DISPARITIES AMONG THE DISABLING VARIABLES OF MULTIDIMENSIONAL POVERTY IN INDIA: COMPARISON WITHIN THE HUMAN DEVELOPMENT FRAMEWORK

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ABSTRACT: This paper aims to analyses among the disabling variables of multidimensional poverty in India within the human development framework. The variables chosen in this study are non-income variables which are closely associated with the dimensions of human development namely, education, health, and standard of living. The variables that show significant inverse relationship with Multidimensional Poverty Index (MPI) and significant positive correlation with Human Development Index (HDI) are considered as 'disabling variables of multidimensional poverty' in this paper. Comparative analysis of Indian states using HDI, MPI, measures of central tendencies, dispersion and correlation coefficient has been made in this study. The confidents of variation corresponding to each disabling variables of multidimensional poverty reveal, a wide disparity exists among the prevalence of disabling variables of multidimensional poverty across the states of India. The paper highlights the urgent need of reducing disparities in the disabling variables of multidimensional poverty across the states of India in order to realize the achieved functionings of human development in the domains of education, health, and standard of living.

KEY WORDS*:* Multidimensional Poverty, Human Development, Disparity, Disabling Variables, Achieved functionings, MPI, HDI

I. INTRODUCTION

The incidence of poverty is generally assessed by shortfall of financial resources of households with officially proposed norms. Iincome is considered as the 'means' of an individual to attain 'valuable ends' of people. The well-being of an individual depends not only on the income they have but also on the capabilities of people to attain their valued 'funcionins' with their given level of income. Apart from the traditional income based approach of poverty analysis, the present study follows 'capability approach' that developed by Amartya Sen as an alternative paradigm. Sen (1981) argues that utility-based evaluations of individual well-being might not reveal important dimensions of life and could results in misleading inter-personal comparison. Sen (1985) observes that people and societies differ in their capability to convert income and commodities into preferred outcome. The most important facets of poverty are its multidimensionality and continuous evaluation as its determinants vary across countries as well as within the region of the same territory. This intellectual exercise of poverty analysis aims to find those determinants (subsets of commodities) which are required for satisfying basic needs of the people. According to Sen (1981) 'basic capabilities' is the ability to satisfy certain crucial 'functionings' to minimally adequate level. Hence, the present discussions on multidimensional poverty relay on the basic capabilities and its levels among the households belong to various social groups namely, SC, ST, OBC, and FC residing at selected regions such as, Kerala, West Bengal, and Bihar which are placed in the top, middle, and bottom positions in the ranking of human development in India.

Education, health, resources, and freedom are the basic requirements in human life help an individual to achieve his 'valued functionings'. Human poverty exists in the society where the 'choices of people' are limited which lead to capability failure. According to Sen,human development isthe process of widening people's choices as well as raising the level of well-being achieved. Therefore, poverty can be perceived as the denial of opportunities and choices namely 'to lead a long and healthy life', 'to be educated', and 'to enjoy decent standard of living' which are basic to the process of human development. In the human development framework, reduction in poverty is assessed through the changes indisadvantages of the deprived people belonging to all groups in each community.Empirical studies on poverty deals with various aspects of poverty which include measurement of poverty, extent of shift in poverty, identification of poor, inconsistency between

official estimates and other estimates of poverty. Caste discrimination has become one of the enabling factors in explaining the intensity of poverty in India (Ray and Lancaster, 2005). Poverty statistics of India underlines this fact as the incidence of poverty is very high among the households belong to SCs, STs and other backward communities in India (GoI, 2011). Further it is supplemented by the incidence of wealth inequality as a few people in India holds major portion of the wealth of the country. For instance, 20 percent of people at the bottom in India get only 8.1 percent of national income where as top 20 percent of people hold 45.3 percent of national income (HDR, 2008). Recently the Oxfam data on inequality further reveals that 73 percent of the GDP of India is held by merely one percentageof people in India (2019). Unfortunately, the major proportions of the bottom 20 percent of the income ladder by social groups belong to the socially and economically backward communities viz: SCs, STs and OBCs. Hence, the present paper aims to analyses the trajectories of multidimensional poverty among various social groups residing at Kerala, and Bihar, the regions placed in the extreme positions in HDI ranking in India, through capability approach using household level primary data. Incidence, intensity, and MPI of social groups are estimated using methodological framework of OPHI and analyzed within the human development framework.

