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Multidimensional Poverty: A Selective Study of Rural Households in District Poonch

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Abstract

Being an age-old and global problem, poverty affects population in all the corners of the world, across ethnicities and connotes deprivation. Income as an indicator to measure poverty has enjoyed greater appreciation and is still in use but the people who have actually been affected by poverty started realizing it to be not just limited to income but also encompass deprivation on multiple fronts. Multidimensional Poverty Index measures poverty not only in terms of income but brings out deprivations regarding certain minimum requirements of a household. As such this paper shall estimate the level of multidimensional poverty faced by households in the village.

Keywords: Rural Poverty, MPI, Deprivation, Poverty Lines.

Introduction

More than 21.2 % of population in India lies under the $ 1.90-a-day poverty line of World Bank. However poverty is not all about income-earned-per-day. There are certain minimum requirements of a household like adequate food, proper shelter, clothing, and also assets and furniture (ILO on Basic needs, 1976). Moreover provisions such as safe drinking water, sanitation, health and educational facilities have also been incorporated to give a multidimensional twist to poverty.

In India, using the NSSO's Household Consumption Expenditure data, the erstwhile Planning Commission estimated the population living below poverty line, separately in rural and urban areas. But it is largely one-dimensional, being income-based. There are major differences among different poverty lines put forward by different committees. While Tendulkar Committee says that a person spending less than Rs 27.2 a day in rural areas and Rs 33.3 in urban areas is BPL, Rangarajan Committee estimates the same as Rs 32 per day in rural and Rs 47 per day in urban areas. The later estimates 30% of India's population as poor.

These varied estimates are therefore highly criticised not only for being only income-oriented but also because poverty line has deliberately been kept low to show that millions of people have been alleviated. No importance was given to lack of education, poor-health and other socio-economic dynamics. So, estimation of poverty has always been a contentious issue. Poverty manifests not only in income deprivations but also in other dimensions such as health, nutrition and sanitation (Abraham and Kumar, 2008). The data indicate that even the 'above-poverty-line' populaces were incapable of providing minimum needs. This study regards poverty as a multidimensional aspect of incapability and has used indicators of Multidimensional Poverty Index (MPI) with slight modifications. The MPI's 2011-12 data reveals that 41.3% of country's population is multi-dimensionally poor. Moreover 22.9 % of population is vulnerable to poverty, 15.7% are in severe poverty and 23.1% are destitute (OPHI, 2017). It is pathetic to compare the National Poverty Line 2011 data that puts poor population at only 21.9 %, almost half of MPI's data. The condition of rural India is deteriorating with 53.5 % of people being multi-dimensionally poor. For urban areas, it is 14.8%. The data of 'State-Wise Percentage of Population below Poverty line by social groups 2004-05' brought about by Ministry of Social Justice and Empowerment reveals that 28.3 % of rural population and 25.7 % of urban population lies below the Poverty line.

For Jammu & Kashmir, the same data source estimates 4.6 % of rural population and 7.9% of urban population as below the poverty line, making it the least-poor of the 21-states considered. According to Tendulkar methodology, rural-poor account for 11.54 % and urban-poor for 7.20 %. This puts 10.35 % of the state's population below poverty line as in

March 2012. The population of the state faces multiple deprivations owing to its topography, rural characteristics of population, agricultural dependence, climatic problems, credit availability, separate government policies, lack of technical know-how etc. Data on multidimensional poverty in the state is not available because the government of the state still relies on the income and consumption data to measure poverty using National Poverty Lines. The study is also relevant because it satisfies the fundamental requirement of MPI where data on all the indicators must come from the same survey, being based on primary data collected by researcher makes it relevant. Multidimensional measure of poverty is helpful for policy makers to identify the problematic areas (Maltzahn & Durrheim, 2008) and devise policy according to the targeted area, demography, and ethnicity and gender (Salahuddin & Zaman, 2012). It is therefore an initial step to know whether the indicators of global MPI can bring out the true picture of deprivations faced by the population in the rural areas of the state or it needs some modification in indicators which are relevant to the characteristics of the population.

Objectivesof the Study

The study comprises of following objectives,

1. To estimate the level of multidimensional poverty faced by households in the village.
2. To examine whether those above poverty line face multiple deprivations or not.
3. To highlight the indicators in which majority of the surveyed people face deprivations.
4. To throw light on comparison of multidimensional poverty among two selected population groups viz. Schedule tribes and non-Schedule tribes.

