Trade-off between Poverty and Unemployment: An Empirical Evidence from the UT - Jammu and Kashmir, India

Dr Tsering Yangzom¹

¹ P.G.Department of Economics, University of Jammu, Jammu and Kashmir-UT, INDIA

Abstract:

The problem of poverty and unemployment being faced by almost every third world country and India is not an exception. It is believed that both are positively and directly linked as both tend to move or progresses in same direction. However, there are many existing literatures which argue that these two are not positively related all the time. There exists a trade-off between the two. Therefore, the paper aims at proving that these two do not go hand in hand. Accordingly, there are three main objectives of the paper. Firstly, to explore the relationship between poverty and unemployment in the study area i.e., the UT -Jammu and Kashmir. Secondly, to assess the impact of economic development (per capita income) on the poverty and unemployment. Lastly, to suggest policy implications. The data use for the paper is secondary based (especially NSSO's) and methodology used are correlation test. The paper proved that there is an existence of trade-off between poverty and unemployment in dicator has a stronger association with the poverty than unemployment. The policy implication for the government is that the poverty and unemployment should treat separately. In other words, there should be separate programmes for alleviation of poverty and reduction of unemployment.

Key Word: Poverty; Unemployment; Trade-off; Jammu & Kashmir; Economic Development Indicators

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I. Introduction

The problem of poverty and unemployment are bring faced by almost every third world country and India is not an exception. It is believed that these two always go hand in hand. Meaning thereby, these two are positively and directly correlated. For instance, Agenor (2004) argued that the poverty and unemployment don't go hand in hand as there exists trade-off between poverty and unemployment. He quoted, "In reality, *unemployment reduction* and *poverty alleviation* are often viewed as complementary policy goals, and thus involving no trade-offs". However, there are many existing literatures which argue otherwise and it has been witnessed from various studies on the topic that these two are not complementary all the time. Therefore, the study is attempted to proof that there are trade-offs between the two. This can be done in the context of working poor population. This section of the population is employed technically but due to their low level of salaries push them in to the poverty trap.

II. Literature Review

Lal (1972)has observed that in most of the developing countries (including India), the most of the income earners were self-employed people, and argued that in such case the measurement of involuntary unemployment and also the identification of unemployed among poor has no significant meaning. Thus, he stated that considering the poverty and unemployment as one is a false analogy in developing countries. He stressed that problem of unemployment in India was mainly due to income distribution and hence poverty.

Oreibi (1977) has examined the situation of rural employment and poverty in general and in terms of India particular. The author assessed the cause and effect between the employment and poverty mainly in rural areas. The author states that a race has been witnessed between food production and population growth mostly in the developing countries. So, he further explained that this further led to the difficulties to maintain balance between both. The imbalances between growing population and resources have been the prime factor in causing unemployment first and then gradually poverty. Therefore, he concluded that poor/underutilisation of recourses, human and natural both has been stated to be the main reason for poverty. He further stressed that the scarcity of resources has never been the reason for above said problem in developing countries.

Lakdawala (1978) has assessed the connections between growth, poverty and unemployment in India. The author stated that there is a direct link between consumption and unemployment in the rural areas in the paper. Meaning thereby, there is an indirect link between level of poverty and unemployment in the rural areas. Therefore, the author revealed that in rural areas he has witnessed that the level of unemployment does not vary inversely with the level of consumption. Therefore, the paper explained that there was positive relation between the rural poverty and rural unemployment in the country. However, he further concluded that though unemployment and underemployment are remained to be grave problems, but the problem of poverty has been more severe than above two.

Visaria (1980) examined the association between poverty and unemployment in India. For this he used 27th Round NSS data and he observed that there was an association between the two from the findings. He stated that, "there is a clear association between poverty and unemployment in India, although poverty is certainly more widespread than unemployment". The nature of association between the two (MPCE and unemployment rate) was an inverse one. The indices used for the measurement were unemployment rate and monthly per capita expenditure. However, he further concluded that in terms of Usual and current based unemployment, these two do not show any clear and consistent association with the MPCE. Moreover, he also observed more or less a steady inverse relation between the MPCE and person days-based unemployment. There have been a few exceptions like labour force in the bottom deciles of MPCE has significant positive association with the incidence of unemployment and underemployment. The variations in the MPCE are much higher than the interdeciles variations in unemployment. He mentioned that there exist a clear association between the poverty and unemployment, though the poverty is more widespread than unemployment.