II. POVERTY AS CAPABILITY FAILURE

The process of the enlargement of the choices of people includes the provision of adequate social opportunities through which individuals can shape their own destiny and help each other (Sen, 1999). It provides the role of multiple agents who are obliged to provide opportunities and the real agency of each individual is responsible for proper use of all opportunities. The theory establishes a two-way relationship between the social, economic, and political arrangements that expand freedoms and the use of individual freedom not only to improve the respective lives, but also to enable these arrangements make appropriate and effective. The outcomes of developments are relative to the 'process' involved (Sen, 1985).

Capability theory of Sen states that, human developments involve 'freedoms from' and 'freedoms to'. Sen defines 'capability' as the individual freedom to achieve 'functionings' such as good nourishment, good health, education, self-respect, and social integration (Sen, 1997). To ensure 'freedom to' choice resources such as income, education, and food the abilities to use these commodities and resources are needed. The type of freedom Sen envisages is positive freedom, i.e., the capacity to do this or be that, in contrast to negative freedom or 'freedom from' constraints. The multiple agents involved in this process should not only reframe from interferences that generate harmful consequences, but also act positively to create, provide and expand freedom enhancing opportunities qualitatively (Sen,2002). The outcome of human development process is the continuous expansions of agency of each individual. An expanded agency is capable of exerting informed choices. (Sen, 2004). The capabilities theory distinguishes between the 'means' and 'ends' of well-being of people and developments. In this approach, the 'ends' have only intrinsic importance whereas 'means' are instrumental to realize better well-being and development. The 'ends' of well-being and development should be conceptualized in terms of the capabilities of people to 'function'. It implies the effective opportunities of people to understand the action and activities that they want to engage. Sen calls these 'beings' and 'doings' as 'functionings'. That include working, being educated, being healthy, being part of the society, and being respected. These 'functionings' together makes the life of an individual valuable. According to Sen, the people have the freedom or capabilities to live, the kind of life they want to lead, to do what they want to do, and be the person they want to be. Once the individuals effectively have these substantive opportunities, they can choose those options that they value most.

III. DATA AND METHODS

The study mainly depends upon secondary data collected from NFHS, and India Census. State specific information related to non- income variables namely population, education, health, and standard of living and found its association with HDI and MPI using correlation coefficients (r). Incidence of disparities exists among the selected non- income variables are analyzed with Coefficients of Variation (CV). The non- income variables that show significant inverse association with MPI and positive association with HDI are called 'disabling variables of multidimensional poverty' in this paper.

IV. RESULTS AND DISCUSSION

The Human Development Index (HDI) is a composite measure of the important dimensions human development. It measures the average achievements in the domains of education, health, and standard of living, which are the three basic dimensions of human life. On the other hand, the Multidimensional Poverty Index (MPI) measures multiple deprivations of education, health, and standard of living at the individual level whereas the HDI is the geometric mean of the normalized indices (Education index, Health index, and Income index)

from each of the dimensions of human development. As a measure of deprivation, MPI gives 'incidence' and 'intensity' of multidimensional poverty of the country. It provides information regarding the deprivations in education, health, and standard of living of the people. Each dimension index of HDI is a proxy for capabilities in the corresponding dimensions (Education, Health, and Standard of living).

In this discussion, the variables which show significant inverse association with MPI are considered as 'disabling variables of multidimensional poverty. The association of 'human development enabling variables' with Multidimensional Poverty Index (MPI) is also tested to accomplish the interplay of the reinforcing variables of human development in reducing the incidence of human deprivation. These disabling variables of multidimensional poverty are broadly categorized as; (i) 'Demographic variables' which include the size of population, proportion of people in rural and urban areas, rural urban population ratio, density of population and sex ratio; (ii) 'Employment status' of people which includes the proportions of main workers and marginal workers, non-workers, and the dependency ratio (Ratio of Non-workers to Total workers); (iii) 'Occupational categories' of people which includes the proportion of the people engaged in cultivation, agricultural labour, those who are working in household industries and other categories of work, and worker participation rate; (iv) 'Health related variables' which include life expectancy, mortality rates (Infant Mortality Rate, Under five Mortality Rate), malnutrition indicators such as stunted, wasted, and under-weight; (v) 'Educational variables' which includes mean years of schooling and literacy rates (Literacy rates of male and female); and (vi) 'Standard of living indicators' that include electricity, clean drinking water, sanitation facilities, and cooking fuel. The inter play of these variables and its impact on the capabilities of peoples determine the echelon of human development and deprivation across the regions of India. Hence, an attempt has been made to examine the degree of association of these variables with the incidence of human development and multidimensional poverty of the selected states of India. Prior to the discussion on enabling variables of human development and its association with multidimensional poverty, a detailed discussion on the interconnections of human development and deprivation would be rewarding to get an insight into the relevance of the inferential analyses conducted in this study in the upcoming sections.

