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ANALYSIS OF FACTORS AFFECTING THE POSTHARVEST LOSS IN THE LITCHI VALUE CHAIN, DINAJPUR, BANGLADESH

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A study was conducted at Van Hall Larenstein University of Applied Sciences on the litchi value chain to analyse the factors affecting postharvest loss in Dinajpur, Bangladesh. This study had the objectives to illustrate the dynamics of the litchi value chain and analyse the factors affecting the postharvest loss among different litchi producer groups. For visualising the value chain and the opportunities and constraints, key informants were interviewed. Moreover, a semi-structured questionnaire was used to analyse the factors affecting postharvest loss. In the litchi food system, producers, Aratdar, Pikar, retailers and consumers are linked in a chain to supply litchi. This chain is male-dominated in terms of activities, access and control, where women are involved in sorting grading and packaging. Litchi in Dinajpur has specific qualifications for its climatic condition, which is considered a major strength. On the other hand, damage from the litchi fruit borer, scarcity of quality seedlings, the irregular bearing habit of litchi tree, fruit and flower dropping are the major weaknesses. However, high demand with a high price for litchi from Dinajpur is a major opportunity for the actors. Recent changes in day and night temperature may be becoming a threat for the litchi tree to achieve quality production. Regarding these constraints, litchi producers are failing to meet the consumers demand in the chain. Litchi producers hold 90.90% value share, where Pikar and retailers hold 4.55% value share each. The practice of preharvest technology was found similar in most of the farms, where pesticides, Calcium and Boron spray and use of plant growth regulators were selected. Furthermore, the use of plastic crates for transportation is becoming popular among producers rather than using single-use bamboo baskets. On the other hand, most of the remaining from the litchi trees are left in the orchard for decomposition, however, on-demand it is used for fuel purposes. Using litchi leaves in packaging is a common practice among the farmers, which facilitate the reuse of the plant material after harvesting. According to the study, producers were affected by 13.88% to 19.20% loss per 1000 litchi and 29.98% to 34.60% loss per 1000 Tk (9.92 €). Most of the respondents stated that they have enough finance for the reinvestment and the preharvest and postharvest technology. Therefore, in each season money gained from the litchi business is reinvested in the orchard for facilitating more production.

Keywords: Value chain, litchi, postharvest loss, value share