



Tropentag, September 11-13, 2024, hybrid conference

“Exploring opportunities ...  
for managing natural resources and a better life for all”

## Does diversification of farming reinforce diversity of diet?

ERMIAS TESFAYE TEFERI<sup>1</sup>, CARLO FADA<sup>1</sup>, ENRICO PE<sup>2</sup>

<sup>1</sup>*The Alliance of Bioversity International & CIAT, Food Environment and Consumer Behaviour, Ethiopia*

<sup>2</sup>*Scuola Superiore Sant'Anna, Inst. of Life Sciences, Italy*

### Abstract

The purpose of this study is to investigate the relationship between the diversity of foods consumed by households and the variety of agricultural products produced, as well as on household income and market involvement. Data were collected from 303 farm homes in the Meket area, which is in the northeastern part of Ethiopia. Through the process of registering the various food crops and livestock species that the household has grown and reared over the course of the previous year, production diversity was successfully documented. For the purpose of determining the impact that crop production has on dietary diversity, the Simpson diversity index and crop species count were computed for sample households and then incorporated into the Poisson model in a different manner. In a similar vein, the number of different types of livestock that a household possessed was used to determine the variety of the animals. According to the findings, roughly 29 percent of the families that were included in the sample produced and consumed more than six different types of crops during the most recent production season and the recall period, respectively. The findings of the econometric calculation showed that there is a positive and substantial relationship between agricultural production and dietary diversity. This means that an increase of one unit in crop production diversity leads in a 25 percent rise in dietary diversity. In a similar vein, the revenue from eucalyptus plantations, gender, the distance to market, and the size of the family all have a positive and substantial impact on the dietary habits of individuals. According to the findings of the research, diversification seems to have significant consequences in terms of diversity in diets and, therefore, the health of rural families. This is in addition to the benefit of risk aversion, which is the most often cited advantage of diversification. When the findings of the research are taken into consideration, significant implications are highlighted.

**Keywords:** Dietary diversity, Ethiopia, production diversity, Simpson index