Literature Review

Abraham and Kumar (2008) in their study showed that multidimensional poverty provides additional insights for perspective policies and also extends the ambit of vulnerability of poverty beyond the range of income. They accentuate that Poverty is found evident not only in income deprivations but also in other dimensions such as health, nutrition and sanitation and accordingly there are different dimensions of classifying people as poor depending on the dimension chosen.

Alkire and Santos (2010) used in their study an index prepared by Oxford Poverty and Human Development Initiative (OPHI) along with United Nations Development Programme's Human Development Reports office in 2010, known as Multidimensional Poverty Index. They briefed about relevance of choice of indicators, dimensions and overall methodology used, and has tried to bring out the comparative advantages of using MPI as a measure of poverty over income measure. They have also shown in their study that MPI measure of poverty also differs from income measure because it measures outcome and services directly. It encompasses services such as water, sanitation, electricity, primary education and housing which are not consistently captured in all income/consumption surveys. They also found in their study that MPI poor people in Rural Areas are five times more than urban ones. Thus those in acute poverty are mostly concentrated in rural areas.

Alkire and Robles (2017) used same parameters and functional form i.e. Alkire and Foster Adjusted Headcount Ratio (M_0) used in previous studies to show updates of MPI for 25 countries. According to their study the Persons are identified as multi-dimensionally poor if their deprivation score exceeds a cross-dimensional poverty cut-off used in the study.

Alkire and Seth (2013) in their study emphasized that MPI trends in their study enable to see where and how changes in poverty have occurred and also that the MPI indicators and cut offs used by them in this study are the best parameters for India. Multidimensional poverty index used by them is the product of H, the incidence or Headcount ratio which represents the percentage of people deprived and A, the average intensity of deprivation in the indicators which is the share of deprivations each poor person experiences i.e. MPI=H x A.

Maltzahn and Durrheim (2008) considered five southern African countries for their study. They emphasised that different measures provide same overall pictures on poverty, but it does not provide a motivation to use only income a measure of poverty. They suggested that small differences between proxy variables provide insights which in turn help policy-makers to identify the problematic areas.

Salahuddin and Zaman (2012) in their study observed that breakdown of dimensions of poverty is helpful for policy-makers in formulation of targeted policy of poverty alleviation on the basis of area, demographic distributions, ethnicity, and gender. They also found in the study that Health and Education were the critical fronts of their study because these two fronts decide about the future of youth.

Santos and Alkire (2011) have provided a comprehensive material for how to construct Multidimensional poverty index that can measure acute poverty and also capture deprivations faced by people along with the intensity of deprivations. They have mentioned clearly the dimensions, indicators and the cut-offs used to measure these deprivations. According to them the indicators selected for MPI have been set according to the global consensus on the deprivations that can form the basis of poverty and that the measure has an advantage of allowing comparisons across countries and within countries

Santos (2013) used M_0 Alkire and Foster (2011) method i.e. Headcount ratio adjusted by intensity of poverty to measure multidimensional poverty in Bhutan. He considered different indicators, deprivations and cut-offs for all areas considered and access to roads and landownership particularly for rural areas. His study found that there was significant reduction in intensity of poverty, and emphasised that most of the income poor were multidimensionally poor and converse of this does not hold.

Seth and Villar (2017) emphasised that multimensionality refers to the analysis of how to choose dimensions for a particular problem, assign weight and aggregate it into an indicator. According to them this chosen single- valued indicator provides a

comprehensive detail of the complex phenomenon which makes it easier to grab the progress of Human Development and Poverty.

Yu (2013) applied methodology developed by Alkire and Foster (2007, 2011) to get estimates about multidimensional poverty in china. In his study he focussed on to bring out how growth process in China resulted not only in reduction of income poverty but the multi-dimensionally. He found in the study that proportion of poor households decreased not only in income but also in other dimensions considered for measurement.

