries, but the problem of disparities is quite acute in the latter due to extreme backwardness and existence of few developed pockets at the cost of others. India is no exception to it. The present study extending over nine hundred forty eight villages of Kathua district of Jammu and Kashmir and Pathankot tehsil of Punjab reveals that diversity in the sectoral development in the villages is the main factor responsible for the disparities. This theme has been chosen to understand the development scenario in Jammu and Kashmir in comparison to Punjab on the basis of case studies of adjoining areas.

Keywords: backwardness, developed, developing, disparities, diversities, phenomena.

I. INTRODUCTION

The word 'Development' reflects 'change'. This state of change is either negative or positive. However, in an economy the word 'development' means as a rise in the per capita income together with a improved distribution of material welfare. Development thus comprises of two components: a rise in the per capita income and an improved distribution of material welfare. Conceptually, the term development is a state of change from a given situation of a region to become a better one within the given period of time. It shows that the change in positive direction is a basic component of development. On this basis Galbraith¹ recognizes three types of economic growth as:

1. Symbolic modernization
2. Maximum economic growth
3. Selected growth

The concept of development is not related merely to quantitative aspects but it is also related to qualitative assessment. In its qualitative aspect, it coincides with the welfare objective. It is not enough to observe what is produced and distributed, rather economic development should also boost economic and social welfare. In comparing the poor nations with the rich countries, one should take into account the population growth, real per capita income and socio-economic welfare. Thus, it is obvious that development means an upward movement not merely of national but also the entire social system².

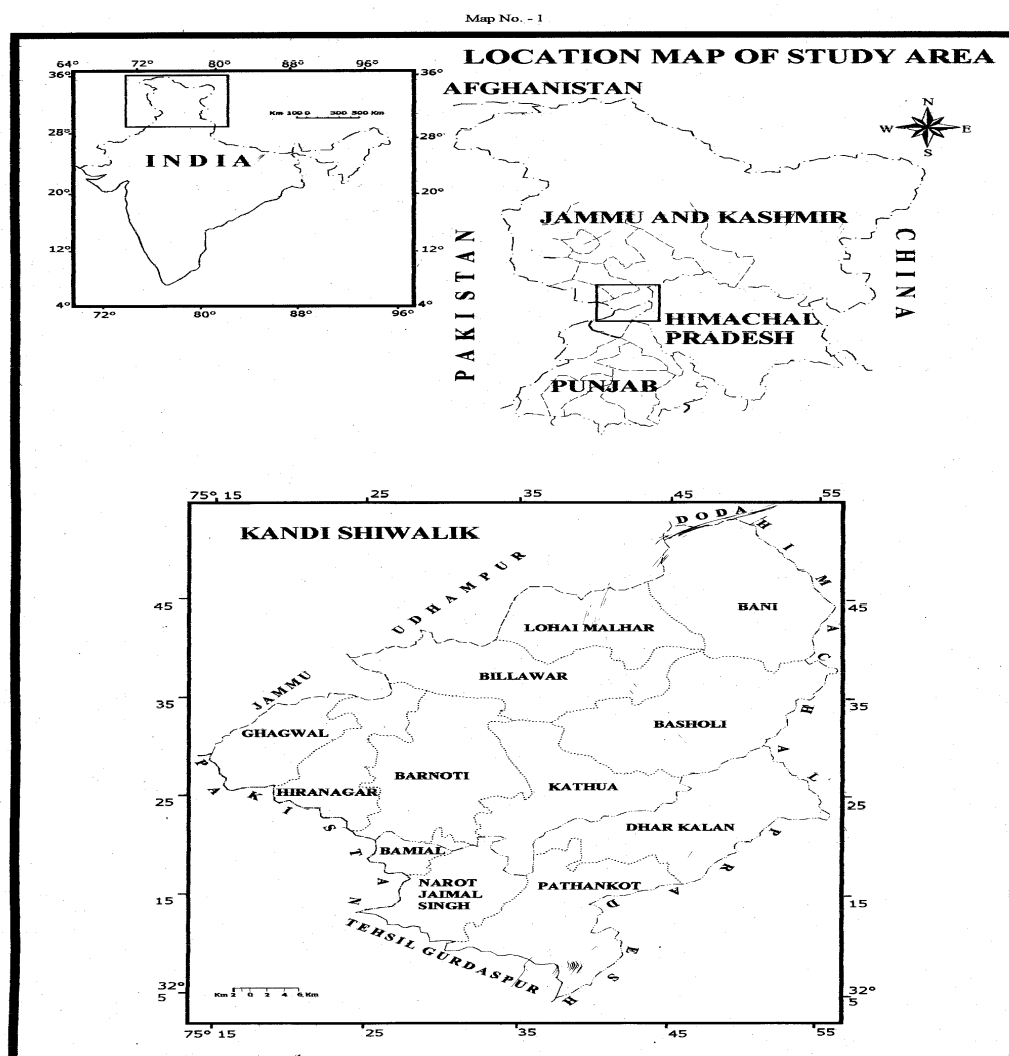
The notion of development in the context of regional development refers to a value-positive concept, which aims at enhancing the levels of the living of the people and general conditions of human welfare in a region. It is a value positive concept because development is not only a change but also a change for better just as plant develops into a tree and a child into an adult and there is no reversal of the position attained. Economic development is reflected through growth of output and national income.

