RESEARCH ARTICLE

REGIONAL ANALYSIS OF PER CAPITA INCOME AND SOCIO-ECONOMIC STATUS OF RURAL BEGGARS IN ALIGARH DISTRICT

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ABSTRACT

The present research paper is an attempt to analyse the spatial patterns of rural beggars' income, variations in the level of their socio-economic status, and the relationship between their per capita income (dependent variable) with selected variables of socio-economic development in Aligarh district of Uttar Pradesh. The study is based on primary source of data, collected through the field survey in the Aligarh district carried out during 2009. Altogether, 496 households were selected for the present study from the 70 villages of the district. Spatial analysis reveals that high level of per capita income among rural beggars is observed in the central parts of the district and decreases outside, while, the peripheral blocks of the district are more socio-economic developed than the central blocks of the district.

INTRODUCTION

Modern societies viewed begging and the presence of beggars on the streets as a social problem. Many of the systematic efforts to document the problem of destitution and begging have come from America (Bromley 1987). The menace of street begging as a potential threat to the environmental, economic and social survival of humanity, societal fabric is evident (Ogunkan and Fawole 2009; CRISIS 2003). People engaged in begging themselves also recognized begging to be a 'problem'. To them, it's harsh, humiliating, demeaning, degrading and frustrating (Lynch 2005; Rowntree 2000). The Encyclopedia of Social Work in India (1968) viewed beggars as mobile charity seeker people who could easily be noticed by the way they live and earn money essential for survival; and most of who are homeless and live in the open or in the impoverished huts. Beggars in India are the victims of an unbalanced socio-economic system. They are amongst the most vulnerable people in our society and show the low economic condition of that group. These are the human degradation to the lowest extent, and a menace to the healthy society. Most of them are the product of economic deprivation, destitution and neglect (Cama, 1945). Mukharjee (1945) pointed out that "*Beggary is a symptom of social disorganisation*". The major factors making for its prevalence are to be found in the breakdown of the socio-economic structure of the country. Moorthy (1945) noticed that beggars now depend almost wholly on indiscriminate charity which encourages thousands to join the legion of paupers and destitute. Gillin (1929) examined that how socio-economic conditions result the beggary and vagrancy and also highlighted the main causes which give rise to begging like economic and social disorganisation due to changes in the economic order or political instability, breakdown of agriculture, religious ideals and practices, the crusades, migrations decay of feudalism, a plague of famine. Adedibu and Jelili (2011) explore different aspects and correlate of begging and use same to identify a comprehensive control package. A comprehensive package covers the

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issues as physical planning, socio-economic, religious, legal and other control measures are recommended for consideration. Primarily development can be perceived as reflection of personal values conditioned by societal framework in which one lives (Stohr and Taylor, 198). In the other words, development implies progressive changes in socio-economic structure of a country (Chand and Puri, 1990). The development is an outcome of the efforts made for the eradication of poverty and unemployment and regional inequalities (Seer, 1989). The development is the state of change from a given situation of a region to become better one within a given period of time (Sharma, 1989). The development of a region can be identified with an increase in the employment opportunities, availability of infrastructural facilities, amenities and services, proper distribution of resources, increase in production, and investment in consumption and so on. Thus, the development refers to an improvement of all the sectors of economic, social and cultural pursuits (Verma, 1993).

Aims and Objectives

The present study has been undertaken with the following specific objectives:

- to analyze the regional variations of per capita income of the rural beggars in the Aligarh district.
- to inspect the inter-block disparities in the levels of development among the twelve blocks of the Aligarh district.
- to find out the relationship among the per capita income of the rural beggars (dependent variables) with the selected variables of socio-economic development in the study area.

Study Area

Aligarh district, a medium sized district, is spreading over an area of 3700.4 square kilometers in the Western part of Uttar Pradesh. It occupies the north-western part of the Uttar Pradesh which is fertile region of Ganga and Yamuna, known as *Doab*. In the world map, the geographical location of this district is in North-Eastern Hemisphere and lying between the parallels of 27°29' and 28°11' north latitudes and meridians of 77°29' and 78°38' east longitudes. Its boundary touches the boundaries of five other districts (Bulandshahr, Badaun,

