

Regional variation in poverty in Karnataka: An analysis of its trends and factors contributing

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Abstract

The paper based on secondary data from the Planning, Programme Monitoring and Statistics Department, Government of Karnataka examines the regional variation in poverty in Karnataka and the factors contributing to it. It has been observed that the incidence of poverty has declined in rural, urban area and the total incidence of poverty has significantly declined in Karnataka during 1973-74 to 2011-12. The districts which have more percentage of change in the poverty are Kolar, Bangalore Urban, Tumkur, Bangalore Rural, Bidar and Kodagu. The lowest changes of poverty line in these districts are Chikkamangalure, Belagavi, Hassan, and Bellary district. The higher incidence of poverty in rural areas of Karnataka was found in Dharwad, Chitradurga, Koppala and Kalaburgi districts. The poverty is estimated of higher levels zone districts that are part of Yadageri, Bidar, Kalaburgi and Bagalkot in arid zone. Four of the 10 explanatory variables have significant simple correlation with the dependent variable. This has significant but correlation with poverty. The four variables are irrigation, agriculture labours, marginal workers and share of small farmers. These variables have 0.10 levels of significant correlations with poverty. Share of small farmer's variable is highly significant and influenced to reduce the poverty and Per capita income is highly correlated with agriculture labours. The promotion of livelihood opportunities, through modernizing agriculture, establishing rural industries, establishment of skill development training, improve women empowerment, improve the education in rural and urban area.

Keywords: regional poverty, factors contributing, agriculture zone

1. Introduction

Economic growth with "equity and social justice" or "faster, more broad-based and inclusive growth" has always been the premier objective of the development programmes in India. Alleviation of poverty and unemployment has been accorded top priority in development planning since inception in rural areas. In the 1970s a renewed effort was made to address the problem of poverty and unemployment when the technocratic model of economic growth based on the "trickle-down hypothesis" proved inefficient and inadequate in reaching the benefits of economic growth to the weaker sections of the society. It was quite evident from the large scale sample survey carried out in the mid-1970s that more than half of India's population continued to live below the poverty line.

The policy makers realized that due to lack of exchange entitlements and endowments the benefits of economic growth did not automatically trickle down to the poor. The poor were unable to participate in, contribute to and enjoy the benefits of economic growth. Growth alone was not enough to reduce chronic poverty. Economic growth needed to be supplemented with state-sponsored poverty alleviation and rural development programmes (Biradar 2012) ^[1]

In India, defining poverty has been controversial issue, especially since mid 1970s when the first such poverty line was created by the erstwhile planning commission. It was based on minimum daily requirement of 2400 and 2100 calories for an adult in rural and urban areas. Economists such as DT Lakdawala and later YK Alagh, among others, were involved in working out of poverty line from time to time. Recently Suresh Tendulkar and C Rangarajan modifications were made considering other basic requirements of the poor, such as housing, clothing, education, health, sanitation

conveyance, fuel etc. thus making the poverty line more realistic. Consumption expenditure with other indicators was used in measuring multidimensional poverty. The reduction in multidimensional poverty was observed irrespective of indicators weights, deprivation cut-off and identification criterion of the poor. A significant poverty reduction was found due to reduction in the proportion of poor accompanied by the intensity of poverty among those who were less intense poor.

The Planning Commission has updated the poverty lines and poverty ratios for 2011-12 based on the recommendations of the Tendulkar Committee using Household Consumer Expenditure Survey 2011-12 data of the National Sample Survey (NSS) 68th round. Accordingly, with the poverty line at all India level at monthly per capita expenditure (MPCE) of Rs. 816 for rural areas and Rs. 1000 for urban areas in 2011-12, the poverty ratio in the country has declined from 37.2 per cent in 2004-05 to 21.9 per cent in 2011-12 (GoI 2014). Though eradication of multidimensional poverty has been at the centre stage of development agenda, there are only a few studies that estimated multidimensional poverty in India. This paper aims at providing estimates of multidimensional poverty at disaggregated level; in the regions of Karnataka, and decomposing multidimensional poverty dynamics across dimensions and regions. This is an improvement on existing literature as we have measured multidimensional poverty by including direct economic variables rather than economic proxies, incorporated the missing dimensions of work/employment and household environment.

