

ABSTRACT

Land use maps on a scale of 1:100,000 which were

The habitat types within the Mda Walawe National Park were identified and surveyed using a combination of Remote Sensing techniques and ground studies, in an effort to compile the baseline information that is essential for the formulation of management guidelines. Aerial Photographs were the major Remote Sensing tool utilized in this study, and proved to be the most feasible means of detecting and monitoring distribution of and changes in, Land use/Vegetation cover categories. Satellite Imagery was utilized for preliminary observations and as **a near ortho photo base for the** compilation of Land use maps, but could not be utilized as a methodology for monitoring temporal changes because of the inability to map boundaries on such images.

13 Land use/Habitat/Vegetation cover categories - Semi-evergreen forests, Riverine forests, Forest plantations, Scrub jungles, Grasslands with tree cover, Open Grasslands, Barren lands, Eroded lands, Rock outcrops, Cultivations, Villages, Flood zones, and 'Others' - were identified using Aerial Photographic Interpretations.

Land use maps on a scale of 1:100,000 which were compiled from Aerial Photographic Interpretations, indicate that a temporal shift away from natural high forest cover to man created grasslands and barren lands, was observed to have prevailed in the area between 1956 and 1982. The extent of the park under forest cover decreased from 85% (267 km²) to 9% (28 km²) in this period while the extent of open grasslands, barren lands and eroded lands, increased from 1% (5 km²) to 48% (150 km²).

The trend of succession in the park as suggested by the interpretation of the sequence of land use maps is from cleared land (abandoned cultivations) to grasslands and then to scrub. Most of the degradation within the park may be directly attributable to human impact.

The grasslands of Uda Walawe have a low species diversity. Imperata cylindrica, Pennisetum polystachyon and Cymbopogon nudus predominate.

Buffalo within the park displayed a marked pattern of habitat preference and favoured flood zone and

I. INTRODUCTION

grassland habitats over scrub jungles and semi-evergreen forests. Elephants did not appear to display a significant differential frequency in the utilization of the various habitat types.

Female buffalo in the park outnumbered males by 3.3 to 1. Ratios of the age classes of the buffalo population were as follows - Adults:Sub-adults 2.8:1, Sub-adults:Juveniles 1.7:1, and Juveniles:Calves 2.4:1.

Over 500 families of permanent residents live in the Uda Walawe Park. There is also an influx of seasonal migrants (human) who utilize the exposed tank bed for cultivation, during the dry season. Permanent settlers are concentrated in the Galpaya and Panahadu regions.