V. HUMAN DEVELOPMENT AND DEPRIVATION

Development is the process of socio- economic transformation that would expand the choices of people through improved education, skill, health, and income. In this process, employability of people and opportunities for employment are to be expanded simultaneously. It is supposed that freedom, choices, and participation of people in the society are also expanding in this process. Deprivations on the other hand, make an adverse impact upon real choices and freedom of people that make them unable to attain better education, health, and standard of living. It is assumed that both human development and deprivation are the two mutually exclusive phenomena were, deprivation can be effectively managed through capability building of people which is possible only with the provision of better education, health facilities, and skill development that ultimately reflected as higher incidence of human development and lower incidence of deprivation. In this backdrop, it is hypothesized that there exists significant inverse relationship between human development and deprivation.

Human development can be accessed through a composite index of education, health, and standard of living which is termed as human development Index (UNDP, 2019). It helps to understand relative position of the regions in human development and average attainment of elementary valued 'functionings' of people namely, education, health, and standard of living that revealed through its corresponding indices namely education index, health index, and income index. In HDI per capita income is considered as proxy for decent standard of living of people. As discussed, human development Index is a summary measure of human development of the country. Incidence of HDI, 0.51 reveals moderate human development of the country, which placed India among medium level human development countries of the world. Health index (0.69) of India is better than other two dimension indices of human development. It reveals attained 'functionings' of the people in health, to lead long and healthy life that emanates from availability, accessibility, and affordability of health services of the country. Even though India has better health index, its education index is the lowest (0.39) among other two-dimension indices of human development. Education index reveals attained 'functionings' of people in education, acquisition of better knowledge and schooling. Hence, 'mean years of schooling 'would be expanded to make the society more knowledgeable and informed. Thus, the intervention gaps in the education sector need to be bridged through specific education policies and programmes. National Education Policy (NEP) of India is the new initiative in this direction to reduce deprivation of education in the country (GoI, 2020).

Income in human development framework is a 'means' to attain the valued 'functionings', education, health, and standard of living, not an 'end' itself. Income is used as proxy for standard of living of people in this framework. The incidence of income index of India is 0.46 is relatively lower than other moderate human development countries of the world (UNDP, 2019). It reveals relatively lower standard of living of people in

India. Hence, education, health, income, employment status, and standard of living are inter connected were, these variables are the function of human 'capabilities' and 'functionings'. Hence, the extent and disparities of allied variables of human development and its deprivation are to be examined and intervention gaps have to be identified for better polices and strategies.
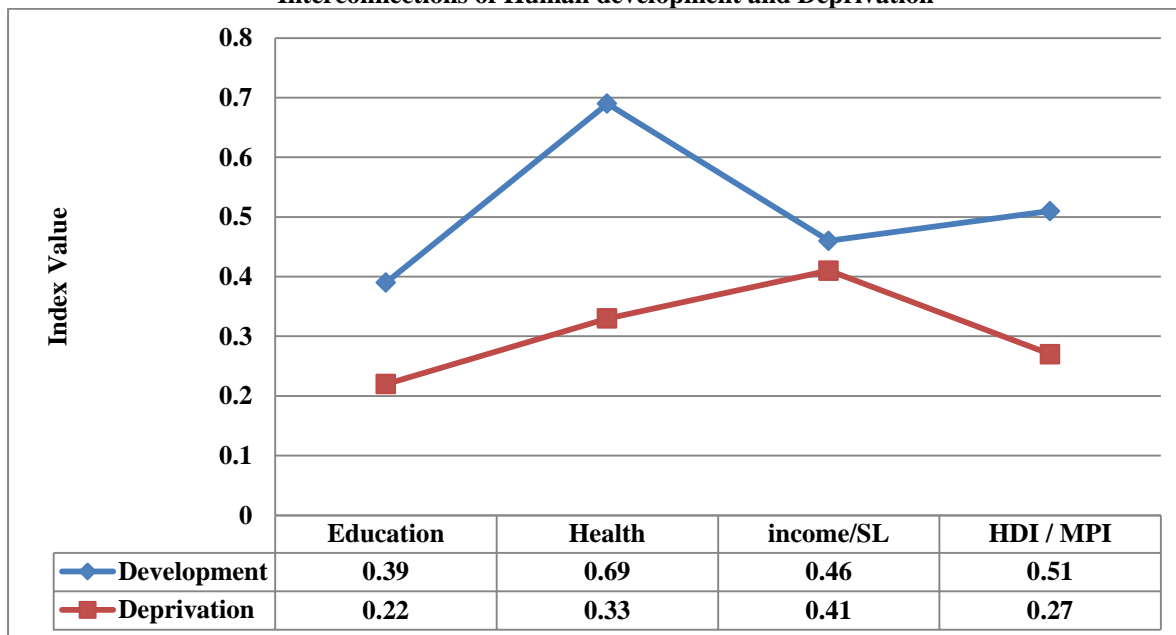
Human deprivation on the other hand, decelerates the progress of human development. The multidimensional Poverty Index (MPI) helps to identify multiple deprivations of households in education, health, and standard of living. Household level data have been used in the estimation of the index. All the ten indicators corresponding to the three dimensions of MPI represents valued 'functionings' of people were its deprivation is called multidimensional poverty which are coupled with capability failure of people. Therefore, analysis of multiple deprivations of households helping to emphasize dimension, indicator, group, and region-specific intervention gaps for targeting poverty. Understanding the variables that create mutual divergence impact between human development and deprivation is very important in the poverty analysis. The dimensions with higher deprivation need to be addressed immediately and its bottom level roots also taken as the matter of prime concern.