2. Review of Literature

The brief review of the literature clearly indicates the

incidence of poverty, its rate of decline and methodologies of estimation and examining the regional variation of poverty and factors contributing to influence poverty. A study by Dehury and Mohanty, (2015) ^[3] estimates and decomposes the multidimensional poverty dynamics in 84 natural regions of India. Multidimensional poverty is measured in the dimensions of health, knowledge, income, employment and household environment using ten indicators and Alkire-Foster methodology. Results indicate that about half of India's population is multidimensional poor with large regional variations. More than 70 percent of the population is multidimensional poor in the Mahanadi Basin, the southern region of Chhattisgarh and the Vindhya region of Madhya Pradesh, while it is less than 10 percent in the coastal regions of Maharashtra, Delhi, Goa, the mountainous region of Jammu and Kashmir, the Hills region and Plains region of Manipur, Puducherry and Sikkim. The decomposition of MPI indicates that economic dimension alone accounts for about one-third of multidimensional poverty in most of the regions of India. Based on these analyses, the authors suggest target based interventions in the poor regions to reduce poverty and inequality, and achieve the Millennium Development Goals in India. Dayal (1985) ^[2] author identified the regional variation in the rural household's incomes and inequalities in income distribution between and within region in India. He studies that about inter-state difference in the incidence of poverty. The variables are divided into five categories. A few studies on the regional analysis of economic development, socio-economic structure, agricultural growth and productivity. These differences have been analyzed through the use of correlation and regression model based on 15 variables. Eight of the 15 explanatory variables have significant simple correlation with the dependent variable. The 8 variables are intensity of irrigation, Mechanization, agriculture wages and productivity, size of family, Non-agriculture households, dependency ratio and proportion of SC population. Murgai (2003) ^[7] the author attempts to ameliorate the sample size problem by pooling the 1999-2000 NSS 55th round central and state sample data. He used pooled data to examine the regional variation in poverty within Karnataka. The poverty estimates reveal significant geographic imbalances with much higher levels and concentration of poverty in the northern districts. Regional patterns are found to be reasonably consistent with independent correlates of poverty including agriculture wages, employment shares and district domestic productions. Pal (2016) ^[6] found that lacking assets is both a cause and outcome of poverty. Poor health deficient skills and scant access to basic service, assets are also central to coping with shocks and reducing the poverty. The author finds that growth in Per capita income and poverty reduction is inversely related to each others. The relationship between poverty and unemployment is positively related that decline in poverty,

leads to decline in unemployment except Andhra Pradesh, Assam, Bihar, Tamil Nadu and West Bengal where decline in poverty leads to increase in rural unemployment and decline in urban unemployment. Himachal Pradesh shows different results, decline in poverty leads to decline in rural unemployment and increase in urban unemployment.

3. Objectives of the Study

1. To examine the trends and regional variation in poverty in Karnataka.
2. To identify the factors contributing to poverty.
3. To offer policies suggestions for sustained reduction of poverty in Karnataka.

