

## SMART TECHNOLOGY OPPORTUNITIES FOR SMALL AND MEDIUM TROPICAL FRUIT PRODUCERS IN BANGLADESH

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The agricultural sector plays a vital role in Bangladesh's economy, with tropical fruits like mango, jackfruit, guava, ber, papaya, banana, hogplum, litchi are being a significant contributor to the nation's export revenue and rural livelihoods. But post-harvest handlings of fruits scenario is quiet unsatisfactory and mostly comprises with traditional techniques practiced by the growers, traders and processors, owing to which considerable deterioration in physical and nutritional qualities of the harvested produced in Bangladesh. General Findings on Postharvest Losses of Vegetables or any Other Crops Hassan et al. (2011) observed that post-harvest wastage of 13 selected fruits and vegetables in major growing areas annually costs the country about Tk. 3,442 crore on retail price. Findings also showed that the post-harvest loss ranges from 23.6 to 43.5 percent of the fruits and vegetables that include jackfruit, pineapple, papaya, mango, litchi, banana, orange, cucumber, cauliflower, tomato, okra, brinjal, and red amaranth. It is estimated that the post-harvest loss of fruits and vegetables in the country is about 25-35% (Mia and et.al, 2008). So, improvement of indigenous techniques to shift modern smart one is very necessary to prevent this huge post-harvest loss of tropical fruits. In recent years, the advancement of smart technologies has opened up new opportunities for small and medium-sized tropical fruit producers to enhance their productivity, reduce losses, and access global markets more effectively. Fruit producers can use precision agriculture mechanism, data driven decision making tools, proper post-harvest management technology, explore e-market place. Producers can use some smart technologies (operations) after harvesting like mango bagging, hot water treatment after harvest for preventing the fruit from ear rot disease, mango bar preparation; guava pulping for longtime preservation and using it in jam/jelly and add further value on it; technology for improving keeping quality for litchi and strawberry; bagging banana fruits to prevent insect, diseases; fresh green coconut water preservation etc. Farmers face some challenges like limited access to information, market access, lack of technical and financial infrastructures. Small and medium fruit producers need human resource development on post-harvest technologies; infrastructure development for R & D to ensure education, extension, training, input supply, marketing, processing and storage; develop supply chain for fruits; develop co-operative marketing facility; interest free bank loan should arrange. Using smart technologies produces can manage post-harvest loses of fruits and can raise a new SME.