



Tropentag, October 7-9, 2008, Hohenheim

“Competition for Resources in a Changing World:
New Drive for Rural Development”

Mapping Poverty: How Many Different Geographic Profiles can we Produce? An Application to Latin American Small Area Estimates

GABRIELA ALCARAZ V.

University of Hohenheim, Institute of Agricultural Economics and Social Sciences in the Tropics and Subtropics, Germany

Abstract

The study of the geographic distribution of poverty has gained considerable attention in recent times. Several methods have been developed and tested in different countries with the aim of producing disaggregated poverty incidence estimates that can be portrayed in maps. For the case of Latin America, countries such as Bolivia, Brazil, Ecuador, Guatemala, Honduras, Nicaragua, Panama, and Paraguay have joined these efforts and produced updated geographic poverty profiles. These profiles can serve as support for the identification of priority areas, the allocation of public expenditure, and for policy making. As well, they can aid in the formulation of hypotheses as regard causal factors of poverty and the validation of estimation results. Poverty maps are created by classifying poverty incidence estimates into groups that reflect various degrees of poverty. Several classification approaches are available and very often, they produce different geographic profiles. In spite of this, most of the current poverty mapping exercises lack of precise documentation about the classification approach used and their rationale. This work reviews alternative classification approaches and their implications for map display and interpretation. Using data from selected Latin American countries, the analysis begins with the exploration of the spatial trend observed in the poverty incidence estimates. Afterwards, alternative classification approaches are used for the creation of poverty profiles and compared for consistency with the observed trend. The results clearly show how clusters of certain degrees of poverty appear or disappear depending on the classification approach used and how certain profiles deviate from the observed trend in the unclassified data. It is strongly recommended that poverty map makers evaluate the consistency of their displays with the data trend in order to transmit their findings, and that the proper documentation of the mapping process is included for an adequate map interpretation.

Keywords: Choropleth map, classification method, Latin America, poverty incidence