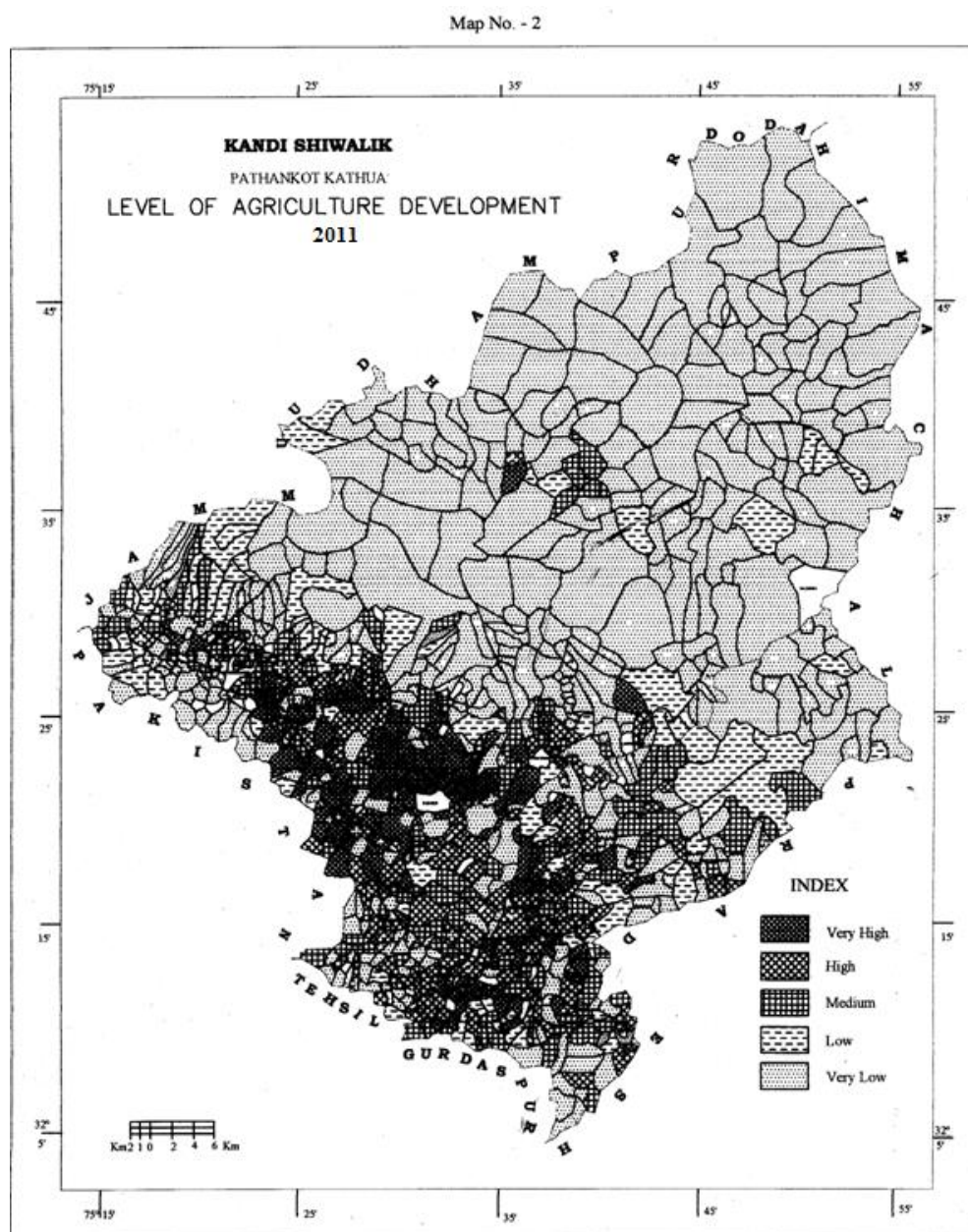
In the study area, various efforts have been made by government to develop the backward regions and especially the Kandi Shiwalik belt of the state of Jammu and Kashmir in which block development programmes were introduced under the IRDP. Various projects under World Bank and the central as well as state government have been started such as watershed programme, adult education, family planning programmes etc. It is therefore, essential to analyse the level at which the government has succeeded in meeting the objectives of development for all. Physical factors have been

