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Identification of Loss Hot Spots of the Post-harvest Chain during the COVID-19 Pandemic: A Case of Banana and Mango Supply Chain

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Abstract

Banana and mango are the main types of fruit crop cultivated in Polonnaruwa District. Income generated from commercial level fruit cultivations help farmers to manage their household economy. COVID-19 pandemic, lockdown, curfew, restricted movements and closure of public markets and economic centers significantly damage the fresh produce supply chains of the country, especially in key farming areas like Polonnaruwa. Present study was conducted to identify the loss hot spots of the papaya and mango supply chain during COVID-19 pandemic, measure the economic loss and find out the social consequences of it. A total sample of 75 respondents, including farmers, collectors, wholesellers, transporters, and retailers randomly selected from three Divisional Secretariats (Madirigiriya, Hingurakgoda, Thamankaduwa) of Polonnaruwa District. Data were analysis by using both qualitative and quantitative techniques. Primary data were gathered through a field survey using a structured questionnaire, focus group interviews, in-depth interviews, and participatory observations. Both banana and mango supply chains were shorter, fragile and concentrated regionally. Regional public markets and dedicated economic centers were connecting regional supply chains into national level. Mango supply chains showed two different structures; most common one has similar structure of banana and the other type ended up with exporters. Closure of market operations crippled the regional supply chains and farmers unable to sell their products. Postharvest losses were high at farm gate, farmers hardly receive any income. Limited number of farmers was able to sell fruits to mobile vendors at very low prices. Some had to throw their rotting crops into piles of rubbish with miserable, which could not be sold because of restrictions on circulation. In addition to that collapse of the tourism industry, the majority of wholesale buyers reduced average purchases and tried to get the harvest from farmers at a lower price. New retail formats were born during the pandemic and most common were the mobile retailers. Household economies of the farmers faced severe financial crisis and issue were doubled with the extra financial requirements for the children's online education. Resources waste reached to the highest level and farmer debts reached to alarming levels.

Keywords: Post-harvest chain, COVID-19, Banana and mango