Mathura, Hathras and Etah) of the Uttar Pradesh and one state (Haryana) of India. At present, the district is divided into five Tahsils namely, Koil, Khair, Gabhana, Atrauli and Iglas for the purpose of land record keeping, land revenue collection, judicial administration, etc. These tahsils are further sub-divided into 12 development blocks namely: Atrauli, Gangiri, Bijauli, Jawan, Chandus, Khair, Tappal, Dhanipur, Lodha, Akrabad, Iglas and Gonda. According to 2001 Census, the district accommodates a residential population of 29, 92, 286 of which 29 per cent was classified as urban and 71 per cent as rural. The general density of population in the district was 820 persons per sq. km. However, it was 607 persons per sq. km. in the rural sector and 5,949 persons per sq. km. in the urban sector. The general sex ratio that is the number of females per thousand males was 862 in the district, whereas, the figures for the rural and urban areas were 856 and 876 respectively. The literacy rate in the district is 58.5 per cent and the male literacy rate is 71.7 per cent and females are 43.0 per cent literate while, the percentage of literacy in rural and urban population was 56.5 and 63.2 respectively. According to the Census of India there were 7,50,307 beggars and vagrants in India in 1981, which declined to 5,42,875 in 1991, though it further increased to 6,27,688 in 2001. Out of the total beggars, about two third beggars were in rural areas while one-third in urban areas. The matter of begging is not the ignorable issue of the society, but in fact, the begging has become one of the most problematic social issues of India. It is, therefore, necessary that empirical studies have to be undertaken aimed at collecting relevant data on the subject.

DATABASE AND METHODOLOGY

The study is based on primary source of data that has been collected the through field survey in the Aligarh district, carried out during 2009. The villages have been selected on the basis of stratified random sampling technique. According to 2001 Census, the district had 1210 revenue villages of which 1180 were inhabited. The inhabited villages were stratified into three categories based on the size of population, so that, all types of population and villages may get reasonable representation in the samples randomly drawn for the survey. Keeping in view the constraints of time and cost, it was decided to collect data for this enquiry from 6 per cent villages of each category. In this way 70 villages were selected for the survey, out of the 1180 inhabited villages, while, for the selection of households, 25 per cent households were randomly selected from each selected village of the district. Altogether, 496 households were selected for the present study from the 70 villages of the district. In the present analysis, a set of seventeen indicators of socio-economic development have been taken into account to determine the levels of socio-economic status at one hand and per capita income on the other hand in the twelve blocks of the district. These indicators fall into five categories like population characteristics, literacy, employment, income and household infrastructural facilities. In the first step, the raw data for each variable which determines the areal variations of per capita income and levels of their socio-economic status have been computed into standard score. It is generally known as Z value or Z-score. The score quantify the departure of individual observations, expressed in a comparable form. This means it becomes a linear transformation of the original data (Smith, 1973: 85). It may be expressed as:

$$Z_{ij} = \frac{X_{ij} - \overline{X_i}}{\sigma_i}$$

Where: Z_{ij} = Standardised value of the variable i in block j,
X_{ij} = Actual value of variable i in block j,
X_i = Mean value of variable i in all blocks,
σ_i = Standard deviation of variable i in all blocks.

In the second step, the Z-scores of all variables have been added block wise and the average has taken out for these variables which may be called as composite score (CS) for each block and may be algebraically expressed as:

$$CS = \frac{\sum Z_{ij}}{N}$$

Where: CS stands composite score,
$\sum Z_{ij}$ indicates Z-scores of all variables i in district j,
N refers to the number of variables.

The positive values relating to the districts' Z-score explain high level, while, negative values indicate the low level of per capita income of beggars, and their levels of socio-economic development in the study area. The correlation co-efficient is worked out among dependent variables (per capita income) and independent variables (selected variables of socio-economic development) and student t-test technique is applied to find out the determinants which are significant at 1 per cent and 5 per cent levels. The correlation co-efficient has been computed on the basis of the Karl Pearson's correlation co-efficient (r) method which is as follows:

$$r = \frac{\sum xy - \sum x \sum y / n}{\sqrt{\sum x^2 - \frac{(\sum x)^2}{n}} \sqrt{\sum y^2 - \frac{(\sum y)^2}{n}}}$$

Where: r is the co-efficient of correlation,
X, y are the two given variables,
n is the number of observation.

To find out the computed 't' value, student t-test technique is used which is given below:

$$t = r\sqrt{\frac{(n-2)}{1-r^2}}$$

Where: t is the calculated value of 't' in the test of significance,
r is the computed value of co-efficient of correlation,
n is the number of observation.

Besides, advanced statistical techniques, GIS-Arc view programme (Version 3.2a) has been applied to show the spatial variations of per capita income and socio-economic development of beggar population among the blocks of the Aligarh district through maps.