The incidence of deprivation is the highest (0.41) in standard of living in India that points towards multiple deprivations of basic facilities such as, housing, electricity, clean drinking water, adequate sanitation, cooking fuel, and minimum asset ownership. If a household is not able to lead a decent standard of living, their functionings with regard to standard of living become unattainable and it strengthen deprivations of education, and health. The unique advantage of multidimensional framework of poverty is that, it facilitates indicator and dimension wise decomposition of the dimension indicators of MPI. The highest incidence of deprivation in 'standard of living' pinpoints the urgent needs of intervention to reduce deprivation of basic facilities such as housing, electricity, drinking water, sanitation and other requirements to the downtrodden sections of the country.

Deprivation of education in India (0.22) is seems to be the lowest among other dimensions of multidimensional poverty. It reveals that people of India are getting proper provisions for the attainment of education which is considered to be an important valued 'functioning' of people. Deprivation of education reveals the incidence of deprivation with regards to basic indicators of education namely 'years of schooling and school enrollment'. If no one of the household is completed five years of schooling and school -aged child (6 years of old) not enrolled in the school, they considered as deprived in education. The lowest deprivation of education among the households of India reveals better schooling and school enrollment in the country. As an item in the concurrent list of the Constitution of India, both the central and state governments are equally responsible for the provision of better educational facilities which is very much essential for the capability building of people and human capital formation of the country. The lowest deprivation index of education gives a good signal of educational development and positive impact of interventions through various educational programmes and policies of the governments.NEP, 2020 gives special emphasis on the importance of focusing on the educational deprivations of disadvantaged sections of people by improving their enrollment in schools.

Comparatively lower deprivation index of health (0.33) reveals provision of health services within the accessible assortment of households for better health care that determines better life expectancy of people by reducing mortality rate. A household is considered as deprived of health if it includes a malnourished member and occurrence of child mortality in the family. Age specific health parameters such as 'height for age' (stunted), 'weight for age' (underweight), 'height for weight' (wasted) are used to represent malnourishment in the study. Provision of preventive medicines, curative medicines, and community medicine along with other health services by the central and state governments play an important role to ensure long and healthy life of the people and lowering deprivation of health in the country.

Figure 1
Interconnections of Human development and Deprivation

	Education	Health	income/SL	HDI / MPI
Development	**0.39**	**0.69**	**0.46**	**0.51**
Deprivation	**0.22**	**0.33**	**0.41**	**0.27**

Source: ibid

As discussed, human development and deprivation are mutually exclusive were, variables of education, health, and standard of living play dual role in the society, acceleration of human development and deceleration of human deprivation. The negligible index gap (0.05) between development index of income (0.460 and deprivation index of standard of living (0.41) reveals inconsistency between the income and non-income-based estimation of development index and deprivation index. In the estimation of HDI, per capita income is considered as proxy for decent standard of living of people were, deprivation of standard of living in MPI is measured in terms of non-income variables namely, electricity, drinking water, sanitation, housing, cooking fuel, and asset ownership. Therefore, income is considered as 'means' to attain valued 'functionings' of people including education, health, and standard of living of people. Hence, interventions to accelerate human development would be decelerating human deprivation. Index gap between HDI and MPI (0.24), and gaps between its allied indices namely, health (0.36), and education (0.17) substantiate the argument. The present study attempts to emphasis the significant variables that create higher positive impact upon human development and negative impact upon human deprivation. These variables are termed as 'enabling variables of human development'.

