



A Study of Linkage Between Education and Poverty in India

KEYWORDS

Education Elasticity, Literacy Rate, Poverty, India

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ABSTRACT *Better educated people have a greater probability of being employed, are economically more productive, and therefore earn higher income. Investment in human capital in general and education in particular are essential for overall development and poverty reduction in any country including India. Education stimulates economic growth and development of poor countries, when both the quantity and the quality of education are considered. This also makes it possible for individuals to earn more. Recently, education has been considered as a primary weapon against poverty in any country in general and India in particular. Keeping in above, present paper is an attempt to investigate the linkage between education and poverty in India. For this, education elasticity of poverty is calculated by taking literacy rate as a proxy for education & Head count ratio for poverty. And paper concludes that education improves knowledge and skill and helps poor people to pull them out of poverty.*

I. INTRODUCTION

Recently, Indian economy is facing various problems and the problem of poverty is one of them. The existence of mass poverty in India is the cause of concern. Since independence, economic structure of India has changed completely in all respects but still India is a home of 22 per cent of the world's poor. Such a high incidence of poverty is a matter of concern in view of the fact that poverty eradication has been one of the major objectives of the development planning process. Investment in human capital in general and education in particular are essential for economic growth and poverty reduction in any country including India.

The inter-relationship between education and poverty can be understood in two ways. Firstly, investment in education increases the skills and productivity of poor households. It enhances the income level as well as the overall welfare of the population. Secondly, poverty may constitute a major constraint to educational attainment.

Keeping in above backdrop, the present paper examines the linkage between education and poverty in India. Section II is dedicated on the review of literature on the present issue. Section III describes the source of data & methodology. Section IV presents the Poverty and Education scenario in India; Section V makes an analysis of education elasticity of poverty in India. And lastly, Section VI concludes the study with policy implications.

II. LITERATURE REVIEW

A number of studies have analyzed the way human capital accumulation confers benefits to individuals, enterprises and societies (Becker, 1975; Psacharopoulos 1994, 2002; Blundell et al. 1999; Barro, 2001).

Londono (1996) argues that inadequate education has been the most important factor holding back Latin American economic growth and thereby sustaining high levels of inequality and poverty. In the labour market, higher wages for more educated people may result from higher productivity, but also perhaps from the fact that education may act as a signal of ability to employers, enabling the better educated to obtain more lucrative jobs.

In addition, investment in human capital has also been related to a wide range of non-economic benefits arising from better educated people and higher knowledge in society.

Without human capital formulation the goal of development or poverty reduction is futile. The prominent approaches of development like the human capital approach, the basic needs approach, the human development approach and the capability approach recognize the inverse relation of education and human poverty. Apart from concentrating on the inverse relation of education and poverty, a mutually reinforcing relation is present between education poverty (lack of education) and income poverty because income deprivation restricts individuals from attaining education and absence of education cause low-income levels (Tilak, 2002; Roberts, 2003).

The impact of education on earnings and thus on poverty works largely through the labour market, though education can also contribute to productivity in other areas, such as peasant farming (Orazem, Glewwe & Patrinos, 2007: 5).

In light of above literature, the present paper attempts to understand the linkage between education and poverty in India.

III. DATA & METHODOLOGY

The present study is exclusively based on secondary data which has been collected from Planning Commission, Census of India and various issues of Economic survey of India. The study considers the time period from 1973-74 to 2004-05 and 15 major states of India.

To analyze the linkage between education and poverty, the elasticity concept has used in the name of "Education Elasticity of Poverty". Education elasticity of poverty is the percentage change in poverty due to percentage change in education. There are various indicators available for measuring poverty and education but among those the most sensitive indicators for poverty is Headcount Ratio and for education is literacy rate have chosen for this analysis. The equation for education elasticity of poverty is

Education Elasticity of Poverty =

$$= \frac{\% \text{age Change in Poverty}}{\% \text{age Change in Education}} \text{ Or}$$

$$= \frac{\partial \text{Pov}}{\partial \text{Edu}} \times \frac{\text{Edu}}{\text{Pov}}$$

Where, ∂Pov = Change in Poverty

Pov = Initial Poverty

∂Edu = Change in education (Literacy rate)

Edu = Initial Education (Literacy Rate)

As we know that there is inverse relationship between the education and poverty so we can ignore negative sign.

IV. POVERTY & EDUCATION SCENARIO IN INDIA

"Inadequate education is one of the most powerful determinants of poverty, and unequal access to education opportunity is a strongly correlated with income inequality.