responsible in keeping the entire region underdeveloped. However, in analysis, their effect has not been seen in a 'cause-effect framework' on the process of development, rather it has been attempted to look at the various developmental variables and their relative levels.

II. STUDY AREA

Geographically the study area would have a spatial expanse in the sub – montane and hill tract of the two states of Punjab and Jammu and Kashmir commonly known as the Sub- Himalayan zone or Foothill zone or Sub – montane areas, not favourably endowed by nature, and stand neglected, and overlooked. Kathua is called Jasrota and Pathankot as Shapur Kandi in earlier census reports. These are the oldest districts of the respective states, which came into existence before partition of the country. Situated in the southern most part of Jammu and Kashmir and northern most part of Punjab respectively, the area has unique status among all others surrounding area of the states and serves as gateway for the country to enter Jammu and Kashmir and old Himachal Pradesh through its famous town Lakhanpur and Jugial. The study area is surrounded by Pakistan in the southwest, Gurdaspur district of Punjab in south, Chamba district of Himachal Pradesh in the east and Doda, Udhampur and Jammu districts in the north. The study area lies between $32^{\circ} 05'$ to $32^{\circ} 55'$ North Latitude and $75^{\circ} 17'$ to $75^{\circ} 56'$ East Longitude (Map No. – 1). The region contains an area of 3590 sq km as per records of Surveyor General of India, which accounts for only 1.9 percent of the Jammu and Kashmir's total Geographical area and 0.45 percent of the area of Punjab. According to 2011 census, the total population of the study area was 243317 persons (Pathankot with 123734 and Kathua with 119583 persons respectively). The study area has 1003 revenue villages out of which 53 are uninhabited. For administrative convenience, the study area has been further divided into 5 revenue tehsils, 12 police stations, 12 CD blocks, and 17 Educational zones.





III. METHODOLOGY

On the whole, as per the 2011 census there were a total of 1003 revenue villages out of which 53 were uninhabited leaving a total of 948 villages for the study purpose. A large number of development variables have been used to compute the levels of development. As far as hilly and Kandi region like Kathua and Pathankot, are more concerned, only selected variables are to be taken into account for analysis while others which have limited significance are avoided. Thus, in the present study an attempt has been made to analyse only the variables pertaining to agricultural development which forms the part of this study.

The Variables:

- a) Percentage of net cultivated area to the total geographical area
- b) Percentage of gross irrigated area to gross cultivated area
- c) Source-wise irrigation

No irrigation	0
Others	1
Khul ³	2
Khul/Canal	3
Canal	4
Tube Well	4
Canal/Tube well	4

The above set of indicators pertains to the level and potentialities of agricultural growth. The percentage of cultivated land to total geographical land is a powerful indicator of development in the areas like Kandi Shiwalik where most of the land is unsuitable for cultivation due mainly to physical condition. The economy of the study area is predominantly agricultural. About 70 percent of the population is totally dependent on agriculture. This, therefore, shows that more land seems to have been brought under the plough and the villages can support large population. The average per capita net sown area reveals the extent of pressure on agricultural land. Irrigation, being the mother factor in influencing agricultural productivity, is a strong indicator. One of the ways for determining agriculture development would have been by way of calculating the percentage of irrigated land to the total cropped area. This was not favoured because study area has semi-arid conditions in vast tracts, where agriculture in any form is not possible without irrigation. The proportion of irrigated land involved may be very small. Therefore, the amount of per capita irrigated land was deemed as more representative of agricultural development. Different sources of irrigation play very important role in the development of agriculture. Because the study area forms the part of the outer Shiwaliks and as such is not a plain area, the irrigation by canals and tube wells becomes not only different but impossible. The main source of irrigation in this area is springs, khuls and tank. In outer plain the sources of irrigation are however developed and area is irrigated by canals and tube wells as a result of it outer plains of the study area is agriculturally more developed than sub mountainous and Kandi belt. The problem of assigning weightage could not be avoided, these weightages essentially reflect the importance of different sources of irrigation and their role in the development process of agriculture.