Research Design

In the present study, Global Multidimensional Poverty Index (MPI) developed by Oxford Poverty and Human Development Initiative (OPHI) that encompasses ten indicators has been used for measurement of acute poverty. The index used in the study comprised nine out of ten indicators from MPI with the same dimensions, weights and cut-offs for the collection of data as recommended by Santos and Alkire in 2011. One indicator from the health dimension has been dropped because of its limitation in data collection, therefore weight for the indicator of first dimension i.e. health has been taken to be 1/3 rather than 1/6 for two indicators. In this study 'household' has been taken as a unit of analysis & it is purely on the basis of primary data collected by researchers. Open-ended Interview schedule has been used as a tool to collect data. A sample of 64 household was selected out of 317 households of the village Pathanatir (Census, 2011) and has been surveyed using random sampling. For the clear understanding of MPI among people residing in the village and the relative Multidimensional poverty among them, the households surveyed have been divided into two population groups; one is STs and the other is non-STs. The two groups have further been divided on the basis of income status i.e. APL and BPL. Out of the total sample size of 64, under Scheduled Tribe 12 BPL and 10 APL households have been surveyed. Whereas, in non-Scheduled Tribe households 28 fall under BPL and 14 fall under APL.

Multidimensional Poverty Index (MPI)

In 2010, Oxford Poverty and Human Development Initiative (OPHI) along with United Nations Development Programme's Human Development Reports office prepared an index known as Multidimensional Poverty Index (Alkire and Santos, 2010). It replaced the earlier index used to measure poverty under *Human Development Reports* i.e. Human Poverty Index. Although the need to have a measure that captures multiple deprivation that people face at a time was felt since 1990's but an index including comprehensive dimensions and indicators was developed at the end of the first decade of 21st century only. MPI comprises of three broad dimensions of Health, Education and Standard of living. The first two dimensions include two indicators each and the standard of living dimension includes six indicators. These indicators have been set according to the global consensus on the deprivations that can form the basis of poverty (Santos and Alkire, 2011). Moreover, the countries can change indicators as per the most relevant indicators that depict deprivation in the particular region. It is the product of H, the incidence or Headcount ratio which represents the percentage of people deprived and A, the average intensity of deprivation in the indicators which is the share of deprivations each poor person experiences i.e. MPI=H x A (Alkire and Seth, 2013), (Santos, 2013).

This measure has also an advantage for it allows comparisons across countries and within countries (Santos and Alkire, 2011). Each dimension and indicator has been assigned equal weight wherein the first two dimensions are having weight of 1/6 each and the indicators having 1/3 each. But in third dimension the weight has been assigned equals to 1/18 and each of six indicators having 1/3. Persons are identified as multi-dimensionally poor if their deprivation score exceeds a cross-dimensional poverty cutoff (Alkire and Robles, 2017), and the cross dimensional poverty cut-off here represents the weighted average of ≥ 1/3rd of the ten indicators shall be multi-dimensionally poor. Besides, measuring the deprivations faced by people it reveals the intensity and pattern of multiple deprivations. This measure is also helpful in showing the progress of Human Development and Poverty (Seth & Villar, 2017).

The Study Area

District Poonch is one of the remotest districts of Jammu and Kashmir. Being listed as one of 250 most backward districts in the country according to Ministry of Panchayat Raj, 2006, it ranks 2nd followed by Kishtwar as per Tendulkar's definition of poverty for 2011-12. It is one of the 22 districts in Jammu & Kashmir located on south-western LOC and covers 1.65% of state area with a total geographical area of 1674 sq.km. Majority i.e. 91.90 % of the populace is rural-based, the rest 8.10% being urban (Census 2011). As such the rural dominance of population of the district makes them suffer number of miseries and the biggest one is poverty. Most of the population undertakes subsistence agriculture; the uncertainty of monsoon makes population of the district suffer multiple deprivations. The distant location of the district and its topography both has been responsible for the underdevelopment of the district. So far no work has been done to collect information on the multidimensional poverty in the district. The present study shall therefore serve as a starting point to unveil multiple deprivations in rural area of Poonch.

Village Pathanatir is one of the 38 villages of Tehsil Mendhar. It is one of the prosperous villages where the basic facilities of education, health and standard of living are considered to be relatively better than in the nearby villages. This has been the one of reason to select it for present study. Being a home to a large number of households i.e. 317(Census, 2011), the village poses multiple problems to its residents. The study has therefore endeavoured to bring out the multiple deprivations faced by its populace at a time. The data collected by researchers is a clear picture of multiple aspects of poverty that these rural residents have to face.

