A Situational Analysis of Wild Animal Damage in *Kandyan* Homegarden System

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Wild animal damage is a big challenge for the cultivation and management of home garden crops across the country making significant yield losses, physical damages, and provoking financial losses. The *Kandyan* home garden system (KHGS) is considered one of the most sustainable agricultural ecosystems and wild animal attack in the KHGS has increased at an alarming rate over the last two decades. The present study aimed to understand and analyze the current situation of crop damage by wild animals within the KHGS. A questionnaire survey was conducted in 60 home gardens in the *Kandy* district. The quadrat method was used to assess the crop damage of the wild animal attack in six selected home gardens over two months. The risk index and severity index were calculated to access the risk and the severity of the wild animal damage. Currently practiced control methods were also assessed for their effectiveness and the ethnobiological knowledge related to wild animal damage was also extracted. Data were analyzed using the chi-square test and descriptive statistics methods. This study confirmed that wild animal attack is a main problem in the KHGS which requires immediate attention. Monkey is the most distractive and severe animal, and they have adapted to most of the widely practiced control measures. The highest risk index was observed for wild boars (0.870), followed by monkeys (0.833), porcupines (0.790), and giant squirrels (0.550). The peacock attack is not significant in KHGS yet. Annona, avocado, rambutan, guava, and durian was found to have more than 70% of yield losses due to wild animal damage. The currently practiced methods would not be effective to control wild animal attacks in KHGS. It implies that a well-focused strategic plan is required to handle this issue without further delay.

Keywords: *Kandyan* home garden, Risk index, Severity index, Wild animal damage

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