



Tropentag, September 9-11, 2020, virtual conference

“Food and nutrition security and its resilience
to global crises”

Effects of Climate Change on Food Security of Smallholder Farmers in Nepal and on Migration

GIRI PRASAD KANDEL, MIROSLAVA BAVOROVA

Czech University of Life Sciences Prague, Fac. of Tropical AgriSciences, Dept. of Economics and Development, Czech Republic

Abstract

Climate change endangers food security mainly of smallholder farmers. Food insecurity is an important push factor of migration and strategy to safeguard livelihood in subsistence farming communities. In Nepal, most of the mountainous households are experiencing effects of climate change such as change in patterns of temperature and precipitation. To cope with climate change scenarios, people are using different adaptation strategies such as use of improved crop varieties, improved irrigation systems and technologies as well as off-farm activities (for instance seasonal migration). This research is intended to understand the link between climate change adaptation of smallholder farmers, food security and migration using a case study in the Baglung district (below 3,500 m - Tarakhola: 2,000-2,400 m) and Mustang district (lower Mustang below 3,800 m - Kunjo: 2,420 m, Marpha: 2,700 m, Muktinath: 3,664 m) in Nepal. The main aim of my study is to explore the theoretical background and interlink the concepts of migration with food security. Further, the use of traditional and modern climate change adaptation strategies will be connected with the food security and livelihood of smallholder farmers as a part of the concept. It is also anticipated to figure out how the topographic and demographic factors influencing the adaptive behaviour and strategies. Mixed method approach with quantitative questionnaire survey and qualitative expert interviews will be used in my field survey to account for various topographic and climate conditions at the end of year 2020. A total of 240 samples respondents (60 from each village) will be selected using simple random sampling technique. And about 15 qualitative expert interviews will be conducted. The quantitative collected data will be analysed along with descriptive statistics (mean, median, mode and etc.) and inferential statistics (multi-factor models). In the end of my study, I will be able interlink different factors such as adoption of climate change, food security, livelihood and migration.

Keywords: Adaptation, food security, Himalayan range, impacts, livelihood, Nepal, perception, smallholder farmers