Mehra (1983) aimed at analysing the poverty in the rural Punjab. He focussed only on economic aspects of the rural poverty. He happened to see the unemployment in the rural Punjab also. The study found a positive correlation existed between the poverty and underemployment in Punjab, but it is very weak. In terms of the rural Punjab, the study witnessed a negative correlation between the two (extent of poverty and underemployment). It has also been found that an inverse correlation existed between the extent of poverty and inequalities in the state.

Dev (2000) focussed to study the impact of economic growth on various variables namely poverty, unemployment and income distribution. The time period taken for the study was both pre and post reform period. The author argued that there has been growing disparities or rural and urban poverty in the post reform period. The paper has witnessed that there was a sharp decline in the overall unemployment in general and the decline was the sharpest in female unemployment in urban areas in particular. Moreover, so far as the educated unemployment is concerned, then the paper observed that the unemployment rate was higher in rural areas than in urban areas. On the other hand, talking of graduate unemployment in particular, then it was found that the rate was the higher for female graduates irrespective of sectors. As far as the reduction of poverty is concerned, it was found that the rural poverty has not experienced any reduction in the 1990's while, the urban poverty has decline in the same period. Across states analysis, it was found that poorer states like Bihar, Madhya Pradesh, Rajasthan, Uttar Pradesh and Orissa experienced no decline in poverty ratios while, richer states like Punjab, Gujarat, Andhra Pradesh, Karnataka, Kerala, Maharashtra, Tamil Nadu and West Bengal experienced a decline. The agricultural growth has found out to be one of the important determinants of rural poverty. Among sectors, the agriculture sector has larger number of poor than the rest.

Saunders (2002) has analysed the direct and indirect effects of unemployment on poverty and inequality. He discussed the relationship between the poverty and unemployment, and its complexities. The author found that increased unemployment either directly or indirectly leads to higher poverty.

Agenor (2004) the main theme behind the study was to analyse the trade-offs between the poverty and unemployment across the globe. He quoted, "In reality, unemployment reduction and poverty alleviation are often viewed as complementary policy goals, and thus as involving no trade-offs". He argued that there may be a number of reasons for the existence of trade-off between the two but not always the case. He conducted the research and observed from the findings that the vulnerable groups like young people, older workers, women and the unskilled workers have been benefitted very little from development of macro-economic condition in recent years, so finally end up in low paid jobs. For instance, in case of most of Latin America countries, there has been a surge in the working poor population (are those who earn less than \$1.08 a day- international poverty line) and their share into the total employment of the individual country is very huge. As far as Sub-Saharan African and South Asia countries are concerned, no doubt the absolute number of unemployment remains a relatively low. However, while talking of the share of the working poor to the total employment, it touched nearly 40.00 percent in both the continents. And it touched even 50.00 percent in case of India. So, from the results the author observed that there has been a high potential to exist a trade-off between the poverty alleviation and unemployment reduction in the world. And he further stressed that the higher growth rates of output and job as well were needed to curb the problems of unemployment and poverty, by absorbing the increased supply of labour. Hence, further reduces the poverty rate by increasing the standard of livings. Hence,

the author had concluded that to the extent that such trade-offs exist, the functioning of different social welfare and its nature becomes very significant in showing the path for a given policy.

Datt (2008)examined the unemployment rate between genders, rural and urban areas, across different household income groups and across four categories of measurement. In regard to the unemployment rates across different household monthly per capita expenditure, the paper observed that as per Usual status approach, there has been a positive relation between unemployment and the monthly per capita expenditure irrespective of rural and urban areas. But, the relation between the two was not positive in case of current daily status. This was explained by the author that poor cannot afford to remain unemployed for long time. Hence, they had to involve themselves with low paid job. Therefore, the author concluded that India has been successful in increasing the GDP growth rate but failed to reduce poverty and unemployment effectively in the post reform period. Therefore, the summary of the literature reviews:

1. Association between the poverty and unemployment: a positive relationship between the two and tradeoff does exist between the two. In terms of cause-and-effect relation between two, it is witnessed that high prevalence of unemployment leads to high poverty incidence.

