

Human-Elephant Conflict and Mitigation Measures in Buffer Zone of Bardia National Park, Nepal

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Abstract : Understanding Human-Elephant Conflict (HEC) is very important in countries like Nepal, where solutions to escalating conflicts are urgently required. However, most of the HEC mitigation measures implemented so far have been done on an ad hoc basis without the detailed understanding of nature and extent of the damage. This study aims to assess the current scenario of HEC in regards to crop and property damages by Wild Asian Elephant and people's perception towards existing mitigating measures and elephant conservation in Buffer zone area of Bardia National Park. The methods used were a questionnaire survey (N= 178), key-informant interview (N= 18) and focal group discussions (N= 6). Descriptive statistics were used to determine the nature and extent of damage and to understand people's perception towards HEC, its mitigation measures and elephant conservation. Chi-square test was applied to determine the significance of crop and property damages with respect to distance from the park boundary. Out of all types of damage, crop damage was found to be the highest (51%), followed by house damage (31%) and damage to stored grains (18%) with winter being the season with the greatest elephant damage. Among 178 respondents, the majority of them (82%) were positive towards elephant conservation despite the increment in HEC incidents as perceived by 88% of total respondents. Among the mitigation measures present, the most applied was electric fence (91%) followed by barbed wire fence (5%), reinforced concrete cement wall (3%) and gabion wall (1%). Most effective mitigation measures were reinforced concrete cement wall and gabion wall. To combat increasing crop damage, the insurance policy should be initiated. The efficiency of the mitigation measures should be timely monitored, and corrective measures should be applied as per the need.

Keywords : crop and property damage, elephant conflict, Asiatic wild elephant, mitigation measures

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