

Abstract

Mango (*Mangifera indica* L.) is produced and consumed globally, with value addition offering significant economic benefits (Kundu et al, 2020). In Kitui County, post-Covid efforts demonstrated how mango processing can enhance economic performance and reduce poverty (Mutua et al, 2022). However, traditional production and marketing methods have hindered the adoption of more efficient and innovative approaches (FAO, 2019). The focus of this study was an economic analysis of mango production in Kitui County, Kenya. The main objective was to conduct an economic analysis of mango production in Kitui County, Kenya. Specific objectives included; to identify the main resources influencing the production of mango in Kitui County, to determine whether farmers efficiently utilize the identified resources and finally to determine which of the identified resources significantly influences mango production. Primary data was collected via questionnaires, while secondary data was sourced from relevant literature. Data was analyzed using SPSS version 30.0. Findings revealed that most mango farmers were smallholders on 1–20-acre farms, with 84.4% of farmers solely dependent on agriculture and livestock for their livelihoods. Popular mango varieties included Apple, Tommy, Kent (exotic), Ngowe, and Dodo (local), while Vandyke, Keit, Boribo, and Batawi were less preferred. Pest management methods varied, with 37.4% using Integrated Pest Management (IPM), 17.5% biological control, 26.1% chemical control, and 19.1% not using any method—largely due to a lack of consistent extension services for 70% of farmers. Additionally, 75% of mango growers did not engage in value addition, while 25% processed mangoes into juice and flakes through cooperatives. The study found that investments in fertilizer, labor, transport, and agricultural technology significantly increased profitability. The study recommends that research organizations such as KARLO should establish certified propagation centers to provide farmers with affordable, high-quality varieties like Kent and Keitt in order to enhance mango production. It also recommends that government financial support should be directed through cooperatives to help farmers invest in essential infrastructure such as irrigation systems and value-added processing plants; that private sector and NGOs involvement should be encouraged to supply subsidized inputs and promote sustainable farming practices; capacity building programs as well as the adoption of Integrated Pest Management

(IPM) should be promoted to ensure environmentally sustainable and high-quality mango production.