2. Poverty and unemployment are not because of the "idleness" of the poor (an orthodox view), rather due to faulty income distribution.

III. Research Objectives& Hypotheses

The paper tries to study the inter-relationship between poverty and unemployment and accordingly the following are the objectives:

1. To assess the inter-relationship between poverty and unemployment in the study area.

2. To explore the inter-relationship between poverty and unemployment with the economic development indicator

3. To suggest policy implications

Thus, based on these objectives, the study formulated the followings hypotheses (alternative):

 $H_{l} :$ There is significant trade-off between poverty and unemployment

H₂: Economic development has significant association with poverty

H₃: Economic development has significant association with unemployment

IV. Data and Research Methodology

The study is based on concurrent research design where both descriptive analysis and the causal relationship have been studied. The study used secondary data and the data was extracted from the 61st Round of National Sample Survey Organisation, MOSPI, Government of India. The study used unit level data and selected poor and unemployed individuals in the region. Then, their poverty rates and unemployment rates were calculated on the basis of methods, Uniform recall period and Usual Preference Status respectively. The study used a cross sectional data of 1,046,088 and 241,709 poor individuals from rural and urban areas respectively to calculate the poverty rate. The poverty rate hasshown with Head Count Ratio (HCR).

The trade-off relationship between poverty and unemployment in the state, has assessed by estimating the correlation between HCR and Unemployment Rate (UR). Moreover, these estimates have been presented for rural and urban area separately. The statistical tools used for the descriptive analysis are percentages and for the causal analysis, the study uses Correlation test (*Spearman's Rank Correlation method*). This method was used to examine relationships between two or more quantitative/numerical variables. They measure the strength and direction of a relationship between variables. It ranges from negative (-1) to positive (+1) coefficient values. Sometimes the coefficient was denoted with a Greek letter rho (ρ). A negative correlation indicates that high values on one variable are associated with low values of the other. A positive correlation indicates that high values on the one variable are associated with high values of the other. The p-values tell you whether the relationship or correlations between the variables were statistically significant provided p < 0.05.

Where the level of interrelationship between the poverty, unemployment and economic development, is also studied by using time series data and the *Graphs* were used to demonstrate the causal relationship and data is collected from the NSSO's rounds in 1993-94, 1999-00, 2004-05, 2009-10 and 2011-12. The measure used to calculate unemployment rate were Usual Principal + Subsidiary status (UPSS), Current Daily Status (CDS) and Current Weekly Status (CWS).

Poverty and Unemployment Trade-offs: The main motive behind this, is to check the degree and nature of relationship between the two. So, the study used these estimates and checks the relationship across districts, social category, National Sample Survey (NSS) regions and religions. The results have been presented in the following tables. The Table 1 shows the Spearman's rank correlation coefficients between poverty and unemployment across districts in rural and urban sector separately. Contrary to our expectation and general belief, the values of rho (ρ) under both the sectors were in negative, meaning thereby an inverse relationship between the two. More precisely,

DISTRICTS		RAL	URBAN					
	PR (URP)	Ranks	UR (UPS)	Ranks	PR (URP)	Ranks	UR (UPS)	Ranks
Kupwara	23.92	4	1.20	6	0.00	9	0.00	8.5
Baramulla	27.69	2	1.00	7	18.78	1	1.66	7
Srinagar	23.94	3	2.41	4	10.71	3	3.74	6
Budgam	18.10	5	3.59	3	7.17	4	0.00	8.5
Pulwama	8.86	9	2.05	5	6.29	6	4.13	5
Anantnag	14.07	6	0.61	8	2.4	8	7.62	2
Udhampur	54.54	1	0.00	9	13.2	2	5.06	3
Jammu	9.37	8	6.27	1	7.96	5	9.30	1
Kathua	13.95	7	4.75	2	2.46	7	4.92	4

 Table 1:

 Results of Spearman's Rank Correlation between Poverty and Unemployment across Districts

Note: PR=Poverty Ratio (i.e., Head Count Ratio), UR=Unemployment Rate **Source:** Authors' Calculations.

the calculated ρ . These results depict that there exists a trade-off between the two, as mentioned above by *Agenor (2005)*. However, by looking at the degree of the relationship, it was a weak one and moreover we have run this test across the districts so far.