The twin challenges of growth and poverty reduction have been key policy concerns for India since independence. High rates of economic growth have finally been achieved and have exceeded expectations. The country is now categorized as 'lower-middle-income,' up from 'low-income' previously.

Over the period of time, government has made several efforts to reduce poverty in India but still it is a big challenge. On the other hand, the government has given considerable emphasis on literacy, school enrolment etc.

The following **table 1** shows the poverty trends in terms of poverty ratio & number of poor in India.

TABLE 1: POVERTY RATIO & NUMBER OF POOR IN INDIA

YEAR	POVERTY RATIO (%)			NUMBER OF POOR (In million)		
	RURAL	URBAN	TOTAL	RURAL	URBAN	TOTAL
1973-74	56.4	49.0	54.9	261.3	60.0	321.3
1977-78	53.1	45.2	51.3	264.3	64.6	328.9
1983-84	45.6	40.8	44.5	252.0	70.9	322.9
1987-88	39.1	38.2	38.9	231.9	75.2	307.0
1993-94	37.3	32.4	36.0	244.0	76.3	320.4
1999-00	27.1	23.6	26.1	193.2	67.0	260.2
2004-05*(URP)	28.3	25.7	27.5	220.9	80.8	301.7
2004-05#(MRP)	21.8	21.7	21.8	170.3	68.2	238.5

Source: Planning Commission Estimates.

Note: * Comparable with 1993-94 estimates;

Comparable with 1999-00 estimates.

The measurement of poverty is done by National Sample Survey Organization (NSSO). The latest data is based on its 61st round survey in 2004-2005 using two reference periods called Uniform Recall Period (URP) – 30 days and Mixed Recall Period (MRP) using 365 day recall /reference period for five infrequently purchased non food items – clothing, footwear, durable goods, education and institutional medical expenses.

It is clear from the table that poverty has declined over the period of time and the reduction has been well below what was anticipated.

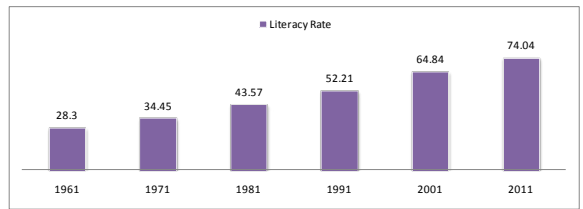
Official statistics show that poverty measured in terms of headcount ratio (HCR) declined from 54.9 per cent in 1973-74 to 27.5 per cent in 2004-05, but the pace of poverty reduction over the past decade has been slow. India has the largest number of poor people in the world, at an estimated 301.7 million in 2004-05, or 27.5% of the population.

According to 61st Round of NSSO, the poverty ratio in India is 27.5 per cent consisting of 28.3 per cent in rural and 25.7 in

urban areas based on URP. The poverty ratio based on MRP is 21.8 per cent consisting of 21.8 per cent in rural and 21.7 per cent in urban areas.

Figure 1 describes the literacy rate in India. In 1961 literacy rate was 28.3 per cent and it increases to 74.04 per cent in 2011.

FIGURE 1: LITERACY RATE IN INDIA



Source: Census of India.

V. RESULTS & ANALYSIS

It is clear from various studies, that education helps in overcome the poverty & there is inverse relation between education attainment and poverty reduction. It is clear from table 2 that, in 1973-74, the top five states with minimum poverty ratio were Punjab, Haryana, Rajasthan, Gujarat and Andhra Pradesh. In 2004-05 Kerala is added against Rajasthan in these states. The bottom five states having highest poverty ratio in 1973-74 were Orissa, West Bengal, Madhya Pradesh, Bihar and Kerala, but in 2004-05, Maharashtra and Uttar Pradesh are included in these states against Kerala and West Bengal.

In the same way, in 1973-74, literacy rate was high in Kerala, Maharashtra, Tamil Nadu, Gujarat and West Bengal but in 2004-05, Punjab is replaced for West Bengal in these top five States. Bottom five states with low literacy rate in 1973-74 as well as in 2004-05 are Rajasthan, Bihar, Uttar Pradesh, Madhya Pradesh and Andhra Pradesh but during this time period their rank has changed. Now these are Bihar, Uttar Pradesh, Rajasthan Andhra Pradesh and Madhya Pradesh. During the time period 1973-74 to 2004-05 percentage change in poverty is highest in Punjab, Kerala, Andhra Pradesh, Gujarat and Haryana. While it is lowest in Orissa, Bihar, Madhya Pradesh, Maharashtra and Uttar Pradesh. During the same time period, percentage change in education is highest in Rajasthan, Madhya Pradesh, Uttar Pradesh, Bihar and Andhra Pradesh. It is lowest in Kerala, Tamil Nadu, Gujarat, Maharashtra and West Bengal.