Regional Analysis of Per Capita Income

Per capita income is widely accepted as a measure of development. It is customary to identify whether a region is backward or advanced in level of development with the help of per capita income. The regions which enjoy higher per capita income are deemed to be more developed than those regions with low per capita income. The rural per capita income is shown in the Table 1 The level of rural per capita income varies from -1.86 score in the Atrauli block to 1.32 score in the Gangiri block of the district. Figure 3 depicts that the six blocks namely, Lodha, Dhanipur, Gonda, Chandaus, Jawan and Gangiri have high level (above 0.50 score) of per capita income and form a large identifiable region in the whole central part of the district. Three blocks (Bijauli, Khair and Akrabad) experienced the medium level (0.50 to -0.50) of per capita income and fail to share with the boundary of adjacent blocks of the district to form any region (Figure 3). Three blocks (Tappal, Iglas and Atrauli) of the district fall under the low level (below -0.50 score) of per capita income and do not form any region.
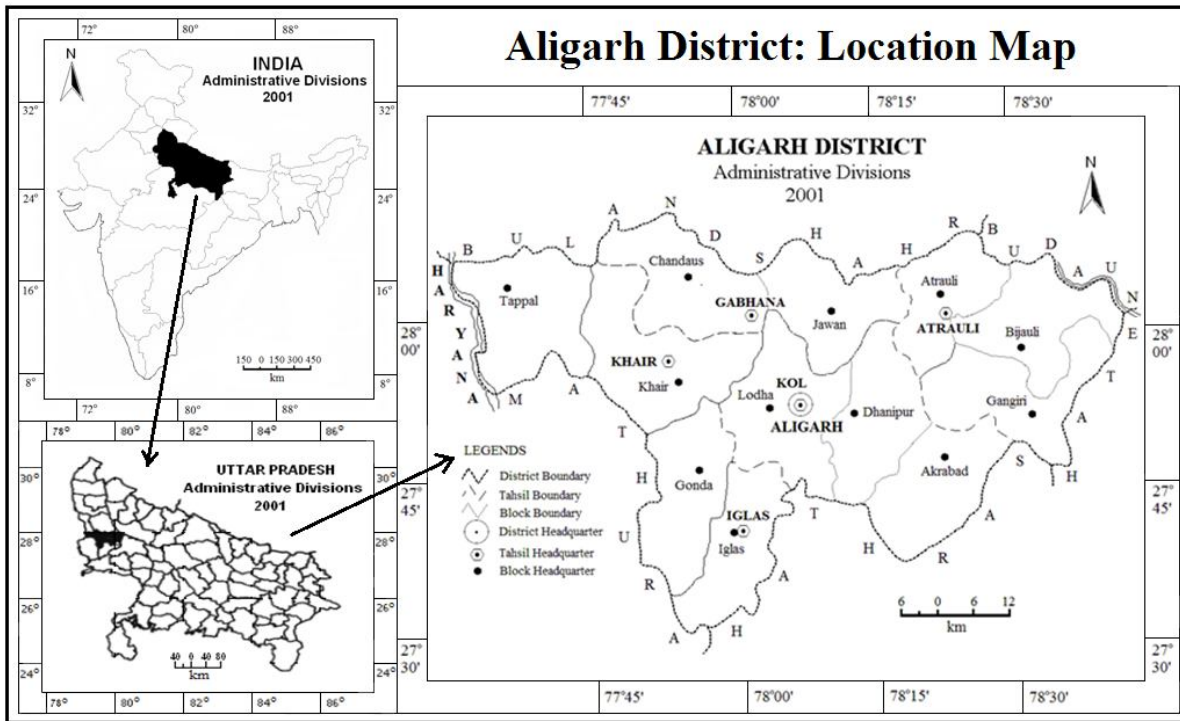
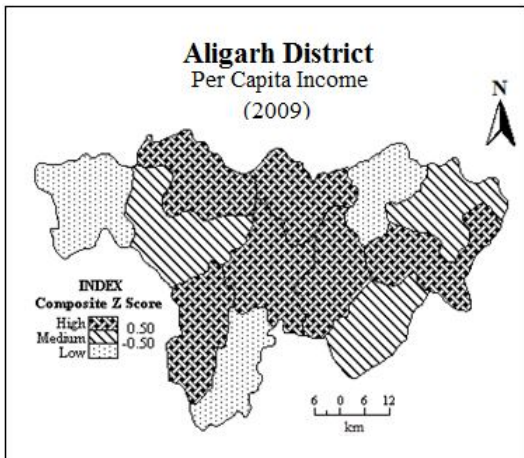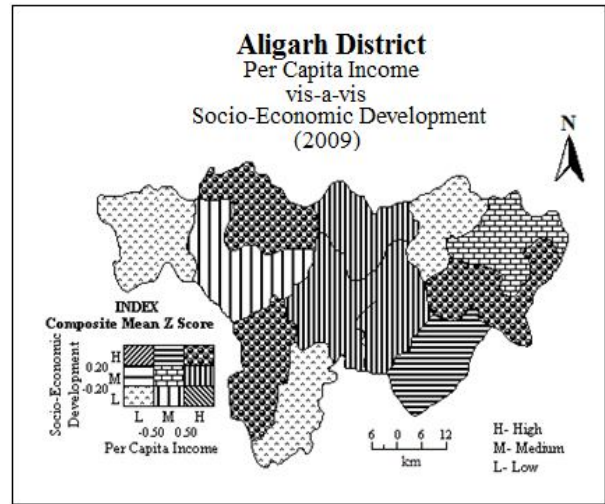Source: Census of India & Vikas Bhawan, Aligarh, 2008
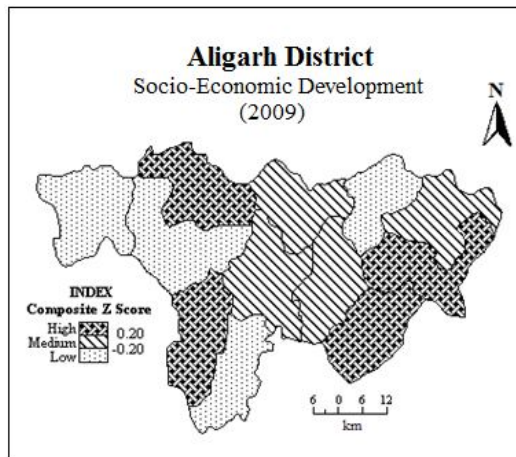
Figure 1