Findings

The overall multidimensional poverty in the village as well as deprivation in each indicator of MPI has been discussed in the following tables & figure.

Table 1
Percentage of Multidimensionally Poor Households in the Village

Percentage of Multidimensionally poor households in the village									
Method used	**Scheduled Tribe Households**			**Non-Scheduled Tribe Households**			**Total**		**Grand total**
	APL	**BPL**	**Total**	**APL**	**BPL**	**Total**	**APL**	**BPL**	
H=q/n	0.2250	0.5425	0.3965	0.0495	0.4178	0.2672	0.1270	0.4666	0.3206
$A=\sum^{n}_{i=1} c_i(k)/q$	0.3880	0.4627	0.4359	0.3880	0.5733	0.5593	0.3662	0.5229	0.4962
MPI= H.A	0.0873	0.2510	0.1728	0.0192	0.0487	0.1494	0.0465	0.2439	0.1590

Note

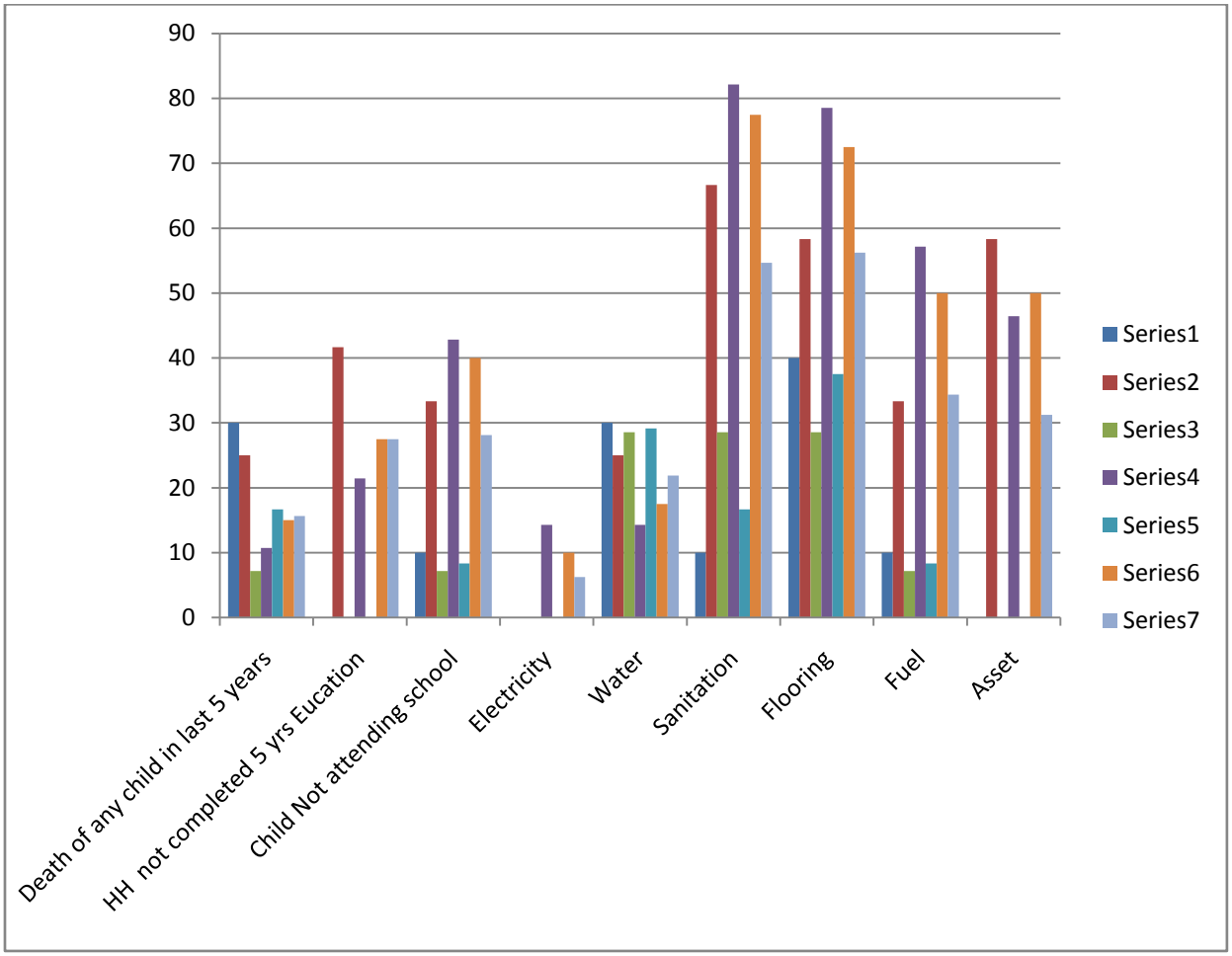
H= headcount ratio,
q=No. of households deprived,
n= total population,
A= intensity of deprivation,
c_i= deprivation score,
k=Household's size

