

## Role of Wild Food Items for Seasonal Consumption Smoothing: The Case of Rural Zambia

KITSUKI, Akinori<sup>1</sup>, SAKURAI, Takeshi<sup>2\*</sup>

<sup>1</sup>Graduate School of Economics, Hitotsubashi University, <sup>2</sup>Institute of Economic Research, Hitotsubashi University

### Introduction

It is widely recognized that while rural farmers face a number of income risks, they have developed a variety of strategies to mitigate these, including the diversification of income sources, risk-sharing with friends and relatives, and settlement in safe areas. From the viewpoints of economics, farmers will improve their welfare if they smooth their consumption levels. However, a change in consumption and its sources are in themselves important strategies to manage unexpected falls in income, although consumption levels do not appear to be smoothed by such strategies (it is possibly their utility that may be smoothed). Nevertheless, existing literature provides little empirical evidence regarding changes farmers may make to their consumption to mitigate income shocks during and after a shock event. One explanation for a lack of evidence is that there is no dataset available to enable such an empirical study. However, our household survey data includes high-frequency panel data regarding household consumption during a period when farmers suffered through heavy rainfalls. This data provided us with a rare opportunity to investigate the consumption adjustment behavior of farmers when they experienced income fluctuations. Thus, the aim of this article is to describe how surveyed households change the composition and source of consumption over a two-year period, to better enable us to develop an empirically testable hypothesis for future research.

### Survey Outline

The data used in this chapter were collected as part of the Resilience Project of the Research Institute of Humanity and Nature. The Project identified three study sites in the Southern Province of Zambia, the most drought-prone zone in the country. The three sites, which we name Site A, Site B, and Site C, are spread over the slope adjoining Lake Kariba within some 15 km radius and are agro-ecologically distinctive. Site A is located on the lower terrace of the slope on the lakeshore (altitude 500 m); Site C is on the upper terrace of the slope on the southern edge of the Zambian plateau (altitude 1050 m); and Site B is located on mid-escarpment between the other two sites (altitude 850 m). Based on a village census conducted before the rainy season in 2007, 16 households in each site, thus 48 households in total, were selected for household survey. The household survey consists of three components: (i) interview of sample households; (ii) anthropometric measurement; and (iii) rainfall measurement at the plot level. The interview was conducted every week by an enumerator, using structured questionnaires to obtain information about household agricultural production, income, consumption, and time use. This article uses data from a two-year period, November 2007-December 2009.

### Conclusion

This article has discussed how farmers in rural Zambia adjust consumption levels and its composition to mitigate the impact of income fluctuations. First, we demonstrated that farmers smooth their consumption level of staple foods, and vegetables and fruit, and that they use animal/fish products and non-food items as buffers. Second, we illustrated that cash purchases played a critical role in smoothing consumption levels regarding staple foods, and vegetables and fruit. Finally, we showed that the collection of wild food items also played an important role in the smoothing of consumption levels for vegetables and fruit.

Keywords: wild food items, food consumption, consumption smoothing, seasonality, Zambia, Sub-saharan Africa