

Leibniz Universität Hannover



Institute for Environmental Economics and World Trade



**Impacts of Shocks and Coping Strategies
on Food Security**

**A Case Study from the Coffee Growing Area of Araku Valley,
India**

Master Thesis

Submitted in partial fulfillment of the requirements of the award
of

Master of Science in International Horticulture

by

Wit Yee Tun
(M.Sc. 21)

Supervisors

Prof. Dr. Ulrike Grote
Dr. Trung Thanh Nguyen

Impacts of Shocks and Coping Strategies on Food Security: A Case Study from the Coffee Growing Area of Araku Valley, India

Abstract

Being a prevalent beverage crop, coffee plays a significant role in the economy of many countries, especially in developing economies. India is very engaged in the coffee industry, with a special focus on organically grown coffee. However, increasing risks in the environment of farmers hamper the development of the sector inflicting livelihood problems such as food security. India has a large proportion of food-insecure people in their population and studies highlighted the trend of seasonal food insecurity of coffee farmers across the world. Farmers elicit various mechanisms to cope with hardships on one hand.

On the other, the cooperatives where they are often members, provide technical and market support for certification schemes to improve the performance of the coffee sector. This research primarily aims to study the impact of shocks and coping strategies on food security in the coffee context of Araku Valley, India. More specifically, this research answers i) the prominent trends of coping mechanisms in study area, ii) determinants of coping strategies, and iii) impacts of shocks and coping mechanisms on food security among certified and non-certified farmers. A qualitative analysis and two-stage least squares (2SLS) regression were employed to yield the answers using the primary data from 2018 field survey. A probit regression was estimated in the first stage of 2SLS, followed by multivariate regression. The second stage included an instrumental variable to avoid the endogeneity problem.

Not responding to shocks is the most common trend among farmers in the study area. Analysis results suggested that being a member of cooperative and total household income are influencing factors of coping decisions. However, shocks and coping mechanisms do not directly affect the food security of coffee farmers.

Keywords: Shocks, Coping Strategies, Certification, Coffee Farmers, Food Security