

PREFACE

Human-wildlife conflict (HWC) refers to undesirable interactions between humans and wild animals that impact both people and their resources, as well as wildlife and their habitats. From 2006 to 2008, field data for 24 Indian states and their 540 forest divisions were collected in relation to forest division-wise conflict cases involving human death, human injuries, livestock kills, crop damage, and property damage, as well as the compensation provided. It contains records for the occurrence of HWC as well as the compensation paid for the same per division. The data focuses primarily on HWC cases caused by terrestrial carnivores and herbivores, including the tiger, lion, leopard, wild dog, wolf, black bear, brown bear, sloth bear, elephants, black buck, monkey, hyena, rhino, gaur, chital, Sambar, wild boar, Langur, and Nilgai. Hunsur was chosen as the primary study area because it faced multiple threats and experienced a high frequency of conflict.

Microsoft Excel and Past 4.10 applications were used for the overall data analysis and statistical approach. All visual, digital, and hybrid classifications were completed with software such as ERDAS Imagine 2014, ArcMap 10.8, and Q-GIS 3.2. Forest cover, forest fragmentation, road network, and fire analysis were performed for the years 1980, 2005, and 2022. For modelling forest fragmentation in the study area, the LFT tool in Arc Map 10.8 was used. Suomi-NPP data was downloaded for the entire study region from 2002 to 2021, and fire occurrence was examined on a monthly and yearly basis. Survey of India (SOI) toposheets were used to digitise roads.

The Nagarhole Tiger Reserve is the largest forest area in the Hunsur wildlife division. Here, there is a significant reduction in forest cover. An increase in the settlements has been observed near the Taraka Dam, which was built in 1983. The modelling of forest fragmentation shows a significant increase in perforated areas in Rajegowdanahundi, Thuppadakola, and Annur, indicating that HWC is likely in these areas, and increased perforation and reduction in core increase the possibility of wild animals entering or crossing human habitats. Roads attract herbivores first, then carnivores, increasing the risk of conflict. Fires are common in Metkuppe, Nalkeri forest, Metikuppekaval, and Arkeri forest. Wild animals are scared and escape into human habitats for protection as a result of sudden and abrupt fires in forest areas, causing conflicts. Compensation for the loss of human life and property is frequently used as a solution for managing conflict, but it is only a temporary solution that does not address the underlying causes of HWC.