Agriculture is the mainstay of economy in the study area, whereas the arable land is scarce. Hence, per capita availability of cultivated land reflects the importance of this scarce resource in backward region. Based on their importance and the level of scarcity in a region, weightages have been assigned to the various factors of performance as mentioned below.

Composite index has been worked out for the set of variables separately as well as jointly to see the rank of a village.

The values were made scale free by dividing values of each variable by their respective mean (\bar{X}) for all variables. Therefore, the mean has been divided by values of each column. After this, the scale free values were added to obtain a composite index for each village. The value of each column shows the relative position with respect to the agricultural development. for obtaining the composite score the following formulation has been used.

$$C.I. = \sum_{j=1}^m \frac{X_{ij}}{\bar{X}_j}$$

X_{ij} = Value of the j^{th} variate for i^{th} village

m = Number of variables.

The value of the index shows the level of development. The assumption is that the higher the value of C.I., the higher will be development⁴. In the present study, the index for the sets of indicator i.e. agriculture has been worked out to show the disparities at each set. To see the intra- regional disparities the villages were grouped by taking standard deviation as class interval from the mean.

IV. PROCESSES AND PROBLEMS

The position of villages in respect of set of variables has been discussed separately before looking at the composite scores. Agriculture here comprises of percentage of net cultivated area to the total geographical area, percentage of gross irrigated area to gross cultivated area and source-wise irrigation. All these collectively reflect the overall development of a region. The presence of these variables shows predominantly agrarian economy.

Table.1: Composite Index of Agricultural Development

Category	Value of C.I.	Rank	No. of Villages
More than Mean + 2 S.D.	> 4.83	I	180
Mean + 1 S.D. to Mean + 2 S.D.	3.91 – 4.83	II	160
Mean to Mean +1 S.D.	2.99 – 3.91	III	167
Mean – 1 S.D. to Mean	2.07 – 2.99	IV	97
Less than Mean – 1 S.D.	< 2.07	V	344

Source: Computed from the data of village amenity Directory, Directorate of Economics and Statistics, Govt. of Jammu and Kashmir, District Kathua 2010-2011

Computed from the data of village amenity directory, Directorate of Economics and Statistics, Govt. of Punjab, District Gurdaspur 2010-2011

Village and Town Directories, Kathua District, Census of India, Director of Census operations, Jammu, 1981, 1991, 2001 and 2011

Village and Town Directories, Gurdaspur District, Census of India, Director of Census operations, Gurdaspur, 1981, 1991, 2001 and 2011

The analysis of table reveals that 180 villages have index value more than mean + 2 S.D. and ranked first (Map No. – 2). These includes Atepur, Kahanpur, Bamial (whole), Antop, Samalipur, Kirikhurdh, Jogar, Bhatoa, Aiman Gujran, Alikhan, Sherpur Gidrpur, Sultanpur, Khanpur, Kelasar, Govindsar, Jhako Lahri, Darsopur, Malikpur, Chak Desa Singh, Pithobala, Panwal, Pandori, Jugial, Bharmori, Nangal, Malwal, Rakhsarkar Ludhwa etc. Most of the villages in this class are from Pathankot tehsil and Barnoti block of Kathua district. These villages show a high agricultural development because these villages lie in the outer plains and as such enjoy favourable conditions for agricultural development. The soils of these villages are fertile and consist of alluvium. These plains are often flooded by the river Ujh, Ravi and seasonal nullahs/khads which provides rich alluvium to these villages. Secondly, the agricultural development programmes by the government enhanced agricultural activities in these villages. Thirdly, the villages have better irrigational facilities like canal and tubewells. The main canal systems in this area are the Upper Bari Doab canal and the Basantpur lift irrigation canal system. The water table of these villages is high and assured irrigation is possible throughout the year. There has also been increase in net sown area in these regions. The farming technique is totally mechanized and the farmer switched from subsistence to commercial farming practices. This is followed by 160 villages with index value of 3.91 – 4.83 and ranked second in hierarchy of agricultural regions taking agricultural development as a factor. This rank of villages include the villages of Jugial, Jandwal, Firozpur Kalan, Sarota, Alial, Sekhu Chak, Sahora Kurdh, Firoja, Fattu Chak, Pakho Chak, Kathlore, Kasi Barma, Mansinghpura, Ram Kalwan, Silaibholi, Sujanpur, Jamalpur, Naushera, Parmanand, Chak Diwan Kripa Ram, Ramnagar, Chak Hari Singh, Sukdevpura, Tarf Sanji, Rampur, Chak Fattu etc. The reasons for this can be attributed to the fact that these villages have low irrigational facilities as compared to the first rank villages. These villages fall in the intermediate zone of outer plains and Kandi and are located on rolling plains having less fertile soils.