Thus, according to the paper, there exists a trade-off between poverty and unemployment across districts of the UT-Jammu and Kashmir, although it was not that strong (only medium) one. Anyhow further investigation was needed across the social groups of UT. Therefore, the study has ran this test across social groups of the state under Table 2 and to a surprise the results were according to general belief that there exists a positive relationship between poverty and unemployment across social groups as far as rural area is concerned. The ρ value is +0.80 and moreover the degree is very strong. Therefore, according to the present study there exist a positive coefficient of rank correlation between poverty and unemployment across social groups which are rural based. While, in case of urban area there exists a trade-off between these two though the degree was weak as the ρ value is -0.33. Across NSS regions, the same procedure has been adopted across NSS regions under Table 3 and result showed a trade-off between the two.

 Table 2:

 Results of Spearman's Rank Correlation between Poverty and Unemployment across Social groups

CATEGORY		RUI	RAL			URI	BAN	
	PR (URP)	Ranks	UR (UPS)	Ranks	PR (URP)	Ranks	UR (UPS)	Ranks
ST	41.28	1	2.92	2	26.52	1	0.00	4
SC	22.1	3	2.56	3	17.49	2	2.26	3
OBC	26.73	2	3.15	1	5.92	4	7.54	1
Others	18.88	4	2.44	4	9.22	3	5.51	2

Note: PR=Poverty Ratio (i.e., Head Count Ratio), UR=Unemployment Rate **Source:** Authors' Calculations.

Table 3:								
Result of Spearman	's Rank Correlation between Povert	y and Unemployment across NSS regions						
NSS REGIONS	RURAL	URBAN						

NSS REGIONS		RUI	RAL	URBAN				
	PR (URP)	Ranks	UR (UPS)	Ranks	PR (URP)	Ranks	UR (UPS)	Ranks
Mountainous	5.77	1	10.95	3	8.87	1	7.34	3
Outerhills	0.00	3	54.54	1	4.31	2	10.86	1
Jhelumvalley	1.62	2	18.17	2	3.63	4	10.60	2

Source: Authors' Calculations.

 Table 4:

 Result of Spearman's Rank Correlation between Poverty and Unemployment across Religion groups

 DELICIONS
 UPPAN

RELIGIONS		KUI	KAL			UKI	SAN	
	PR (URP)	Ranks	UR (UPS)	Ranks	PR (URP)	Ranks	UR (UPS)	Ranks
Hinduism	23.65	2	4.27	2	5.45	3	7.43	2
Islam	19.33	3	1.58	3	10.45	2	3.79	3
Christianity	88.18	1	0.00	4	96.86	1	0.00	4
Sikhism	3.57	4	6.22	1	0.81	4	18.39	1
A (1) C 1	1.7							

Source: Authors' Calculations.

Moreover, under rural areas the relationship was a perfectly negative (ρ = -1) and a medium negative under urban areas (ρ = -0.5). The relationship between the two across different religions of the state presented in Table 4 was negative in rural areas and no relationship under urban areas. The ρ values were -0.46 and 0 in rural and urban areas respectively. Therefore, it is concluded that the nature of relationships between poverty and

unemployment shows a very different result. Hence, it is stated that there is not any specific correlation between the two.

