

The Triangular Relationship Between Growth, Poverty, and Inequality

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A pivoted aspiration of the economic policy for some decades has been the lessening of poverty. An economically strong country is supposed to be one least afflicted by poverty, but in turn, it is dependent upon the growth of the economy and a judicious apportionment of income (Kakwani and Son, 2003; Kamal, 2006; Asad and Ahmed, 2011). In a broader view, economic advancement and poverty reduction can be seen through pro-poor growth, which explains how the poor are influenced by this advancement, how its boons are delivered to the poor and how much vantage poor gain from them (Chenery et al., 1974; Ravallion, 2004; Karlsen, 2008 and Son and Kakwani, 2008). However, Ali *et al.* (2016) judged this connection between growth and poverty reduction to be unsubstantial if its advantages are accumulated among a few wealthy people and demonstrated simultaneously that real economic prosperity is the reduction of mass poverty by giving the poor a fair chance to be benefitted from it.

In order to examine the utility of growth performance in lessening poverty, one of the key factors is the study of the trilateral association between growth poverty and inequality (Kawaii, 1997 and Bourguignon, 2004). Some studies claim to have examined this relationship and discovered a strong link among particular variables (Heshmati, 2004; Iradian, 2005; Anwar, 2010). Nevertheless, Ali and Tahir (1999), Aman *et al.* (2009), and Zaman *et al.* (2012) studies claimed that this association between growth poverty and inequality is an intricate one, and experimental outcomes of their investigations forcefully suggested that economic growth alone is a feeble criterion for checking poverty reduction. Moreover, the study by Zaman and Ahmed (2008) claimed that though economic growth is inevitable for poverty reduction, it must not be considered a sole standard.

It can be summed up from this discussion that though inequality, poverty and economic growth are strongly linked with each other; this association is complicated, nonlinear and path-dependent. According to Kuznets (1955) inverted U hypothesis, an association between economic growth and inequality demonstrated that at early stages of economic growth inequality deteriorates and then steadily better when benefits of growth trickle down to poor income groups. Later on, Alesina and Roderic (1994) and Knowles (2001) favored Kuznets's study, while Kaldor (1956), Li and Zou (1998) and Forbes (2000) rejected it and suggested inequality basically stems from economic growth. Various studies like Ravallion and Chen (1997) and Dollar and Kray (2002) found no correspondence between growth and inequality, therefore being indecisive about Kuznets's inverted U Hypothesis.

After Bourguignon's (2004) explanation of the trilateral relation among growth, poverty and inequality, Kakwani and Son (2008) also discuss this phenomenon through the notion of pro-poor growth. His study evaluates the degree to which the poor gain an advantage from economic growth.

They also established a new demonstrator for the evaluation of growth rate christened as poverty equivalent growth rate (PEGR). Particular index not only tells the degree to which poor benefit from growth but also its multifarious boons. In the meantime, the calculation of the index shows that the larger the value of PEGER greater the reduction of poverty.

A stream of literature portrays a broader view of the poverty reduction capacity of economic growth. Primarily, Ravallion and Chen (2003) elaborated a pro-poor growth is the one that plays an effective role in declining poverty. Dollar and Kraay (2002), in their paper “Growth is good for the poor,” pronounced that positive economic growth is not only advantageous for the economy; it is also beneficial for the poor in a similar fashion. Similarly, a study by Kakwani and Pernia (2000) emphatically explained that growth is pro-poor if poor stakeholders of the economy comparatively enjoy more boons of growth than their rich fellows, whereas they also stated that in a negative reference, growth is taken as pro-poor if poor are comparatively less harmed than a non-poor member of society. Furthermore, the study by Ravallion and Chen (1997) explained the role growth plays with reference to the poor through the growth elasticity of poverty. They stated in mathematical term that if growth elasticity of poverty is 3, it simply means that 1 percent increase in economic growth (income or consumption) decline poverty by 3 percent. Similarly, Foster and Szekely (2000) illuminated that the positive growth elasticity of poverty is advantageous for the poor. Precise views are also shared by Ames *et al.* (2000): Anderson (2001) and Christiaensen *et al.* (2002). Furthermore, pro-poor growth is elaborated more tactfully by categorizing it into relative and absolute terms. The relative concept divulges that growth is pro-poor if it decreases poverty and better relative inequality. Nevertheless, if viewed in absolute terms, pro-poor growth is considered to be one in which the poor get more or equal absolute benefits of growth than the non-poor. Under the current description, growth is also mentioned as ‘super poor’ if, during the advancement of economic growth, absolute inequality declines (Mc Culluch *et al.*, 2000; Kakwani and Pernia, 2000; Son, 2003). Kakwani and Son (2003) further stretched the above idea by showing what role negative growth plays in pro-pooriness. They specified that though negative growth is usually associated with an up rise in poverty, it sometimes reduces poverty in a scenario when the effect of lessening inequality compensates for the corresponding influence of negative growth on poverty. Such a growth is referred to as ‘strongly pro-poor. In contrast, Bhagwati (1988) enlightened the notion of “immiserising” growth, which stated that there is also the possibility that positive growth increases poverty. Such a situation only takes place when poverty equivalent growth rate is negative or too much rise in inequality counterbalances the advantageous effect of growth. Still, another arrangement defines growth as ‘anti poor’ if negative growth results in an up rises of poverty while improving inequality. Similarly, the final situation is described as ‘strongly anti-poor’ if poverty and inequality rise together because of negative growth. To assess the broader picture of this discussion, we can present this trilateral relation among growth, poverty and inequality in the form of a diagram, which is as follows.