Figure 2

Figure 3

Figure 4

Regional Analysis of Socio-Economic Development

The level of socio-economic development is the aggregate output of the attainment of the various selected socio-economic indicators. Socio-economic development of an area can be measured with the help of several indicators but beggars are the persons who are considered as poorest of the poor and do not have so much facilities available within their households that is why, only a few indicators has been chosen to measure the levels of socio-economic development like demographic, literacy, employment, per capita income and household facilities. The level of socio-economic development of rural parts of the district varies from -0.83 score in the Tappal block to 0.62 score in the Gonda block of the district (Table 1). The Figure 4 depicts that four blocks have high level (above 0.20 score) of socio-economic development, two of them (Akrabad and Gangiri) make a small region in the south-eastern part of the district and remaining two blocks (Chandaus and Gonda) do

Table 1. Block-Wise Distribution of Z-score of Per Capita Income, and Socio-Economic Development in Aligarh District, 2009

Name of the Block	Per Capita Income	Socio-Economic Development	Per Capita Income vis-à-vis Socio-Economic Development
Lodha	1.06	0.03	$PCI_1 SED_2$
Dhanipur	0.62	0.18	$PCI_1 SED_2$
Akrabad	-0.49	0.49	$PCI_2 SED_1$
Gonda	0.62	0.62	$PCI_1 SED_1$
Iglas	-0.89	-0.27	$PCI_3 SED_3$
Khair	-0.38	-0.35	$PCI_2 SED_3$
Tappal	-1.25	-0.83	$PCI_3 SED_3$
Chandaus	0.93	0.33	$PCI_1 SED_1$
Jawan	0.52	-0.12	$PCI_1 SED_2$
Atrauli	-1.86	-0.24	$PCI_3 SED_3$
Bijauli	-0.2	-0.05	$PCI_2 SED_2$
Gangiri	1.32	0.21	$PCI_1 SED_1$

Source: Calculation is based on Sample Survey.
Note: PCI_1= High Level of Per Capita Income, PCI_2= Medium Level of Per Capita Income, PCI_3= Low Level of Per Capita Income, SED_1= High Level of Socio-Economic Development, SED_2= Medium Level of Socio-Economic Development and SED_3= Low Level of Socio-Economic Development

Table 2. Levels of Per Capita Income and Socio-Economic Development in Aligarh District, 2009

Category	Z-Score	No. of Block	Name of the Block
Per Capita Income			
High	Above 0.50	06	Lodha, Dhanipur, Jawan, Chandaus, Gonda and Gangiri Gonda,
Medium	0.50 to -0.50	03	Khair, Akrabad and Bijauli
Low	Below -0.50	03	Iglas, Tappal and Atrauli
Socio-Economic Development			
High	Above 0.20	04	Chandaus, Gonda, Akrabad and Gangiri
Medium	0.20 to -0.20	04	Lodha, Dhanipur Jawan and Bijauli
Low	Below -0.20	04	Iglas, Khair, Tappal and Atrauli

Source: Based on Table 1.