In table 1, we have analysed the multidimensional poverty i.e. the multiple deprivations faced by population of the village. In the table the deprivations faced by households are the proportion of the households surveyed not the population of the village for example for calculation of headcount ratio of APL-ST population group we have calculated percentage of households deprived from the 10 people surveyed under APL-ST population group, same procedure has been used to calculate proportion of the households deprived throughout the study. Our analysis shows that under ST population group, 0.08% households who are not income poor are multi-dimensionally poor and those who fall under below poverty line suffering multidimensional poverty constitute 25% of the households surveyed. The total multidimensional poverty faced by the households under ST population group thus comes out to be 17%. The findings also show that only 0.01% the household who are non-ST population group and not in income poverty face multidimensional poverty which is lower than the former population group and is also insignificant. Whereas, 48% of the households surveyed under non-ST population group that were income poor suffer multidimensional poverty. Moreover, the percentage of total households under non-ST population group constituting multi-dimensionally poor is 14% which is less than the former group that has 17% under multidimensional poverty. This shows that in ST population group, a considerable proportion of households suffer multiple deprivations even those who are above the poverty line in income terms, whereas those in the non-ST population group who are not income poor suffer insignificant multiple deprivations as compared to ST population group.

The information observed from this analysis shows a very unique pattern as the incidence of deprivation or headcount ratio (H) among the APL-ST population group is very high than the APL-non-ST population group but the intensity of deprivation (A) which represents the average multiple deprivations faced by individuals in the households is exactly same among both the population groups. On the BPL front also headcount ratio among the BPL-ST population group is higher than BPL-non-ST population group and average intensity is higher among BPL- non-ST population group than the BPL-ST population group. However, the overall headcount ration among the ST population group is higher and the overall intensity of multidimensional poverty is lower.

The total headcount ratio of both the groups combined is higher among those who are income-poor but the worrying part observed from the study is that the intensity of combined multidimensional poverty of both the groups although among income poor is high but has little difference to those above poverty line. It can therefore be conferred from the findings that those who are income poor suffer more on multiple fronts but it has also been found that even those above poverty line suffer multiple deprivations significantly. Thus in selected village under study 15% of selected households suffer multidimensional poverty whereas the incidence of deprivation in the village is 32% and intensity comes out to be 49% making an individual in the village to suffer almost 49% of deprivation on average.An important point that is to be noted from the findings is that the reason for overall multidimensional poverty in the village coming to this low proportion is the greater proportion of above poverty line households being included in the sample. The insignificant deprivations faced by the not income poor has offset the deprivations faced by the income poor population thus causing overall multidimensional poverty in the village coming out to be low.

Fig 1: Number of Households Deprived (in %age) in Individual Indicators of MPI



Note

Series1=ST-APL,
Series2=ST-BPL,
Series3=non-ST-APL,
Series4=non-ST-BPL,
Series5=Total-APL,
Series6=Total-BPL,
Series7= Total-Households.

In figure 1, data on proportion of the households deprived in each indicators of health, education and standard of living has been analysed to bring out the area or field that needs focus of the policy makers and governments. In the present study a household is deprived if, Any child died in the family in last 5 years, No member of household has completed 5 years of education, Any child of 6-14 years age not attending school, Household has no electricity connection, Household does not have improved sources of water and even not within the walking distance of 30 minutes, Has no improved source of sanitation, Uses traditional means of fuel for cooking, Has flooring made of Dirt, Sand and Dung, Assets owned (TV, radio, telephone, bike, motorbike, refrigerator) not more than one and without Car and Tractor. The indicators used have been taken from Methodology recommended by Santos and Alkire in 2011. Findings from the information show the similar pattern as that of overall multidimensional poverty index as explained above where it is the income poor group who suffer the most deprivations. But one thing very unique that we come to note here is that except in one indicator of education (i.e. if no household of age ≥10 years completed 5 years of education then it is deprived) and two from standard of living dimension (i.e. No electricity and assets owned not more than one), the Above Poverty Line (APL) population even faces considerable deprivation in all the indicators of MPI.