esults of Corre	elation Coefficie	Tabl ents between l		nemployment	at District lev
VARIABLES					Urban PR (MRP)
Rural UR (UPS)	Pearson Correlation	610	-	654	-
Rural UK (UPS)	p-value	.081	-	.056	-
	Pearson Correlation	-	.097	-	.156
Urban UR (UPS)	p-value	-	.790	-	.668
	Pearson Correlation	654	-	700*	-
Rural UR (UPSS)	p-value	.056	-	.036	-
Urban UR (UPSS)	Pearson Correlation	-	.085	-	.155
Urball UK (UP55)	p-value	-	.815	-	.669
Rural UR (CWS)	Pearson Correlation	555	-	513	-
Kurai UK (UWS)	p-value	.121	-	.158	-
Urban UR (CWS)	Pearson Correlation	-	.075	-	.120
Urban UK (CWS)	p-value	-	.838	-	.742
Rural UR (CDS)	Pearson Correlation	575	-	531	-
	p-value	.105	-	.141	-
Urban UP (CDS)	Pearson Correlation	-	.215	-	.180
Urban UR (CDS)	p-value	-	.551	-	.619

Note:* Correlation is Significant at the 0.05 level (2-tailed) Source: Author's calculations

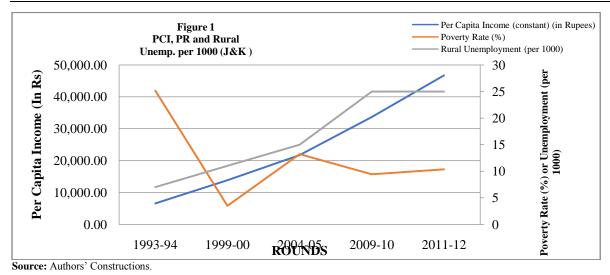
However, the study also checked the status of relationship between the two with the help of Pearson correlation coefficients by using the data at district level. The results have been presented in the Table 5 and it supports the view that poverty and unemployment are negatively correlated except for a few and it was statistically significant. This is the status of relationship between MRP based poverty and UPSS based unemployment in rural area only as the r=-.700 at p value=.036. Thus, it is concluded on the basis of above values that there exists a trade-off between the poverty and unemployment in the state.

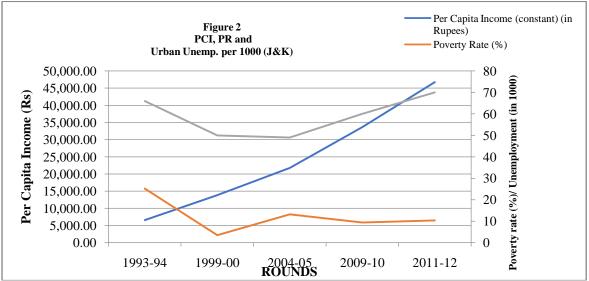
Poverty, Unemployment and Economic Development: The relationships shared between the three: poverty, unemployment and economic development are not simple. According to general belief, as economy grows or economic development takes place the poverty and unemployment tend to reduce. However, there are many existing studies which supports that this is not the case always. Sometimes given the different factors the poverty and unemployment do not go hand in hand or say economic development does not help in reducing these two menaces of the society simultaneously. Therefore, the study also tried to see the status of relationship at the state level. The results of the analyses have been shown with the help of table and graphs.

ASSUC	Association between Fer Capita income (constant), Foverty Kate and Unemployment (J&K)									
Rounds/Years	Per Capita Income (constant) (in	Poverty Rate	Rural Unemployment (per	Urban Unemployment (per						
Koullus/ 1 ears	Rupees)	(%)	1000)	1000)						
1993-94	6,543.00	25.17	7	66						
1999-00	13,816.00	3.48	11	50						
2004-05	21,734.00	13.2	15	49						
2009-10	33,650.00	9.4	25	60						
2011-12	46,734.00	10.35	25	70						

Table 6 Association between Per Canita Income (constant) Poverty Rate and Unemployment (L&K)

Source: RBI, Government of India.





Source: Authors' Constructions.

The Table 6shows the estimates for the state's per capita income (constant), poverty rate and unemployment and Figures [1 & 2]show the association between the three with the trend line for almost two decades (1993-94 to 2011-12). The Figure 1 tells that the poverty tends to fall over the period, starting with 25.17 percent in 1993-94 and ending with 10.35 percent in 2011-12. Whereas, the unemployment (rural) did rise over the same period, starting with 7 person per 1000 unemployment in 1993-94 and ending with 25 person per 1000 unemployment in 2011-12. At the same time, by looking at the results of the analyses, it is stated that economic development taking place over the decade period did help in reducing poverty but it was not so with unemployment. In other words, poverty and unemployment did not go hand in hand. The main reason behind this could be the lack of employment opportunities in rural areas due to different geographical factors especially remoteness.

