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## Consumer preferences and willingness to pay for certified dried fruits and nuts in Central Asia

EMIL BEGIMKULOV, DIETRICH DARR

*Rhine-Waal University of Applied Sciences, Fac. of Life Sciences, Germany*

### Abstract

Dried fruit and nuts play an essential role in the food security and incomes of rural populations of Central Asia (CA). These products partially come from agroforestry (AF) systems, which are viewed to be more sustainable than intensively managed fruit orchards, or nuts collected from the region’s dwindling natural forests, given the significant environmental impact of these production systems. Yet, the expansion of AF systems in the region faces limitations such as a lack of knowledge, underdeveloped value addition through processing, absence of environmental and social standards (ESS), and markets that do not adequately differentiate products based on their origin, quality and environmental impact. While Western consumers already demonstrate a growing awareness and consciousness regarding health, environmental, and social impacts of their food consumption choices, it is less clear whether consumers in CA share similar views. Hence, considering the high cost of introducing ESS, small and medium food processing enterprises (SMEs) of CA are unsure about the potential strategic advantage they may obtain from implementing such voluntary standards. In contrast to the substantial research on consumer preferences for fresh fruits and vegetable products, the knowledge in the field of dried fruits and nuts collected from wild forests and AF systems is relatively limited. At the same time, the emphasis on global markets often overshadows the importance of rural and local markets and the trade of certified dried fruits and nuts in developing countries. This study addresses these gaps by a) developing a conceptual framework for consumer preferences and willingness to pay (WTP) for certified food and b) conducting a survey of 300 households and 100 shop buyers in Kyrgyzstan. By employing Discrete Choice Experiments developed via Bayesian D-efficient design, the study examines consumer WTP for certified dried fruits and nuts across multiple dimensions, including food safety, environmental impact, social aspects, place of origin, and price-making it distinct from other studies focusing on fewer dimensions. The findings of this study offer valuable scientific and practical implications for food processing SMEs in CA, guiding their strategies and decisions in a rapidly evolving market landscape.

**Keywords:** Agroforestry, Central Asia, discrete choice experiments, forests