ROLE OF COMMUNITY FORESTS IN FAUNAL DIVERSITY CONSERVATION: *A CASE STUDY OF THE COMMUNITY FORESTS WITHIN SATBARIYA RANGE POST OF DANG DISTRICT, NEPAL*

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ABBREVIATIONS AND ACRONYMS

BCF	Barandabhar Corridor Forest
CF	Community Forest
CFUG	Community Forest User Group
DNPWC	Department of National Parks and Wildlife Conservation
GON	Government of Nepal
GPS	Geographical Positioning System
IUCN	International Union for Conservation of Nature and Natural Resources
MFSC	Ministry of Forest and Soil Conservation
NP	National Park
NTFP	Non Timber Forest Product
PCP	Participatory Conservation Programme
SWR	Suklaphanta Wildlife Reserve
TAL	Terai Arc Landscape
TCL	Tiger Conservation Landscape
UNEP	United Nations Environment Programme
VDC	Village Development Committee
WWF	World Wide Fund for Nature

Abstract

This study was conducted to identify the role of community forests in the conservation of faunal diversity in various community forests practiced in Lamahi bottleneck area of Terai Arc Landscape in Dang district, Nepal. The study aimed to understand and evaluate the role of community forests in biodiversity, especially faunal conservation efforts. Different methods such as questionnaire survey, group discussion and faunal survey in transect line was used to collect data for the determination of faunal diversity, abundance and distribution pattern of wild animal, vegetation type and wildlife-people conflict. The variance to mean ratio was used to determine distribution pattern and chi-square test was used to test hypothesis that the prominent wildlife species were uniformly distributed in all habitat types in the study area.

Study shows that the major mammalian species found are; wild boar, barking deer, spotted deer, four horned antelope, sambar deer, common leopard, leopard cat, jungle cat, sloth bear, hyaena, and jackal. Tiger comes seasonally specially in the winter season in the area. A total of 251 signs of wild fauna was encountered in ten transect taken in the area. Among these signs, the highest signs encountered in the area are 75 which is of barking deer, 72 of wild boar, 23 of sloth bear, 14 of common leopard, 9 of hyaena, 6 of spotted deer, 5 of four horned antelope, 4 of sambar deer along with the sign of common monitor, common langur, porcupine, jungle cat, small civet and hare. The result shows two types of distribution pattern of major wildlife species such as barking deer, wild boar and sloth bear shows clumped type of distribution pattern and common leopard shows the uniform type of distribution pattern.

Seasonal visit of wild elephant and blue bull to the area are some positive sign of development of suitable habitat for wildlife as they are not seen before the establishment of the community forest. Almost 99% respondents agree with the appearance of wild elephant in their community forest and only 14.6% agree with blue bull. Blue bull is reported only in the western part of the study area i.e. Ameliya and Jalkundi area which is close to the extension area of Bardia National Park.

Major bird species found are; Indian Peafowl, Kalij Pheasant, Red jungle fowl, and other common birds (Appendix VI). Indian Grey hornbill and Oriental Pied hornbill are frequently

found besides, some people also told about the occurrence of great hornbill in the area. Cobra, Common krait, Asiatic rat-snake, Common monitor, Golden monitor etc are common reptiles found in the area. Rock python is also found in the area. Gharial corcodile and Mugger crocodile both are found in the Rapti River. Turtles are found in Rapti Rivers and also in forest areas during rainy season.

Major vegetation found in the area are; *Shorea robusta*, *Acacia catechu*, *Dalbergia latifolia*, *Anogeissus latifolius*, *Adina cordifolia*, *Terminalia alata*, *Mallotus philippensis*, *Phoenix sylvestris*, *Berberis* etc (Appendix VII). And based on the general observation three forest types such as Sal forest, Mixed forest and Riverine forest are recorded in the area. During the study it is found that spotted deer are distributed mainly eastern part of the study area where Sal forest is dominated. Barking deer and four horned antelope are distributed mainly western part of the area which has relatively rough terrain and Mixed forest type. However, other animals like leopard, wild boar and sloth bear are distributed in all the areas.

Peoples are suffered from economic loss due to the increasing number of wildlife in the community forest as the wild animal damages their crops and kill their livestock. Among the respondent, 93.8% told about the increase of wildlife in the area, 81.25% told about the agriculture land visit by wildlife and 89.2% told about the livestock damage. Wild boar, wild elephant, spotted deer, barking deer, leopard, jackal, jungle cat and sloth bear are the major animals due to which conflict rises in the community. Elephant comes seasonally but made large scale damage. The extent of people wildlife conflict is comparatively higher especially within the settlements located near the forest area.

Poaching is high in these community forests. Among the respondent, 72.9% were agreed with poaching that occurs in the area. During this study, groups of poachers were also encountered within the forest with gun and other weapons. Common langur and Rhesus monkey are disappeared from the community forest due to poaching. Their dried meat is sold in the market through their fake identity. Among the birds, vultures are disappearing nowadays. It is mainly due to two reasons first is poison, used in dead body of domestic animal and the second is felling down of large and tall trees by forest user groups which are very essential for the vultures for roosting and nesting.