"Prosperity and Poverty in a Globalised World—
Challenges for Agricultural Research"

Indicator Based Poverty Assessment among Rural Households in Central Sulawesi, Indonesia

Xenia Van Edig[1], Stefan Schwarze[1], Manfred Zeller[2]

[1] *Georg-August-Universtiy Göttingen, Department of Agricultural Economica and Rural Development, Germany*

[2] *University of Hohenheim, Institute of Agricultural Economics and Social Sciences in the Tropics and Subtropics, Germany*

Abstract

Targeting is decisive for the success of development programs and projects focusing on poverty reduction. Hence, a project or programme that seeks to reduce poverty has to find out which households live in extreme poverty. This assessment requires costly, time intensive large-scale surveys. Therefore, there is a need for cheap, time-saving and easy-to-implement poverty assessment tools. The assessment of absolute poverty as well as the definition of suitable indicators to predict absolute poverty among rural household in Central Sulawesi, Indonesia, are the objectives of this paper. The developed poverty assessment tool can be offered to local NGOs and help to reduce poverty in the region. Data was collected from 279 randomly selected households in 2005. From the expenditure data the daily per capita expenditures are derived. The log of this variable is the dependent variable in the regression models. A household is classified as very poor when the expenditures are below IDR 2723 per household member and day, which is equivalent to 1 US\$ PPP. 19.35 % of the households in the research area fall short this poverty line. Beside the expenditure data, indicators of various dimensions of poverty were surveyed and the independent variables for the regressions were derived from these indicators. Applying different multivariate regression models (one-step OLS, two-step OLS and Quantile regression), we analysed which set of indicators yields the highest Balanced Poverty Accuracy Criterion (BPAC). BPAC is defined as the accuracy among the very poor minus the absolute deviation of under-coverage and leakage. We only included indicators in the model which are easy-to-survey to assure that the tool is applicable at low costs. One-step Quantile regression yields the highest BPAC of 72.22 %. For applying the model in practice, NGOs need to survey the found indicators, multiply them with the coefficient from our regression model, sum them up, and add the constant. If the value is below the poverty line, the household can be categorised as very poor.

Keywords: Indicators of poverty, Indonesia, poverty assessment

---

Contact Address: Xenia Van Edig, Georg-August-Universtiy Göttingen, Department of Agricultural Economica and Rural Development, Göttingen, Germany, e-mail: xedig@agr.uni-goettingen.de