

# A Human Development Approach to Vulnerability Assessment: A Study based on East Sikkim

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*by*

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## ABSTRACT

The thesis aims to examine the *link between poverty and vulnerability* of natural resource dependent rural mountain communities in East district of Sikkim, through capability approach to human development. A human development approach was found to be appropriate for the research work because it is well established that climate change threatens and undermines human development across countries by limiting people's ability to live long and healthy life, to be educated, to have a decent standard of living, and to participate in community life with dignity and self-respect etc. The research was intended to contribute to formulation of pro-poor interventions on multiple dimensions of poverty in the region for strengthening community's resilience. This research builds an understanding on contextual vulnerability which focuses on the capacity of individuals and social groups to respond to, cope with, recover from, or adapt to, any external stress placed on their well-being and livelihoods. Understanding on contextual vulnerability has evolved to acknowledge the complexity of climate-society interactions and its multidimensional nature. It emphasize that there is an intrinsic link between poverty and vulnerability, which is not only context-specific but is complex and multi-faceted. This recognition came with the view that vulnerability is an inherent property of a society determined by multitude of factors such as poverty, inequality, gender patterns, lack of access to basic need such as health care and housing etc. These factors further enhances the vulnerability of the poor community to change, and makes it very difficult for them to break the poverty trap and 'bounce back' from impacts of climate variability in the short term and climate change in the long term. Therefore, climate change has the potential to undermine human development across countries. As such there was a need to identify a suitable approach to human development which considers multidimensional nature of poverty, and would make meaningful contribution to vulnerability reduction. This thesis draws Sen's capability approach to human development for understanding the multidimensional poverty-contextual

vulnerability linkage. The focus is on human capabilities, i.e., *what people are effectively able to be (beings) and to do (accomplishments)*, in other words, ‘ability’ or ‘inherent capacity’ to convert resources into sets of capabilities. In the context of multidimensional poverty-contextual vulnerability linkage, the capability approach indicates that vulnerability can be viewed as ‘deprivation of human capabilities or freedoms’, as uncertainty posed by climate variability and climate change threatens to ‘erode human freedoms’ and limits the choice of an individual.

The State of Sikkim (India) was selected to understand the ***poverty-vulnerability linkage*** of the rural mountain communities because it is characterized by a multitude of ethnic minorities, tribes and clans, where the dependence on natural resources is high, and impacts of climate change is likely to magnify the risk they face. Sikkim faces physical isolation, limited mobility, poor infrastructure, limited production & livelihood opportunities, poor access to resources, exposure to natural hazards (like earthquake, landslide, snow, storm) resulting in poor socio-economic development. Through **purposive sampling method** four GPUs, (1) Rhenock Tarpin, (2) Sudunglakha, (3) Dolepchen, and (4) Rolep Lamaten were selected from Rhenock and Regoh development blocks of East district of Sikkim to carry out field survey on establishing the multidimensional poverty-contextual vulnerability linkage. Both household survey and FGDs were conducted to capture the linkage. Multidimensional Poverty Assessment Tool (MPAT) was identified as suitable analytical framework for establishing the link between multidimensional poverty-contextual vulnerability. This is because it shares similarities with Sen’s capabilities approach on viewing rural poverty as multifaceted, and complex. In particular, MPAT tries to capture the freedoms and the opportunities (capabilities) available to the person.

The multidimensional poverty assessment of East district of Sikkim reveals that the thematic poverty is concentrated in high (30-60%) and moderate (60-80%) poverty levels in

the selected study region. Six of the themes of MPAT reflect high poverty (30-60%) – farm assets (43%), education (44%), non-farm assets (47%), health and health care (53%), exposure and resilience to shocks (58%), and food and nutrition security (58%). Four themes reflect moderate poverty (60-80%) – gender and social equality (66%), sanitation and hygiene (69%), housing and energy (70%), and domestic water supply (76%). High level of thematic poverty reflects deprivation in these sectors and has enhanced vulnerability of the communities. Similarly, there was a significant difference in multidimensional poverty among the social groups. The households from the General category had comparatively lower poverty levels than households from OBC and ST category in five of ten themes- (1) non-farm assets, (2) exposure and resilience to shock, (3) food and nutrition security, (4) sanitation and hygiene, (5) housing and energy.

The analysis of the data from the FGDs on instrumental freedoms, reveals that there are lack of freedoms among the communities. As interventions have not been made through a participatory approach, the community lacks political freedom to express their views in the planning and implementation of these interventions. The community also perceived that there is a need to enhance the transparency in implementation of interventions (social safety net schemes) as there is a lack of awareness about these interventions (social safety net schemes) among the communities. Similarly, current status of economic facilities to use the resources (such as farm assets, access to education) is limited in terms of achievements (generate economic opportunities like income generating employment, skills and knowledge) thereby limiting the community's capability to enhance adaptive capacity.

Therefore, there is a need to enlarge the freedoms available to the communities by prioritizing interventions that are crucial human development. Interventions should ensure equitable development of the vulnerable social groups. It is important to identify the context-specific drivers of vulnerability which need to be addressed for expansion of adaptive capacity

of these communities. The findings of this thesis is a primer for building further knowledge to support formulation of evidence-based policies which can be implemented to reduce contextual vulnerability of the rural mountain communities.

