Status of the Amboseli ecosystem and southern Kenya as the rains arrive

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Introduction

The short rains, perhaps heralding a wet El Niño, started in the Amboseli area in early November. By the time David Western and David Maitumo did an aerial count on 15th November the grass had greened up everywhere except Osilalei directly to the north.

Lake Amboseli had begun to flood, and much of the Amboseli Basin was fully saturated with rainwater. The wildebeest and zebra herds had moved out on migration and elephant numbers dropped from 430 in October to 250. On the other hand, cattle numbers remained high, with 2,000 in the park despite the good rains. Several herds had moved into prime wildlife viewing areas in the center of the park.

Conditions in the Amboseli ecosystem

The poor short rains of April and May did break the drought cycle which began in early 2022 sufficient to see a recovery of livestock and wildlife. Persistent heavy grazing soon pushed pasture condition back into the red zone (Figure 1). The current good rains starting in November and projected to continue into 2024 will provide sufficient pasture for wildlife and livestock herds to begin to recover from the drought.
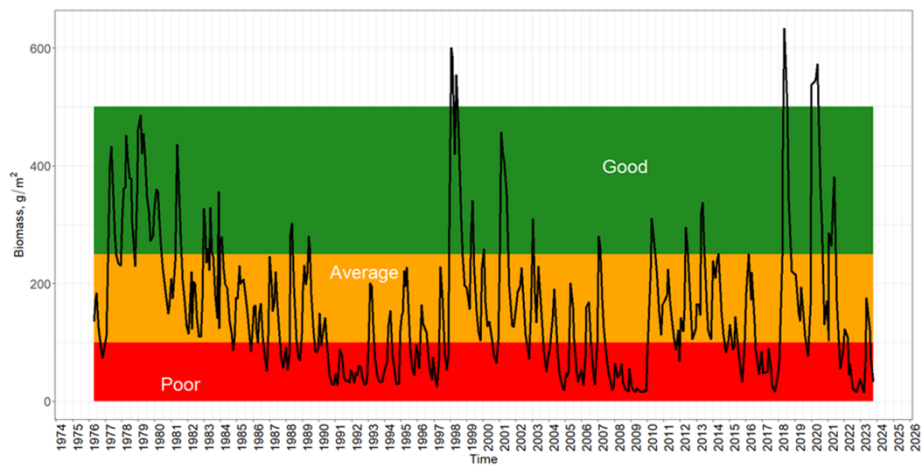