In table 2, Education Elasticity of Poverty is highest in Kerala (2.809), Tamil Nadu (1.147), Gujarat (1.130), Punjab (0.969) and West Bengal (0.875) and lowest in states like Madhya Pradesh (0.361), Rajasthan (0.392), Bihar (0.407), Orissa (0.421) and Uttar Pradesh (0.425). This indicates that Kerala has high literacy rate so it has reduced poverty at large extent. It is lowest in Madhya Pradesh as here poverty as well as literacy rate is low. But in some states like Madhya Pradesh, Uttar Pradesh and Rajasthan, percentage change in literacy is high but percentage change in poverty is low, the reason being is that, here poverty rate is initially very high and education level is very low. It may be due to the fact that poverty reduction not only depends on literacy but also depends on standard of education.

VI. CONCLUSIONS WITH POLICY IMPLICATIONS

In the nut-shell, the level of poverty is inversely related with education level (literacy rate). Investment in education is essential for economic growth and poverty reduction in any country including India. Education improves knowledge and skill and helps poor people to pull them out of poverty. Various studies indicate that education help in reduction of poverty in different developing countries as well as in India also. Kerala has achieved a lot in the form of poverty reduction.

Not merely provision of education is sufficient for removal of poverty but standard of education is also one of the key elements. Without good textbooks or classroom resources, more teachers cannot necessarily improve the quality of learning. To attain over all development of a country, India has to qualitatively strengthen her education and should en-

sure the inclusive growth with poverty reduction. More and better education improves country's economic growth and there by generates incomes. Education brings social benefits that improve the situation of the poor. Last but not least, better education can promotes economic growth which can reduce poverty drastically.

TABLE: 2 EDUCATION ELASTICITY OF POVERTY IN INDIA (IN MAJOR STATES)

S.NO.	STATES	POVERTY RATIO		LITERACY RATE		∂ POV	∂ EDU	∂ POV/ POV	EDU/ ∂ EDU	EDUCATION ELASTICITY OF POV- ERTY	RANK IN EDUCATION ELASTICITY OF POVERTY
		1973-74	2004-05	1973-74	2004-05						
1.	Kerala	59.74	11.40	71.54	92.15	-48.34	20.61	-0.809	3.471	-2.808	I
2.	Tamil Nadu	56.51	17.80	47.20	75.40	-38.71	28.20	-0.685	1.674	-1.147	II
3.	Gujarat	47.21	12.50	43.45	71.72	-34.71	28.27	-0.735	1.537	-1.130	III
4.	Punjab	28.08	5.20	38.99	71.77	-22.88	32.78	-0.815	1.189	-0.969	IV
5.	West Bengal	63.69	20.60	40.35	71.55	-43.09	31.20	-0.677	1.294	-0.875	V
6.	Karnataka	54.34	17.40	38.25	69.73	-36.94	31.48	-0.680	1.215	-0.826	VI
7.	Maharashtra	52.94	25.20	47.33	78.48	-27.74	31.15	-0.524	1.520	-0.796	VII
8.	Assam	51.23	15.00	34.27	67.09	-36.23	32.82	-0.707	1.044	-0.738	VIII
9.	Andhra Pradesh	49.25	11.10	29.63	62.25	-38.15	32.62	-0.775	0.908	-0.704	IX
10.	Haryana	35.24	9.90	34.30	70.84	-25.34	36.54	-0.719	0.939	-0.675	X
11.	Uttar Pradesh	56.98	25.50	26.63	61.25	-31.48	34.62	-0.552	0.769	-0.424	XI
12.	Orissa	66.24	39.90	34.22	66.52	-26.34	32.30	-0.398	1.059	-0.421	XII
13.	Bihar	61.78	32.50	24.73	53.50	-29.28	28.77	-0.474	0.860	-0.407	XIII
14.	Rajasthan	46.30	17.50	23.73	61.34	-28.80	37.61	-0.622	0.631	-0.392	XIV
15.	Madhya Pradesh	61.90	32.40	27.97	64.87	-29.50	36.90	-0.477	0.758	-0.361	XV
	ALL INDIA	54.88	21.80	35.85	67.80	-33.08	31.95	-0.603	1.122	-0.676	

Note: Education Elasticity of Poverty is based on Authors Calculation.

Source: Planning Commission of India, Census of India & Various Issues of Economic Survey.

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