

# AMBOSELI ECOSYSTEM OUTLOOK

# **Current situation report**

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#### **Preamble**

The heavy prolonged El Niño rains boosted pastures across the Amboseli ecosystem to peak growth in May, with the exception of slightly weaker rains on Mbirikani. The rich pastures fully restored the loss of body condition livestock and wildlife suffered in the 2022-2023 drought. Milk yields also recovered from the year-long delay caused by the drought. Market prices for livestock hit an all-time high due to cattle shortages, rising national beef demand, pastoralists rebuilding their herds, and inflation.



Figure 1: NDVI satellite image for October 2024, showing remaining green patches in Olgulului and Eselenkei and dry conditions across Mbirikani and Kuku-Rombo.

#### Long-term pasture levels

The long-term Amboseli Pasture Barometer shows a decline in pasture biomass as the dry season continued into October, with the amber zone signifying average conditions. The anticipated short rains will shift pasture conditions back into the green zone. The recovery will raise livestock sale prices due to the end-of-year festivities. Grazing pressure in the basin will fall as wildlife disperses to the wet season pastures.



Figure 2: The pasture barometer shows a decline in pasture biomass as the dry season progressed into October. Although growth peaked in May, the late season grazing areas have abundant pasture due to the low grazing pressure following the loss of wildlife and livestock in the 2023 drought.

## Amboseli ecosystem outlook

# Grazing pressure gauge



Figure 3: Grazing pressure across the Amboseli ecosystem group ranches and the Amboseli Basin area through January to October 2024. Grazing pressure is high on Kimana due to subdivision and sedentarization, and Mbirikani and Amboseli due to poorer rains than on other group ranches. Eselenkei received better rains.



Figure 4: A vegetation plot monitored in Amboseli showing the rich dry season pasture produced by the El Nino rains.



## Milk yields, body condition scores and market prices

Figure 5: Livestock body condition scores for October 2024 show early signs of stress as grazing pressure increases. Milk yields are expected to improve with the arrival of the anticipated short rains.



Figure 6: Livestock market prices remain high in October due to the shortage of livestock and a focus on pastoralists rebuilding their herds after the drought.



Figure 7: The price of livestock rose far higher after the recent drought than after the 2009 drought due in part to inflation and the growing national demand for beef.



Figure 8: Wildlife body condition scores for October 2024 had fully recovered from the 2022-2023 drought to levels reached in the good rainfall years of 2018-2020.

## The outlook

The heavy and prolonged El Niño rains boosted pastures across the Amboseli ecosystem to peak growth in May, except for poorer rains on Mbirikani. The rich pastures fully restored the depleted body conditions of livestock and wildlife suffered in the 2022-2023 drought. Milk yields also recovered from the year-long delay caused by the drought. Market prices for livestock hit an all-time high due to cattle shortages, rising national beef demand, pastoralists rebuilding their herds, and inflation.

The post-drought recovery captured in all our key rangelands indicators, coupled with the surplus pastures left by the prolonged rains, spells good outlook for Amboseli through the end of the year.

Less clear is the outlook for the short rains at the end of 2024. Originally projected by the Met Department to be poor due to the El Niño cool phase typically following in the La Niña cooling phase, the forecasts are now less clear. Warming seas and atmospheric temperatures are changing climatic patterns globally, creating greater weather extremes which complicate weather forecasts.

The unpredictable weather patterns make it all the more important to assess the outlook for Amboseli based on actual conditions. We shall present another outlook report at the beginning of the dry season in January, once we measure pasture abundance, grazing pressure and animal body condition. This will give us the basis for projecting the outlook through the dry season and into the long rains.

### References

## https://amboseliprogram.org/