Table 3. Results of Correlation (r) between Per Capita Income and Other Selected Indicators of Socio-Economic Development in Aligarh District, 2009

Variable	Definition of Variables	Per Capita Income
X_1	Percentage of male population to the total selected population	0.411
X_2	Percentage of female population to the total selected population	-0.411
X_3	Sex-Ratio	-0.41
X_4	Household Size	0.177
X_5	Total Literacy Rate	-0.22
X_6	Male Literacy Rate	0.365
X_7	Female Literacy Rate	0.078
X_8	Total Employment Rate	0.151
X_9	Male Employment Rate	0.24
X_{10}	Female Employment Rate	-0.006
X_{11}	Per Capita Income	1
X_{12}	Percentage of households having own houses	-0.271
X_{13}	Percentage of households living in pucca houses	0.366
X_{14}	Percentage of households having the drinking water facility within their premises	0.103
X_{15}	Percentage of households having bathroom facility within their premises	0.47
X_{16}	Percentage of households having latrine facility within their premises	-0.048
X_{17}	Percentage of households having electricity facility within their premises	-0.121

Source: Calculation is based on Sample Survey by Researcher.
* Significance at 1 per cent level, ** Significance at 5 per cent level

not form any region. Four blocks with the z-score of 0.20 to -0.20 have the medium level of socio-economic development and three of them (Jawan, Lodha, and Dhanipur) form an identifiable region in the central part of the district and Bijauli block does not form any region. Four blocks of the district, namely, Tappal, Khair, Iglas and Atrauli fall under the low level (below -0.20 score) of socio-economic development, out of which, Tappal and Khair blocks make a small region in the western part of the district.

Relationship between Per Capita Income and Socio-Economic Development

The interrelationship between rural per capita income and socio-economic development is shown in the Figure 6 and it reveals that six blocks of the district fall under the high grade (above 0.50 z-score) of rural per capita income, out of which, three blocks namely, Gonda, Chandaus and Gangiri also have high level of socio-economic development Mend remaining three blocks (Lodha, Dhanipur and Jawan) having medium level of socio-economic development and

form a dominant region in the central part of the district. Three blocks experienced the medium level (0.50 to -0.50 z-score) of rural per capita income, wherein, Akrabad, Bijauli and Khair blocks have high, medium and low level of socio-economic development in the district respectively. Three blocks i.e. Tappal, Iglas and Atrauli have both low level (below -0.50 z-score) of per capita income and socio-economic development which are widely scattered in the district.

Correlation of Employment Rate and Per Capita Income with the selected Variables of Socio-Economic Development

The analysis of simple correlation of per capita income (dependent variable) with selected socio-economic development indicators (independent variables) has been listed in Table 3. The correlation between per capita income and socio-economic development indicators shows that out of seventeen independent indicators, no indicator has a high level of significant relationship. Instead of one star and double star indicators, other indicators of socio-economic

development are also correlated with the employment rate and per capita income but not up to a significant level.

Conclusion

The geographical patterns of rural per capita income and socio-economic development and their relationship clearly depict that there are a wide range of variations among the districts of the study area. The regional analysis of the per capita income exhibits that the level of per capita income is found high in the central parts than the periphery parts of the district. As far as, the socio-economic development of the district is concerned, it is found that the central part of the district fall under the medium level of socio-economic development, while, the high level of socio-economic development is found in the south-eastern part, and the western part comes under low level of socio-economic development. The association between per capita income and socio-economic development shows a good relationship between both in the study area. The following suggestions may be put forward to improve the socio-economic status of beggar population in the study area:

i.The general education system needs a meaningful change to make it job oriented. Beggars are to be kept busy in the institutions through vocational education and some kind of productive activity. The programmes of vocational training like tailoring, sewing, spinning, mat weaving, book binding, gardening, mid-wifery, incense-stick making, cooking, catering, doll making, poultry and bee-keeping, carpentry etc.

ii. Government should develop agro-based household industries and by giving emphasis on agro-allied and ancillary activities for beggar population i.e. animal husbandry, fisheries , poultry, piggeries, apiculture, sericulture etc., so that the these people can get employment at their places of origin and it will also help to stop the movement of the poor people towards urban areas.

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