Most of the indicators that highlight the highest deprivation of households are from the standard of living dimension of MPI where both the income groups APL and BPL suffer considerable deprivations. Highest place in deprivation being occupied by the status of flooring facility where they have dirt, sand and dung used as flooring. In this indicator although it is the 72.5% of income poor who are affected but 37.5% of those who are even above poverty line have same flooring status having 56.25% of total households deprived in the same indicator, but the proportion of BPL population deprived in this indicator is higher for non-ST population group which is 78.17% than the ST population group with 58.33%. For APL population deprived in the indicator it is more for ST population group 40% than non-ST having 28.57%. In improved sanitation facility which does have a bearing on health status of the households and is also in the policy agenda of central and state governments nowadays even then, not only those

below poverty line but above poverty line suffer this deprivation. 54.68% of the total households surveyed suffer deprivation in this indicator of multidimensional poverty, and proportion of households suffering deprivation in this indicator also is higher among non-ST-BPL population group i.e. 82.14% whereas for ST-BPL population group it is 66.66%. For ST-APL it stands at 10% which is lower than non-ST-APL group having 28.57% households deprived.

It has been found that the indicators of multidimensional poverty where 27-35% of the households face deprivation in the increasing order of percentage of deprivations in the village are; No household member of age 10 or older has completed 5 years of education having 27.5%, children in the age group 6-14 not attending school with 28.12%, Not more than anyone of the assets (TV, radio, telephone, bike, motorbike, refrigerator and no car, tractor) having 31.25%, and fuel used for cooking (charcoal, wood and dung) at 34.37% of the households surveyed are deprived. Almost 22% of the combined households irrespective of income status suffer in not having safe drinking water and that too not within the walking distance of 30 minutes. 15.62% of the households have death of a child in the home in the last 5 years prior to the day of survey indicating the health condition of the village. Moreover, the overall information about the percentage of APL and BPL population under both ST and non-ST population group deprived is explained through the Bar chart above in figure 1. The indicator where the least households face deprivation in the village is the electricity connection where even none of the households in the ST population group who is income poor and in non-ST-APL is deprived. But 14.28% of the non-ST population group does suffer deprivation in this indicator as well but overall 6.25% of the population suffers deprivation in having electricity connection.

Data on deprivation in the individual indicator also shows that the percentage of deprived Non-ST-BPL population group households is more in indicators like school aged children not attending school, no electricity connection, no improved source of sanitation, status of flooring and fuel used for cooking. Whereas in the indicators like death of any child in last 5 years, no family member of age 10 or older not completing 5 years of education, no source of safe drinking water, and any of the assets owned not more than one, ST population group households are deprived more than the non-ST population group. For those who are above poverty line the ST population group suffers deprivation in all the indicators of MPI than the non-ST population group.

Conclusion and Suggestions

The deprivations faced by the people of village Pathanatir on the individual indicators of MPI has brought out a very unique picture. It has been found that the households that are well off and even not fall under income poverty are multi-dimensionally poor. The indicator in which one population group is more deprived shows very less deprivation for the other population group and vice-versa. It can therefore be safely concluded that each selected indicator for the study shows deprivation faced by households in the village with few indicators touching heights and only one indicator from standard of living shows less deprivations. The indicator that needs modification is number of assets owned not more than one. In this indicator even the households who do face deprivation in majority of indicators possess two phones owing to its necessity in the present time but they are actually poor. The study therefore concludes that despite the village being considered well off relative to the nearby villages and having access to resources affects its considerable population multi-dimensionally. In this backdrop the suggestions are to those at the helm of affairs, to devise poverty measurement techniques that incorporate multi-dimensional parameters so as to bring out a clear picture. The data on multi-dimensional aspects, in-turn will be an indicative of the areas that need to be developed. This shall also help the research community to have multitude data for their study purposes in general and for giving cue to policymakers in particular.

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