The third category of 167 villages shows index value of mean to mean + 1 S.D. i.e. 2.99 – 3.91 and includes the villages Halar, Gho, Tharhaly, Pangoli, S.T Narot, Akhwara, Kolian, Nangal, Chohan, Gehr, Ch.Gusam Chak Shiba, Muakanopur, Arjan Chak, Ghagwa, Mava, Muni, Koti, Bhikar, etc. low level of agricultural development in this category of villages can be attributed to the poor irrigational facilities. For instance, the gross irrigated land in the villages in this category varies between 10 to 15 percent only as against percent irrigated villages of sub mountainous area. Their relative scores in

terms of both the cultivated land as well as the gross irrigated area are comparatively low. However, owing to favourable climatic conditions, the intensity of cropping is high. The fourth category has 97 villages showing index value of mean – 1 S.D. to mean. It reflect low agricultural development in the villages which include Kot, Ghad, Bakhatpur, Tash, Dalla Balin, Dhaki Saida, Phoolpiara, Bagial, Maqnwal, Mamun, Wadala, Tarf Tajwala, Rakh Jahfar, Dhanore, Bhaddiyali, Chandwan, Mada, Sehswan, Hiranagar, Rattan Chak, Kore Qasba, Harsaath etc. These villages practices subsistence type of agriculture due to non availability of irrigation facilities and as such agriculture depending upon rainfall

The fifth and the last category i.e. less than mean – 1 S.D. having 344 villages reflects very low levels of agricultural development. These villages lie in the upper Kandi hilly tract, where agricultural land is limited and irrigation is negligible. The physiography plays a dominant role in placing these villages in very low agriculturally developed region.

It is clear from the above discussion that plain fertile land, irrigation facilities and the new agricultural inputs coupled with climate plays a dominant role in the development of agriculture. Any breakthrough in agriculture development, particularly in traditional subsistence agricultural societies, depends upon provision of institutional facilities for agriculture and improvement in conditions for agriculture, leading to a higher level of production. It was learnt that despite its rich physical resources and no superior irrigation base, research area did not fare better than India as well as in Jammu and Kashmir and Punjab as a whole in agricultural sphere

V. CONCLUSIONS

The research area is characterized by a diversity of climate, soils and topography. It has differences in agricultural development. The performance of the agriculture in terms of overall development suggesting the economic composition and structure based on primary activity. It could be seen from the data computed that the entire study area showed a well distributed and well ranked performance of villages in all the categories. The highest rank villages amounting to 180 were located in the outer plains of the study area and registered a significant increase in the net sown area as well as a substantial shift in the agricultural practices from subsistence farming to commercial farming of cash crops. The second category of villages 160 was an intermediate zone extending between the outer plains and the Kandi belt. Here the performance could be attributed to an increase in the net sown area by bringing cultivable waste under net sown area. Most of these villages were located in Punjab side and Barnoti block of Jammu and Kashmir. The third category had 167 villages are mostly located in the Kandi belt. In this category the cropping intensity varied with physical condition. The fourth category of villages was located in the upper reaches of the Kandi belt practicing subsistence agriculture because of lack of irrigation facilities. The major chunk of 344 villages lie in the last category and located in the hilly tract of Kandi belt was the least irrigated area coupled with the arid and dry climatic conditions. Agriculture variables of net sown area, gross irrigated area and source wise irrigation are determining and governing forces in the distribution of nodal places in Kandi Shiwalik, which by themselves are greatly influenced by physical factors.

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