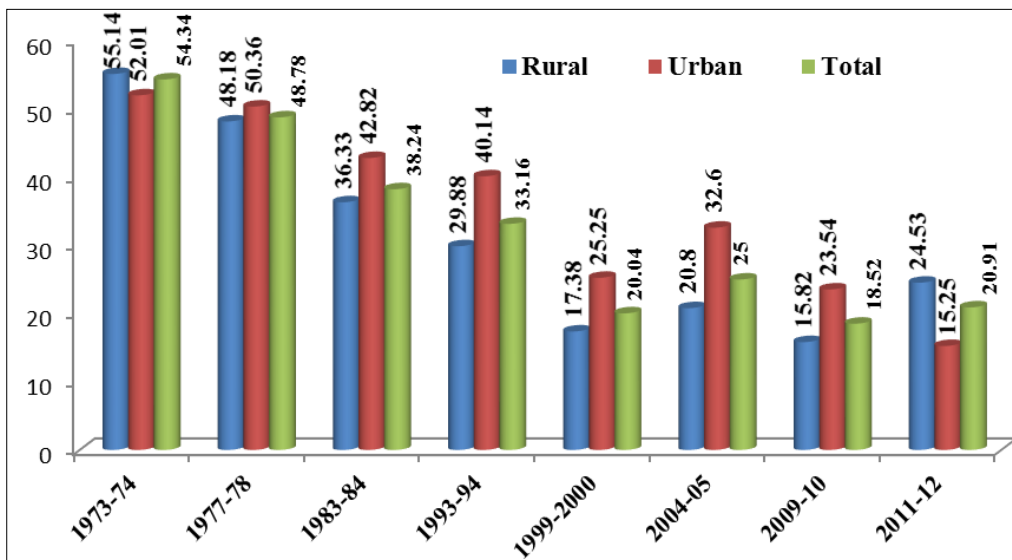
4. Research Methodology

The study is based on secondary data collected from various source like, Annual Reports, Economic Survey of Karnataka (2005 & 2012-13), the statistical tools used like percentage, correlation matrix and agriculture zones wise districts are arid zone, semi arid zone, irrigated zone and coastal zone. The factors contributing to poverty variables are irrigation, non-agriculture workers, agriculture labours, sex ratio, density, literacy, marginal workers, per capita income, share of marginal farmers and share of small farmers.

5. Result and Discussion

5.1 Trends and Regional Variation in Poverty in Karnataka

Nowadays an incidence of poverty has become a major concern in India and also in Karnataka. It is well recognized due to the growth mediated strategy of development and an inclusion of the direct public intervention programmes of the government. Figure 1 provides the data on trends of poverty in Karnataka during 1973-74 to 2011-12. The incidence of poverty has declined by 30.61 percent in rural area at state level, during 1973-74 to 2011-12. The incidence of rural poverty has significantly declined up to 1999-2000. But in 2004-05 the poverty has increased 2.97 percent, after 2009-10 to 2011-12 the poverty has declined by 0.57 percent in rural area. The urban poverty has contentiously declined by 28.47 percent in Karnataka during the period 1973-74 to 2009-10. During the period 2011-12, the poverty ratio has increased by 0.99 percent compared to 2009-10 in urban area. The total incidence of poverty has significantly declined by 33.43 percent in Karnataka during the period 1973-74 to 2011-12. The figure speaks about the regional variation in rural and urban poverty. The urban poverty has been continuously highest compared to rural poverty in Karnataka, except in the years 1973-74 and 2011-12. The incidence of rural poverty has been higher compared to urban poverty during 1973-74 and 2011-12.

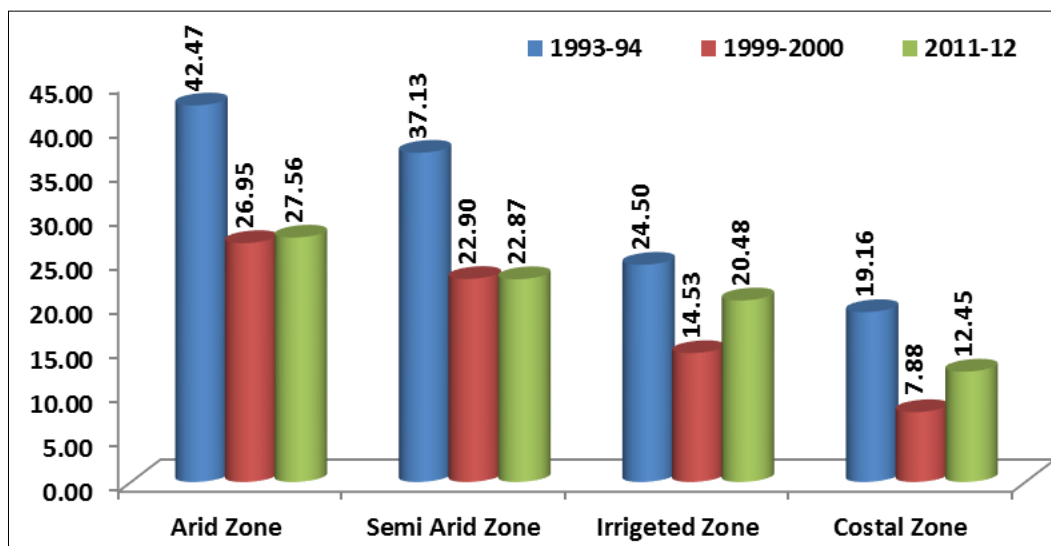


Source: Planning Commission, Government of India.