It is found that, magnitude of disparity (CV) in multidimensional poverty (48%) is very high across the region compared to human development (9%) where as its extent (GM) are 0.27 and 0.51 respectively. The regions which registered higher incidence of human development (HDI) are placed in the bottom positions in MPI ranking. It indicates the initiatives of achieving higher human development helps to reduce incidence of multidimensional poverty across the regions of India.

VI. EXTENT AND DISPARITIES OF ENABLING VARIABLES OF HUMAN DEVELOPMENT

The focus of analysis and discussion in this section is relay upon the 'disabling variables of multidimensional poverty' and its extent and disparities across the regions of the country (see Table 1).

Table 1
Extent and Disparities of Human Development Enabling variables of India

Enabling Variables of Human Development	Correlation Coefficients		Mean	SD	CV%
	HDI	**MPI**			
Population (Urban)	0.634**	-0.631*	70.31	12.28	17.47
Literacy Rate	0.88**	-0.83**	74.14	7.72	10.41

Literacy Rate (M)	0.821**	-0.78**	81.84	5.92	7.23
Literacy Rate (F)	0.873**	-0.84**	65.92	10.04	15.23
MYS	0.871**	-0.75**	4.16	0.91	21.88
Other Works	0.861**	-0.796**	42.61	14.25	33.44
Life Expectancy (LE)	0.934**	-0.780**	64.0	3.85	5.99
Electricity (EL)	0.615**	-0.773**	90.23	11.49	12.73
Sanitation (SN)	0.875**	-0.887**	53.83	22.99	18.08
Cooking Fuel (CF)	0.690**	-0.819**	40.7	18.08	44.41
*Source: Estimation of Investigator based on Secondary data; M-Male; F-Female; MYS-Mean Years of Schooling; *Correlation is significant at the 0.05 level (2-tailed); **. Correlation is significant at the 0.01 level (2-tailed).*					

The variable that shows significant negative correlation with MPI and significant positive correlation with HDI is considered as 'enabling variables of human development'. The extent of this variable reveals its average incidence of prevalence across the regions of India. The magnitudes of disparity of these variables reveal its deviation from the central tendency. Higher disparity have been found among the disabling variables of human development namely mean years of schooling (21.88), proportion of workers other than agricultural workers (33.44), provision of clean cooking fuel (44.1).

VII. CONCLUSION

Even though, authorities claimed success in the reduction of income poverty in India, it has not been very successful in reducing non-income deprivation of people including education, health, and standard of living. More than half of the households, particularly ST, are suffering from severe incidence of multidimensional poverty in both, Kerala and Bihar. The SC/ST households are highly excluded from the outcome surface of human development in the study area. Decomposition of MPI reveals disproportional burden of incidence and proportional intensity of multidimensional poverty among ST households in Kerala and Bihar irrespective of its attainment in human development. On multidimensional analysis of poverty, deprivation of ST households alone explains more than half of the deprivation of Kerala. The risk of multidimensional poverty is more severe among the households belong to SC/ST than that of non SC/ST that seriously retarding their 'choices and voices' thereby overall development of the region. Unfortunately the proportion of ST households in Kerala and Bihar is relatively lower than that of other social groups. It makes them unable to represent their voice and choices properly in the society. Deprivation of education, health, and standard of living of these social groups seems to be higher, particularly in Bihar. Deprivation of ST households in Kerala and Bihar are found to be approximately equal in the analysis of household level data. Concerned efforts are needed to break the vicious circle of multidimensional poverty among disadvantaged social groups of Kerala and Bihar. It needs to be emphasized that reduction of multidimensional poverty among disadvantaged social groups of the region would greatly depend on delivery of effective and sustainable interventions to SC/ST households in the dimensions of education, health, and rural development. However, short run and long run deprivation targeting policies particularly among disadvantaged social groups of Kerala and Bihar is needed to breaking the trajectories of multidimensional poverty among social groups in both 'better performing regions' and 'least performing regions' of India to ensure adequate attainment of elementary functionings such as education, health, and standard of living oamong social groups leading to improving human development outcome of the regions.

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