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Farmers' Perception about Flash Floods and Landslides in the Northern Mountainous Regions of Vietnam

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Abstract

Flash floods and landslides are considered as recurring serious disasters which frequently affect Vietnam, especially the Northern Mountain areas. The study, therefore, was carried out to explore the effect of flash floods and landslides to people living in these regions. Moreover, we analysed the perception of farmers towards these climate-related events. The data collected from Yen Bai province in Van Yen district, one of the most frequently affected provinces by flash floods and landslides, in the Northern regions. An Binh, An Thinh and Dai Son were purposively selected for conducting 6 Focus Group Discussions (FGDs) and household surveys (405) in 2014. The results showed that decline in productivity, decrease in income, more hard-working condition and increase in daily expenses were the mostly observed impacts of these natural disasters in the communes. The analysis also revealed that almost 45 % of farmers perceived an increasing trend in the frequency of flash floods and landslides over the past 15 years. A Multinomial Logit (MNL) model, then, is used to analyse the determinants of farmers' perception of flash floods and landslides. The Ordinary Least Square (OLS) model was fitted and tested for multicollinearity by using the variance inflation factor (VIF). The model, in addition, was run and tested for the validity of the independence of the irrelevant alternatives (IIA) assumptions by using both the Hausman tests and the Small — Hsiao tests. The MNL analysis indicated that farmer's perception of flash floods and landslides was determined by sex, experience in agriculture, ethnicity, level of education, farmsize, distance to market, household status and climate information.

Keywords: Flash floods and landslides, Multinomial Logit model, perception, Vietnam, Yen Bai province