Fig 1: The Poverty Trends in Karnataka

The zonal wise the incidence of poverty is shows in the figure 2 in Karnataka during the period 1993-94, 1999-2000 and 2011-12. The incidence of poverty is highest in the arid zone districts compared to other zones in Karnataka. The poverty is estimated higher levels zone districts that are part of Yadageri, Bidar, Kalaburgi and Bagalkot having 38 percent, 30.8 percent, 30.5 percent and 29.1 percent respectively in arid zone districts in Karnataka. These districts are backward districts and lack of job opportunities. The arid zone poverty has declined by 14.91 percent during the period 1993-94 to 2011-12. The incidence of poverty is second highest in semi arid zone districts that are Raichur 30.5 percent, Chamarajnagar 30 percent and Chitradurga 27.6percent. The low level incidence of poverty zones are irrigated zone and Costal zone. The incidence of poverty in irrigated zone

districts are Davanagere, Ramanagar, Mandya Mysore and Hassan. The poverty has declined by 10.47 percent during the period 1993-94 to 1999-2000 in irrigated zone districts, after poverty increased by 5.95 percent in irrigated zone during 2011-12. The low levels of poverty in coastal zone districts, that are part of the Udupi, Kodagu, Dhaksina Kannada and Chikkamangalure. The incidence of poverty has declined by 11.28 percent in 1993-94 to 1999-2000, but in 2011-12 poverty ratio has increased by 4.57 percent in coastal zone districts. The reasons for lowest poverty in Irrigation and Coastal zone districts. These districts avail much more irrigation facilities and job opportunities as well as government facilities in these two zones of districts in Karnataka.



Sources: Karnataka Economy Survey 2005 & 2012-13

Fig 2: The zonal-wise incidence and trends of poverty in Karnataka.

Table 1 speaks about the districts wise incidence of poverty in Karnataka during the period 1993-94, 1999-2000 and 2011-12. The Poverty is during the period 1993-94 to 2011-12 change

of percentage 12 percent in whole Karnataka. The districts which have more percentage of change in the poverty are Kolar, Bangalore Urban, Tumkur, Bangalore Rural, Bidar and

Kodagu having 38.5 percent, 29.9 percent, and 27.6 percent, 22.5percent, and 19.2 percent respectively have been change of poverty ratio in Karnataka during the period 1993-94 to 2011-12. The lowest changes of poverty in these districts are

Chikkamangalure 0.9 percentage, Belagavi 1.1 percentage, Hassan 2.8 percentage and Bellary district 3.7 percent change of poverty ratio in Karnataka during 1993-94 to 2011-12.

Table: 1 District wise poverty trends in Karnataka

District	1993-94	1999-2000	2011-12	% change of poverty 1993-94 to 2011-12
Bangalore Urban	31.4	9.9	1.5	29.9
Bangalore Rural	38.2	5.2	15.7	22.5
Belagavi	29.9	17.9	28.8	1.1
Bellary	44.5	33.1	40.8	3.7
Bidar	56.1	30.4	35.1	21
Vijayapur	29.0	32.1	23.1	5.9
Chikkamangalure	15.6	2.30	14.7	0.9
Chitradurga	39.0	16.3	46.7	-7.7
Dhaksina Kannada	8.90	7.40	1.60	7.3
Dharwad	49.8	21.4	34.0	15.8
Kalaburgi	45.5	26.8	37.2	8.3
Hassan	14.4	11.5	11.6	2.8
Kodagu	20.7	4.90	1.50	19.2
Kolar	48.5	41.90	10.0	38.5
Mandya	30.2	16.6	16.4	13.8
Mysore	28.9	15.5	15.5	13.4
Raichur	25.1	45.6	37.7	-12.6
Shivamogga	25.6	8.10	29.3	-3.7
Tumkur	40.6	18.5	13.0	27.6
Uttar kannada	25.0	6.70	19.6	5.4
Yadgir	NA	NA	38.0	0
Chamarajnaragar	NA	NA	1.6	0
Bagalkot	NA	NA	35.8	0
Gadag	NA	NA	21.8	0
Haveri	NA	NA	33.7	0
Chikkaballapura	NA	NA	25.2	0
Ramanagar	NA	NA	10.5	0
Davanagere	NA	NA	23.3	0
Udupi	NA	NA	22.4	0
Koppala	NA	NA	40.7	0
Total	33.2	20.1	21.2	12