1.2 Background of Pro-poor Growth and Triangular Relationship among Growth, Poverty, and Inequality: A Detailed View in Pakistan Scenario

In the background of Pakistan, from the day of independence to this decade's growth, poverty and inequality have exhibited fluctuating trends. A wider assessment of this situation is described under the following lines.

1.2.1 Historical Trend of Poverty in Pakistan Since the Last Five Decades

Pakistan's economy has been varying in its trend of poverty ever since the day of independence. Some studies of the view that, in the early decade of the 1960s, poverty in Pakistan was continually on the rise in both urban and rural areas. Some might disagree because it was a period of rapid growth in the agriculture sector. Poverty did increase because the benefits of growth did not trickle down to lower income groups as its boons were accumulated in a few rich hands (Kamal (2001); Arif and Ahmad (2001)). In a similar context study, Naseem (1977) suggested a more comprehensive viewpoint of this poor trickle-down effect of growth and summarized that in spite of the high growth still, 82 percent of people in rural areas live below the standard of 2100 calories per adult per day. However, the curse of poverty was on decrease at the national and sub-national levels in the next few decades because of a tremendous increase in growth rate, private investment in the agriculture sector and transmission of money from the Middle East (Omer and Jaffri, 2008; Malik, 1994 and Ali and Tahir, 1999). Still, these efforts to uproot poverty ultimately came to nothing, and once again, this phenomenon rose, turning 12 million people into poverty from 1993 to 1999, with the majority of victims living in rural areas.

While leading causes of this horrible rise in poverty are attributed to a decline in economic growth, lower development spending, rising corruption, poor governance, and the country experiencing several droughts (ADB, 2002; Anwar, 2006; Gop, 2009-10), nevertheless, in the period of 2000s, poverty fell from 34.40 to 12.4 from 2001 to 2010, and a great number (17.948) of poor individuals succeeded in coming out of poverty. It was mainly so in rural areas and because of the fact that a number of steps were taken over there, such as the Benazir Income Support Program, better support prices to agricultural goods, increase in the inflow of remittances and improvement in income disparities (Zaman and Khilji, 2013 and Gop, 2013-14). It can be summarized as a result of this discussion that the reduction of income disparities plays a key role in declining poverty both at the national and regional levels in Pakistan.

1.2.2 Historical Trend of Income Inequality in Pakistan Since the Last Five Decades

Along with poverty, the last five decades also saw a phenomenal variation in the status of inequality in Pakistan. In the early sixties, researchers witnessed a rapid decline in inequality. Many factors accounted for it, including better growth, the green revolution and the divisibility of technology in the agriculture sector in rural areas (Anwar, 2005; Choudhary, 1982; Zakir and Idrees, 2009). Still, this fall in inequality was but for a very brief period and in the next couple of decades, in spite of historic growth and increasing influx of money, there was a Sharpe increase in inequality. Kemal (2006) gave an explanation for this unexpected rise in inequality. The reason he gave was that increased growth and uprise of the influx of money resultantly cause an increase in employment and real wages in both the agriculture and manufacturing sectors, leading to an increase in the rate of inflation, which ultimately leads to an increase in income disparities at the national and regional (urban and rural) level. Nevertheless, despite multifarious problems like poor growth performance, poor governance, and several droughts, the next decade revealed the declining trend of inequality till 1998. In the last couple of years of the century, inequality again rose because of structural adjustment and stabilization programs (which are acknowledged to cause an increase in inequality) (Mehmood, 2001). In the case of the final decade, the researchers witnessed a sharp decline in inequality at the national as well as regional (urban and rural) levels because of a more aggressive growth strategy and appropriate trickle-down of benefits toward the poor income quartile. (Anwar, 2006 Gop, 2011).

