

---

## 10. WILDLIFE AND LIVESTOCK POPULATION TRENDS IN THE KENYA RANGELAND

**WILBER K. OTTICHILO**

*Kenya Wildlife Service (KWS), P O Box 40241, NAIROBI, Kenya*

**JESSE GRUNBLATT, MOHAMMED Y. SAID and PATRICK W. WARGUTE**

*Department of Resource Surveys, and Remote Sensing (DRSRS), P O Box 47146, NAIROBI, Kenya*

**Key Words:** wildlife, conservation, livestock, populations trends, rangelands, aerial surveys, Systematic Reconnaissance Flight (SRF) Methodology, changing land use patterns, poaching, wildlife decline, policy reform

### **SUMMARY**

The rangelands of Kenya are home to over 25% of the human population and are critically important for livestock production and wildlife conservation. Aerial surveys of wildlife and livestock populations in the rangelands have been conducted since 1977 and these data were analysed to determine population trends for the 1970s (1977–81), the 1980s (1985–88) and the 1990s (1992–94). Cattle populations remained static throughout, although the numbers fluctuated at district level. Sheep, goat and donkey numbers declined (10–14%) and camels increased (12%). All wildlife species except wildebeest and ostrich declined significantly. The highest wildlife densities were in protected areas but over 70% of wildlife was found outside these areas. The main contributors to the decline in wildlife were poaching and land use change. In the 1970s and 1980s, poaching was driven by the high international prices for trophies, particularly rhinoceros horn and elephant tusks, and the failure of the Wildlife Department to control it. This led to the total ban on trade in all forms of trophies and uses by the Government in 1977. New land tenure legislation creating group ranches and assigning land rights and ownership to pastoral communities was introduced in the early 1970s in response to growing human and livestock populations. This resulted in the exclusion of wildlife from large areas of

land to minimize wildlife livestock competition and to protect and promote the expansion of arable agriculture. The severe droughts in 1984 and 1990 exacerbated the decline. New policies on wildlife management, strengthening of the Kenya Wildlife Service, expansion of community based wildlife programmes, re-introduction of use rights and the development of a comprehensive national land use policy are seen as the ways forward in halting the decline in wildlife in the rangelands and in fostering its conservation through utilization.

## INTRODUCTION

This chapter provides a brief description of the Kenya rangelands and their importance in livestock production and wildlife conservation. The need to monitor livestock and wildlife population trends and distributions is highlighted and a method used in Kenya to carry out this task is described briefly. Kenyan rangeland wildlife and livestock population trends between the 1970s and the 1990s are presented as well as population estimates of wildlife in the protected and non-protected areas. Information on wildlife/livestock population trends and distribution is taken from the Department of Resource Surveys and Remote Sensing (DRSRS) technical publications (Grunblatt et al., 1995a and b, 1996). Finally, a discussion on factors responsible for the observed animal population trends is presented and consideration for the way forward given.

## THE KENYA RANGELANDS

Kenya covers an area of approximately 587,900 km<sup>2</sup> of which 576,700 km<sup>2</sup> is land surface while the rest is inland waters covering 11,200 km<sup>2</sup> (GOK, 1994). Based on vegetation cover characteristics, the amount and reliability of rainfall, and land ecological potential, Kenya is divided into seven eco-climatic zones (Pratt and Gwynne, 1977). The land is further classified into two major agricultural classes based on rainfall received and rates of evapotranspiration. These are high medium potential and low potential. The high to medium potential and low-potential boundary is defined by eco-climatic zone IV (Pratt and Gwynne, 1977). Thus the high to medium potential class encompasses eco-climatic zones, I, II and III or the humid to sub-humid areas of the country which receive annual rainfall of over 800 mm. These areas constitute about 20 per cent of the total land area of the country. The low potential areas which encompass eco-climatic zones IV, V, VI, VII and constitute what is popularly known as arid and semi-arid lands (ASALs) of Kenya, or the Kenya rangelands cover about 80 per cent of the total land surface in Kenya (Figure 1).

The Kenya rangelands carry over 25 percent of the total human population [projected at 29 million in 1997 (GOK, 1996)] and are important in the Kenyan economy in terms of livestock production and wildlife conservation. Slightly more than half of the livestock population in Kenya is found in the rangelands (GOK, 1994). The livestock production in these areas is mainly for beef and is largely based