Sources: Karnataka Economy Survey 2005 & 2012-13

The table 2 shows the poverty scenario of Karnataka. The incidence of poverty is highest in rural areas districts in Karnataka namely Dharwad, Chitradurga, Koppala and Kalaburgi having 57.3 percent, 48.37 percent, 42 percent and 38.9 percent in rural poverty respectively, during 2011-12 period. As for as highest poverty in urban areas are Bellary, Haveri, Bidar and Bagalkot having 53 percent, 52.2 percent, 45.9 percent and 45 percent respectively during the period 2011-12. The total overall poverty scenario of Karnataka in 2011-12. The highest percent of poverty districts are Chitradurga, Bellary and Koppala having total poverty of 46.7 percent, 40.8 percent and 40.7 percent respectively in 2011-12 periods. The districts which are having lowest percentage of poverty in Karnataka are Kodagu, Bangalore both district having 1.5 percent, Chamarajnaragar and Dhaksina Kannada having 1.6 percent respectively during the period 2011-12. The table further speaks about the incidence of rural poverty in

Karnataka. The lowest poverty districts are Kodagu 1.2 percent, Chamarajnaragar 1.3 percent and Dhaksina Kannada 2.8 percent in rural area during 2011-12. In urban area lowest poverty districts are Bangalore Urban, Dhaksina Kannada and Kodagu having 1.7 percent, 1.9 percent and 2.8 percent respectively in urban area during the period 2011-12. The reasons for the lowest percentage of population below poverty in Bangalore, Kodagu, Chamarajnaragar and Dhaksina Kannada are these districts avail much more facilities from the government as well as corporate sector and job opportunities are very high in these districts. Their standard of living is very high and their income is also high, as compared to the backward districts of Karnataka. The regional variation shows in CV, 0.63percent in rural area and 0.78 percent in urban area. The regional variation poverty has highest in urban area compared to rural poverty in Karnataka.

Table 2: Incidence of Poverty in Karnataka for 2011-12

Districts	Rural	Urban	Total
Belgaum	27.5	32.3	28.8
Bagalkot	32.1	45.0	35.8
Vijayapur	21.4	28.5	23.1
Kalaburgi	38.9	32.0	37.2
Bidar	32.5	45.9	35.1
Raichur	37.6	38.2	37.7
Koppala	42.0	34.6	40.7
Gadag	25.6	15.0	21.8
Dharwad	57.3	15.5	34.0
U Kannada	19.3	20.1	19.6
Haveri	31.3	52.2	33.7
Bellary	33.1	53.0	40.8
Chitradurga	48.3	40.4	46.7
Davanagere	23.0	23.8	23.3
Shivamogga	32.5	22.3	29.3
Udupi	22.7	21.4	22.4
Chikmangalore	10.4	24.6	14.7
Tumkur	14.4	5.9	13.0
Kolar	9.8	11.2	10.0
Bangalore Urban	00	1.7	1.5
Bangalore Rural	19.0	00	15.7
Mandya	18.9	4.1	16.4
Hassan	11.3	13.9	11.6
D Kannada	1.5	1.9	1.6
Kodagu	1.2	2.8	1.5
Mysore	20.7	7.0	15.5
Chamarajnar	1.3	4.1	1.6
Ramanagar	11.7	4.5	10.5
Total	24.5	15.3	21.2
CV	0.63	0.78	0.60