Figure 1: ACP's long-term pasture barometer which dropped back into the red zone after the poor rains of April and May will quickly bounce back into the green zone with the present heavy November rains projected to continue through the end of the year.
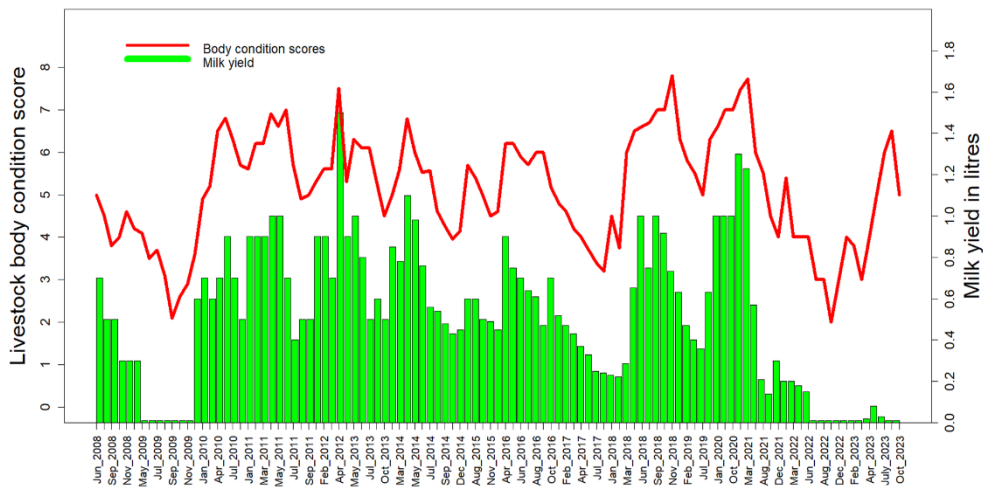
Figure 2: Cattle body condition rebounded with the rains in April and May, then began to decline with persistent heavy grazing and an influx of cattle from Kuku and Rombo, which had poor rains. Milk yields remain low due to poor condition of cattle and time to reproductive recovery. Significant improvement in milk production is unlikely until late 2023 or early 2024.
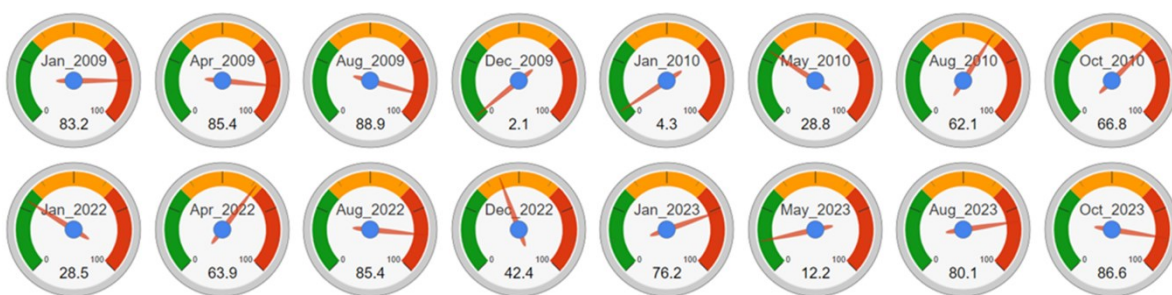
Figure 3: Grazing pressure in the 2022-2023 drought started lower than in the 2009 drought. Pastures conserved by the grazing committees would have been sufficient to prevent severe livestock losses. The influx of 140,000 cattle into Amboseli heightened the severity of the drought, resulting in a 40 percent loss of livestock and slower post-drought pasture recovery than 2009.
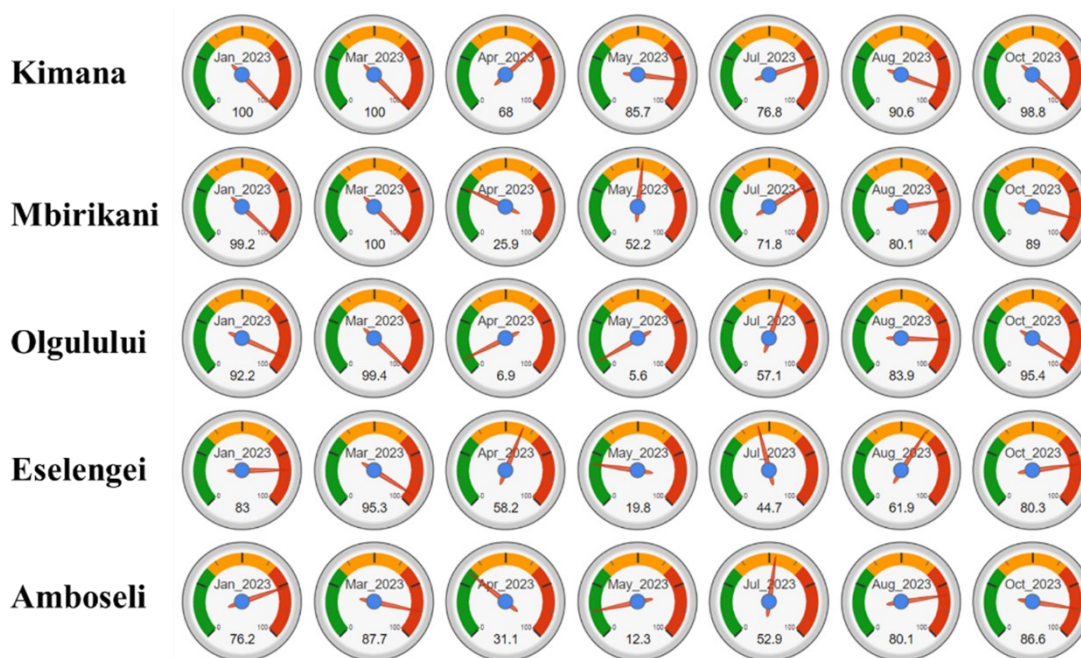
Figure 4: The grazing pressure for each group ranch shows subdivided Kimana to have experienced earlier and more severe grazing than Amboseli National Park and other ranches. The pressure switched to Mbirikani, which had the best long rains, and later to the national park. Eselengei, which had reasonable long rains and few cattle incursions, experienced the lowest grazing pressure.