1.2.3 Growth Trend and Pro-Pooriness of Growth in the Last Five Decades

Having thoroughly discussed poverty and inequality, we come to varied studies that explained different situations of growth and their influence on the poor in the previous decades. It is unanimously agreed that there was a significant increase in growth in the initial decade of the sixties. It was chiefly because of the green revolution in the agriculture sector. However, this growth failed to decline poverty (which rose on the contrary) due to poor trickledown of growth benefits to the lower income groups. Such a rise in growth, nevertheless, did cause declines in inequality, which made this growth pro-poor at the national level and anti-poor at the regional level (Omer and Jafri, 200 Zaman and Khilji, 2013). In the next couple of decades, there was such a supreme growth that these decades are called the golden age for Pakistan's economy. This growth was accompanied by appropriate trickle which resulted in the pro-poor situation of growth at the national as well as regional level. Contrary to this, the period of the 1990s was handicapped by a number of shocks (corruption, political instability, and many droughts), due to which there was a considerable decline in economic growth, which severely affected the poor residing in rural areas. Since the poor were the ones more victimized by this situation, growth is regarded as anti-poor. However, in the last decades, although the rise in growth is smaller than in the previous period, yet poor have benefitted from it due to the aggressive straight of government as compared to the 1990s. Therefore current period is regarded as pro-poor

for Pakistan's economy at the national as well as regional levels (Omer and Jafri, 2008; Zaman *et al.*, 2012; Cheema and Sial, 2012; Jamal, 2014; Zaman *et al.*, 2014; Ali *et al.*, 2016). In order to view a clearer picture of this discussion, triangular relation and pattern of growth can be represented in the form of a well-established table that is as follows:

Table 1.1 Growth, Poverty and Inequity Triangle Along with Pro-Poor Growth

	1961-1970	1971-1980	1981-1990	1991-2000	2001-2010
Growth Trend	Increasing	Increasing	Increasing	Declining	Increasing
Poverty Trend	Increasing	Declining	Declining	Increasing	Declining
Inequality Trend	Declining	Increasing	Increasing	Declining	Increasing
Pro-Poor Growth	Beneficial for Poor	Beneficial for Poor	Beneficial for Poor	Against Poor	Beneficial for Poor

Source: Self-made using data from Kemal, 2006 Omar and Jafri, 2008. Zaman and Khilji, 2013; and Ali *et al.*, 2016

1.3 Previous Views about Pro-Pooriness at the National and Regional Levels in Pakistan

As far as Pakistan is concerned, various researchers have explored the triangular linkages among growth, poverty, and inequality, employing different approaches and using different data sets. Saboor and Zakir (2005) took aid from the HIES data set to measure poverty equivalent growth at a national, regional and provincial level in Pakistan from 1991 to 2001. Results of their studies concluded that in the epoch of the '90s, only Baluchistan saw pro-poor growth, while it remained anti-poor for other provinces (Punjab, Sindh, and KPK) and rural and urban regions. Omer and Jafri (2008) explained pro-poor growth for Pakistan in the last four decades, from 1968-69 to 2004-05. The estimated outcomes of their study confirmed that except in the 1990s, growth remained pro-poor for Pakistan at the national level in the other three decades (1970s. 1980s, and 2000s). Likewise, previous discussion,

Anwar (2010) measured the relative role of growth and inequality toward the decline in poverty for the period of 1998-99 to 2004-05 by using the poverty decomposition and Growth incidence curve method. The results of their study sufficiently proved that growth plays a vital role in lessening absolute poverty. The study of Cheema and Sial (2010) also evaluated poverty decomposition from 1992-93 to 2005-06 by using Ravallion (1992) and Kakwani (1997) decomposition approaches. Results of their study summarized that while poverty dropped in Pakistan, it did so only in urban areas due to substantial growth, while it rose in rural areas, as the inequality factor there overwhelmed the effect of growth. Again, Chemma and Sial (2012) studied pro-poor growth in the case of Pakistan by using HIES data from 1993 to 2008 and taking aid of two different approaches: Poverty Equivalent Growth Rate (PEGR) and Poverty Bias of Growth (PBG). The estimated outcomes of their study revealed that growth remained pro-poor from the period 1994 to 1997 and 2006 to 2008 while remaining anti-poor from 1997 to 1999, 2002-2005 and 2005 to 2006. Ali *et al.* (2015) measured pro-poor growth in different agro-climatic zones of Pakistan by using the HIES data set from 1998-99 to 2010-11. They followed the agro-climatic zone's division of Pinkey (1989). The estimated results of their study signify that except for the Mixed and Rains Punjab zones, in the rest of the seven agro-climatic zones, the relative pattern of growth remained pro-poor due to the relative lessening in inequality and positive growth. However, keep aside a couple of zones (Rice/Other Sindh and Baluchistan), and the absolute pattern of growth remains anti-pro-poor in the remaining seven zones.

The main aim of the current study is to explore growth, poverty and inequality trends in two major agro-climatic zones of Punjab, which is an area left unexplored after Ali *et al.* (2015) study (which did this explanation from 1998 to 2011). Therefore current study makes a special effort to bridge such gap by exploring the dynamic trend of growth, poverty, and inequality in two major agro-climatic zones of Punjab from 1998-99 to 2015-16 by focusing on 2012, 2014 and 2016 HIES data sets.

Objectives

The study aims to explore the growth, poverty and inequality dynamics in rural Punjab with the following precise objectives:

- To evaluate numerous poverty measures for two major agro-climatic zones of Punjab
- To scrutinize the distribution pattern of growth benefits in both relative and absolute terms between poor and non-poor across two major agro-climatic Zones in Punjab and,
- To formulate a precise policy matrix for lessening poverty in two major agro-climatic zones