Sources: Karnataka Economy Survey 2005 & 2012-13

6. Factors Contributing to Poverty in Karnataka

A clear understanding of such regional variance in poverty, in this section an attempt has been made to account for such difference and relationship by using the correlation matrix. The table 3 shows the correlation matrix of the factors contributing to influence the poverty in Karnataka. Four of the 10 explanatory variables have significant simple correlation with the dependent variable. This has significant correlation with poverty. The four variables are irrigation, agriculture labours, marginal workers and share of small farmers. These

variables have 0.05 levels of significant correlations with poverty. Share of small farmer’s variable is highly significant and influenced to reduce the poverty and Per capita income is highly correlated with agriculture labours. Another six variables are non-agriculture workers, density, sex ratio, literacy, per capita income, and share of marginal workers. These variables are negatively insignificantly correlated with poverty and share of marginal workers is highly insignificantly correlated with poverty in Karnataka.

Table 3: Correlation matrix of poverty in Karnataka

Sl. No	Variables	1	2	3	4	5	6	7	8	9	10	11
1	Poverty	1										
2	Irrigation	.077	1									
3	Non-agl Workers	-.560**	-.212	1								
4	Agriculture labours	.656**	.105	-.837**	1							
5	Density	-.321	-.144	.509**	-.423*	1						
6	Sex Ratio	-.144	.207	.205	-.264	-.461*	1					
7	Literacy	-.446*	-.116	.771**	-.779**	.358	.199	1				
8	Marginal Workers	.483*	.042	-.807**	.666**	-.371	-.300	-.712**	1			
9	Per Capita Income	-.486*	-.217	.829**	-.720**	.827**	-.165	.620**	-.738**	1		
10	% of Marginal farmers	-.634**	.198	.462*	-.681**	.236	.302	.512**	-.302	.379	1	
11	% of Small Farmers	.662**	-.150	-.595**	.787**	-.264	-.361	-.572**	.456*	-.495**	-.947**	1

7. Conclusion and Policy Suggestions

The poverty is more than inadequate income; it is also vulnerability and a lack of voice, powers and representation. With this regional variance view of poverty comes greater

complexity in poverty reduction strategies. Because more factors such as social and cultural forces need to be taken into account. The way to deal with this complexity is through empowerment and participation. While economic growth is

systematically associated with poverty reduction the rate at which growth translates into lower poverty depends on the initial level of inequality in the distribution of income.

Increase in per capita food production to reduce the poverty in Karnataka. The rate of growth production of food grains as a whole has barely kept ahead of population growth. Agriculture land reforms in India condition radical socio-economic changes are required to ensure the self reliant, long term growth of economy. These changes are helpful to poor and middle people. To develop the irrigation facilities. The massive investment and expansion programme in the public sector. The government is spending on the education to reduce the poverty in Karnataka. The education will empower them to engage in better job's, which in turn would help them come above the poverty line. In this regard women education is also considered very important. Educated mother can monitor the academic performance of their children and help the country eradicate illiterate and poverty. Now day's women have been treated as a burden to the society. They were deprived of equal opportunity for education, food, Nutrition and economic participation leading to the situation of 'Feminization of poor'. Women empowerment and education would strengthen them to bring economic benefits both at individual and national level. The government and social organization are taking significant steps towards creating awareness regarding the importance of education of girl-child. The government introduces family planning schemes to below poverty line people.

This paper shows the regional variance of poverty reduction in Karnataka. The Karnataka state has initiated various poverty alleviation programmes in both rural and urban areas. These programmes have resulted in marked decline in the poverty in Karnataka. The state has also established housing schemes to provide rural and urban people. The government is spending to productivity enhancing investment such as agricultural development, irrigation and rural infrastructure to reduce the poverty. Government expenditure on roads and education has by far the largest impacts on rural and urban poverty reduction and growth in agricultural productivity in rural area. In order to sustain the existing growth in the reduction of poverty, proper implementation of different programmes is necessary. Promotion of livelihood opportunities, through modernizing agriculture, establishing rural industries, establishment skill development training, improve women empowerment, improve the education in rural and urban area and skill up gradation be considered as effective strategies.

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