Figure 5: Livestock market prices bounced back after the long rains in April and May due to the recovery of body condition and high market demands in the last quarter of the year. The market demand was due to herders hanging on to animals to rebuild their herds rather than selling.
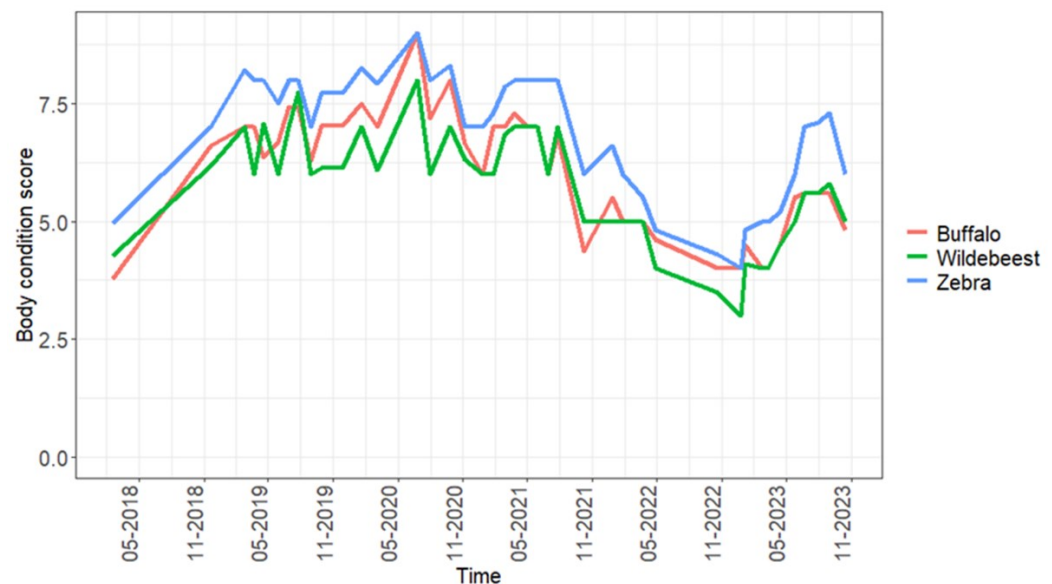
Figure 6: Body condition of buffaloes, wildebeest and zebras began to recover after the long rains in April and May but worsening again with the continued heavy grazing pressure in the ensuing dry season. The herds migrated out of Amboseli with the heavy November rains and will recover quickly on the wet season pasture.

The outlook after the drought

The impact of the 2022-2023 drought is covered in regular ACP counts and status reports beginning in January 2022, a post-drought August 2023 Department of Remote Sensing and Resource Surveys (DRSRS) census of wildlife and livestock numbers (Western & Mose, 2023), the post-drought report on herder perspectives (Kimiti, et al., 2023), and an economic viability and cultural analysis of the drought (Kimiti S. K., 2023).

The current outlook with the onset of the heavy short rains gives wildlife and livestock in the Amboseli ecosystem and across the southern rangelands a chance for recovery in the coming year or two. Body condition of livestock and wildlife should fully recover in the next few weeks, and milk yields should pick up in the next two months with the delayed post-drought cattle calving. The failed wildebeest calving of February-March will likely resume within the next two months too.

Finally, there should be a strong boost in pasture production in the coming weeks, especially if the short rains auger strong El Niño season.

The relief from the drought should not, however, invite a return to the normal poor anticipation, preparation and management of the 2009 drought which saw between two-thirds and three quarters of livestock and wildlife perish. The drought incurred huge economic losses and social dislocation. The lessons herders learned from the ACP's early warning of the 2022-2023 drought, and the coping mechanism many herders adopted to combat losses, should be incorporated into community, county and government strategies for drought mitigation.

The increasing intensity, frequency and extremes of pasture production due to heavy grazing anticipate the threats posed by climate change. The lessons and coping mechanism learned from the 2022-2023 drought should therefore be seen as preparation for climate-change mitigation too.

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