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SPATIAL ANALYSIS OF HOTSPOTS AND COLDSPOTS OF POVERTY INCIDENCE IN DAVAO CITY, PHILIPPINES

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ABSTRACT

The Philippines' National Economic and Development Authority (NEDA) envisions Davao Region as the nation's Rising Global Frontier. With this, the utmost focus has been given to a faster decline in its poverty numbers. A closer look therefore at the poverty situation in Davao City, being the capital of Davao Region, is essential in the accomplishment and assessment of this goal. Spatial and regression analyses on poverty incidence in Davao City for the year 2015 were conducted in this study. Results of the Spatial Autocorrelation (Moran's I) test performed in ArcGIS confirmed that there is a significant clustering of high and/or low values of poverty incidence among the 'barangays' (smallest administrative divisions) of the city. Running the Hot spot Analysis (Getis-Ord Gi) tool of ArcGIS, it was found that 18 barangays formed hotspots while 24 barangays formed cold spots of poverty incidence. Notably, these hotspots or significant clusters of high poverty incidence were found mostly in the rural areas of Davao City. In performing regression analysis, the Ordinary Least Squares regression model in this paper was found to be suitable. In particular, the variables, namely access to safe sanitation and agriculture as a source of income were found to be significant predictors of poverty incidence in Davao City, Philippines.*

KEYWORDS: *ArcGIS, Coldspot, Hotspot, Hotspot Analysis, Poverty Incidence, Regression Analysis, Spatial Autocorrelation*

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