

Assessing the Effectiveness of Aid to Disaster-Prone Households using Local Economy-Wide Impact Evaluation Approach

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Natural disasters have negative consequences to both industries and households. Industries suffer from disruptions in their production activities while households experience problems such as damages to their houses and other assets. In the case of households, this would require them to spend unexpected amounts that would deplete their resources. In developing economies, this is more evident for households as a larger share of the population may suffer from such, however, the need to conduct the necessary repairs is of urgent concern. This study considers a local economy wide impact evaluation (LEWIE) approach to evaluate the effectiveness of government aid to disaster-prone households in alleviating poverty. LEWIE is a village level general equilibrium model which measures the transmission of impacts across the economy to include spillover effects of the aid payment to both treated and non-treated households. However, the amount of the aid and the behavior of households, may vary and yield different results. Sensitivity analysis on the amount of the aid to be given, and elasticity of substitution between factors of production using the latin hypercube design of experiments to observe the impact of introducing such measures into the economy that will maximize the impact of aid given. A village economy from Taylor (2012) will be used to illustrate the method introduced in this study.