

## A Comparison of Income and Fuzzy Index of Multidimensional Poverty in Fourteen Sub-Saharan African Countries

**Authors :** Joseph Siani

**Abstract :** Over the last decades, dissatisfaction with global indicators of economic performance, such as GDP (Gross Domestic Product) per capita, has shifted the attention to what is now referred to as multidimensional poverty. In this framework, poverty goes beyond income to incorporate aspects of well-being not captured by income measures alone. This paper applies the totally fuzzy approach to estimate the fuzzy index of poverty (FIP) in fourteen Sub-Saharan African (SSA) countries using Demographic and Health Survey (DHS) data and explores whether pictures created by the standard headcount ratio at \$1.90 a day and the fuzzy index of poverty tell a similar story. The results suggest that there is indeed considerable mismatch between poverty headcount and the fuzzy index of multidimensional poverty, meaning that the majority of the most deprived people (as identified by the fuzzy index of multidimensional poverty) would not be identified by the poverty headcount ratio. Moreover, we find that poverty is distributed differently by colonial heritage (language). In particular, the most deprived countries in SSA are French-speaking.

**Keywords :** fuzzy set approach, multidimensional poverty, poverty headcount, overlap, Sub-Saharan Africa

**Conference Title :** ICDEEM 2018 : International Conference on Development Economics and Emerging Markets

**Conference Location :** Amsterdam, Netherlands

**Conference Dates :** May 10-11, 2018