Japan Geoscience Union Meeting 2013
(May 19-24 2013 at Makuhari, Chiba, Japan)

HSC04-P01 Room:Convention Hall Time:May 23 18:15-19:30

Relationship between Farm Income with Migration Rate of Rural Communities (Case study: Ayah Village, Kebumen Regency)

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Agriculture is the dominant sector in Kebumen. 64% of the population depends on agriculture. However, since the monetary crisis in 1998 weakened this sector. Decline in the agricultural sector is spurring people to look for other alternatives to meet their basic needs. One alternative is to migrate to other areas in search of better jobs. Research on this issue is very important because rural migration greatly affects the economy of the village.

The purpose of this study is (1) Determine the amount of net income of farm households in Ayah Village (2) Knowing the rate of labor migration in each household in Ayah Village (3) Knowing the relationship between farm income with labor migration rate in each household of Ayah Village. This research is experimental research with survey method. Data collected in the form of primary and secondary data. The primary data obtained through structured interviews. respondents were selected using purposive sampling method. Secondary data needed such as agricultural yield data from farmers' groups and data on the number of migrants from the government and local NGOs.

The results showed there is an association between the agricultural income on migration rate of rural communities. The lower income makes the higher migration.

Keywords: Farm Income, Rural Migration, Cost and Benefit of Farming, Migration Rate, Rural Migration

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The Potential Role of Formal Insurance in Natural Resources Management: Evidence from Weather Index Insurance in Zambia

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Poor people in rural areas of developing countries depend on natural/environmental resources for their livelihood. Particularly, once any negative shock happens, their dependence on such resources increases to cope with it. Such behavior creates concerns about the degradation and exhaustion of such resources. The concerns may be mitigated, if formal insurance works well. This is because farmers with an insurance payout will reduce their use of natural resources as an ex post coping strategy in the aftermath of a shock. In order to explore this possibility, we investigate demand for formal weather index insurance in a rural area of Zambia, where people depend heavily on natural resources, and there are no formal financial institutions.

Index insurance, basing insurance payouts on an officially observable index highly correlated with crop yield, has been expected a promising way to insulate the vulnerable against weather shocks. However, previous studies have reported lower take-up rates than expected. Although they also have pointed out impediments to insurance take-ups such as liquidity constraints, further investigation is required to understand them fully. One of potential barriers, which have not been tackled well, is ex ante self-insurance mechanisms employed by farmers for precautionary purpose.

To examine the relationship between the mechanism and insurance demand, this paper utilizes data for two years from a pilot scheme selling index insurance based on rainfall amounts in rural Zambia. Most of the farmers purchased too small amounts of the rainfall index insurance contract to completely shield them from weather risk, although the take-up rates are extremely high (more than 90% in both years). First, this paper presents descriptive evidence on the determinants of rural farmers' demand for weather index insurance. We show that impediments to insurance purchases in the scheme are (1) risk aversion, (2) limited trust in insurance provider, and (3) poor understanding of the insurance contract, all of which are consistent with findings from previous literature.

Then, we discuss the relationship with small livestock saving, one of farmers' essential self-insurance mechanisms in the study site. Even after controlling wealth levels, we find a concave relationship among them, suggesting that farmers in the site have strong demand for further insulating them against weather risks. Given the empirical result, we speculate that only traditional self-insurance mechanisms are not enough to reach the optimal level of precautionary savings. Overall, this paper provides suggestive evidence on the potential role of weather index insurance, allowing farmers to cope with weather shocks without an ex post excess dependence on natural resources. Future research will offer direct evidence on the causal impact of formal insurance provision on farmers' use of natural resources after negative shocks.

Keywords: natural resources management, weather risk, weather index insurance, Sub-Saharan Africa