The Figure 2 tells the story from urban unemployment point of view. The unemployment in urban areas over these two decades shows the same scenario that unemployment has increased starting with 66 persons per 1000 in 1993-94 and 70 persons per 1000 in 2011-12. So, the analysis indicates that economic development has a negative relation with poverty and a positive relation with unemployment. In other words, the poverty and unemployment do not go hand in hand. One more point to be noted here is the percentage increase in urban unemployment over these two decades is lesser than in rural unemployment and this could be mainly due to employment opportunities.

So, above analyses state that the overall inter relationships status is not par with the common belief. As economy grew in the form of per capita income, the poverty has reduced but unemployment increased. But, if we look at their relationship by NSSO round basis, then in some rounds we can state that economic development did help in reducing both poverty and unemployment. This is mainly in case of urban unemployment. During 1993-94 the poverty was 25.17 percent and reduced to 3.48 percent in 1999-2000 and correspondingly the

unemployment was 66 persons per 1000 and reduced to 50 persons per 1000. Therefore, for this period poverty and unemployment did go hand in hand and these two have a negative relation with economic development in the form of per capita income. But poverty has increased to 13.20 percent and unemployment has continued to decrease that is 49 persons per 1000 in 2004-05. Whereas, in the succeeding round the poverty rate reduced to 9.40 percent and unemployment increased to 60 persons per 1000 and then in 2011-12 the poverty rate and unemployment increased to 10.35 percent and 70 persons per 1000 respectively. Hence, it is stated that poverty and unemployment do not go hand in hand always; sometimes there is a trade-off between the two. Whereas, economic development is not either pro-poor or pro-unemployment always, more specifically the level of economic development in the state has not been able to reduce the unemployment though it helped in poverty reduction to some extent.

V. Summary of the Findings

The paper has analysed the relationship between poverty, unemployment and economic development and the following results were observed:

1. As far as to establish the relationship between poverty and unemployment in the UT of J&K is concerned, the study took into consideration the Spearman's rank correlation and Pearson's correlation coefficient to analysis the data and the results show that the trade-off exists between the two in most of the cases except a few. The study checked the status of relationship between the two across districts, social groups, NSS regions and religions in the state. The positive relationship between the two was witnessed across social groups in rural areas of the state. At the same time, their relationships across districts in both sectors, social groups in urban areas, NSS regions irrespective of the sector and religion in rural areas pointed towards a trade-off between the two. Hence, the results make the study to accept the proposed alternative hypothesis H_1 : There is significant trade-off between poverty and unemployment. This could be mainly due to the existence of huge working poor population in the state and this finding is in tune to Agenor's view, and this dictates a pathetic situation of the regular salaried group either with regard to their salaries or social security.

2. While looking at the interrelationship between poverty, unemployment and economic development (Per capita income), it seemed that status of the relation between the three was not simple. From the paper it has been found that the poverty and unemployment did not go hand in hand all the time. Sometimes, they tend to have a negative relationship meaning thereby the trade-offs between the two, and but sometimes these two have a positive relation. While talking about the relation of poverty and unemployment with economic development, the economic development seemed to have a positive effect in reducing the poverty rate. Thus, the study accepts the H_2 : Economic development has significant association with poverty. But it was not helpful in reducing the unemployment and more specifically the rural unemployment. Therefore, it rejects the H_3 : Economic development has significant association with unemployment.

VII. Policy Implications and Suggestions

1. The trade-offs between poverty and unemployment project that the government must be more careful while dealing with the eradication of the poverty and should not be misguided by rising employment level, because there is a huge chunk of labour force in low paying jobs.

- 2. The government must provide more employment opportunities especially in rural areas.
- 3. The financial institutions arrange self-employment schemes for the population below the poverty line.

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