

COMPARATIVE ANALYSIS OF HOUSEHOLD VULNERABILITY DERIVED THROUGH APPLYING
WEIGHTS FROM LITERATURE AND CONSULTATION WITH COMMUNITIES OF PLACE

By

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ABSTRACT

Considerably large numbers of people in many parts of developing countries are vulnerable to hazards such as floods, wildfires and droughts. Quite often, the people fail to withstand the effects of the hostile environments they are faced with. Vulnerability is multidimensional and must be reliably estimated because it helps develop appropriate strategies to counter the associated causes and effects, in particular at household level. Conventional aggregate analyses of household vulnerability rely on weight-based indices calculated using information derived from literature. Rarely are grassroots communities engaged to assign the weights. Various scholars argue that use of various targeting approaches results in inclusion of undeserving households in development programmes and also exclusion of those in dire need of assistance. Therefore, there is need to develop appropriate approaches that might address this challenge.

In this study conducted in Rushinga District of Zimbabwe, Maphutseng in Lesotho, Mpolonjeni in Swaziland community members were engaged to assign weights to financial, human, natural, physical and social capitals as determinants of rural household vulnerability. The weights were compared to those obtained from literature and used in a household vulnerability index (HVI) that the Food Agriculture and Natural Resources Policy Analysis Network (FANRPAN) developed. The effect of including weights obtained through engaging youth, women, men and community leaders in rural communities on HVI and classification of households was subsequently investigated. The modified 10 seed technique was used to assign weights to the indicators of vulnerability in focus group discussions.

A household survey was conducted to collect data on livelihoods to use to compute HVIs and 400 households were sampled. Qualitative data were processed using the modified Cresswell (2011) Thematic Content Analysis technique. With respect to quantitative data, descriptive statistics were computed using MS Access. Hypothesis testing for proportions (t-test) was used to test for significant differences among the weights. Chi-square and analysis of variance was undertaken using the Statistical Package for Social Sciences ver 21.0. Seasonal variations in household vulnerability in Rushinga District were determined. Using data from the Maphutseng (Lesotho), Mpolonjeni (Swaziland) and Rushinga (Zimbabwe), comparisons in the magnitudes of weights of capitals and household vulnerabilities were made to establish if there were any differences in perceptions among these communities of place. The effect of incorporating the community-assigned weights of capitals on the magnitude of HVIs was assessed.

Men, youth and women revealed that the communities in Rushinga District had limited but diverse livelihood strategies that sustained households during difficult times. Women and community leaders assigned most weight to human capital in determining the livelihoods to be 30.3 % and 30.6% respectively. Youth assigned greater weight to physical capital (32 %) while men regarded natural

capital as important (30.6 %). This highlights the importance of engaging diverse interest groups in making decisions regarding targeting of relief support.

Significant differences in the HVI standard weights and those assigned by community members were observed ($P < 0.05$). However, there were no significant differences in results of indices between the use of the HVI derived through literature and the community determined weighting. Although there were no differences, community engagement led to the identification of capitals contributing to high vulnerabilities and these differed from HVI standard. When comparing the average weights for each capital across interest groups, households were found to be more vulnerable to shocks introduced to physical (28.6 %), human (28.3 %) and natural capitals (23.3 %). The respective weights derived using the FANRPAN HVI were 25, 25 and 10 %. Furthermore, the community weighted HVI : FANRPAN HVI estimates were 12.6 % : 25 % for financial capital, with the corresponding results for social capital being 7.2 % : 15 %. Significant differences in estimates were observed for financial and natural capital weights that the community assigned when compared with the standard HVI weights ($P < 0.05$). Although there were no significant differences ($P > 0.05$) in the overall HVIs obtained after adjusting with the community weights, the results provided useful insights into the capitals worth taking into account.

It was clear that household vulnerability should be addressed through adopting programming approaches that consider spatial differences. Inter-community differences in assigned weights were also confirmed to occur, highlighting the need for not relying exclusively on standard weights. Therefore, it can be concluded that standard weights might not realistically reflect the dynamics obtaining at household level. For effective development relief programming to be achieved it is advisable to incorporate community-based mechanisms that continuously update information. Community participation would help guarantee ownership of the process, in line with the adage, "nothing for us without us."

Further studies are required to improve on the FANRPAN HVI. It is important that the costs and benefits associated with the use of the HVI are compared to other methods for more informed decisions to be made. The dynamics of community weights need also to be investigated.

