

Geospatial Analysis of the Incidence, Gap, and Severity of income poverty in Akwa Ibom, Nigeria

by

Edidiong R. Etim

School of Basic Studies

University of Uyo, Nigeria

&

Robert E. Ekpenyong

Department of Geography and Natural Resources Management,

University of Uyo, Nigeria

[robert_etim@yahoo.com]

Abstract

The aim of this study was to analyze the incidence of income poverty in Akwa Ibom State, Nigeria using geospatial approach. The study used 550 copies of semi-structured questionnaire to elicit responses from households who were randomly selected through a multi-stage technique from the study area. The questionnaire was made up of questions measuring indicators of poverty. To measure poverty, the Foster-Greer-Thorbecke (FGT) poverty indices namely, headcount index, poverty gap index and poverty severity index were used. Geographical information systems – based inverse distance weighted (IDW) interpolation algorithm and isoline mapping techniques were used in poverty incidence mapping. To describe the distribution pattern, spatial auto correlation was employed. To determine the contribution of the various indicators, multiple regression analysis was used. The result revealed that income poverty incidence was low and randomly distributed within the study area. It also revealed that access to education was responsible for the distribution pattern followed by access to health and transportation. The development and use of GIS for mapping to enhance targeting the poor was one of the recommendations to eradicate income poverty in the Study area.

Key words: geospatial, headcount index, poverty gap index, poverty severity index, isoline mapping.