

### Factsheet #08

# Improving rangeland management in Eastern Namibian Communal Areas



Towards implementing a Split-Ranch grazing system

## Challenges

- NamTip research found that the communal rangelands have a much higher tree and shrub cover and lower cover of grasses and forbs (herbaceous plants) than the freehold farms, i.e., they are more degraded.
- Soil seed banks in the communal areas contained fewer grass seeds than the freehold areas, in addition soil organic carbon stocks in the first 20 cm of the soil was almost half (7.5 vs. 9.5 Mg per ha in intercanopy habitats) than as measured in the freehold farms (Zimmer et. al., 2024).
- One way to restore rangeland in the communal areas is to implement planned grazing (Fig. 1), which allows provision for long resting periods and timely adjustment of animal numbers to forage resources.
- In most communal areas there are no fences (further away from settlements), and it is challenging to apply sufficient rest to rangelands.



## What is the Split-Ranch system?

- Planned grazing in the form of a Split-Ranch system is an opportunity to promote rangeland rest by restricting animals on one half of the available rangeland area or farm for an entire season.
- An advantage of the split-ranch system is that the half that is grazed is kept short and productive, with high quality grazing that will enhance livestock production. The other half is then given a whole calendar year's rest to recover from grazing, to accumulate as much forage as possible for the next season and allow for maximum root growth and replenishment of reserves.
- It also reduces the risks of running into forage shortages because a large part of the total grazing area would have rested for a full year with sufficient accumulated forage for the dry season, provided that stocking rates are in line with available forage.



# Implementing Split-Ranch in three villages of the Waterberg Region



Fig. 2. Possible grazing plan for Ovitatu, Okomumbonde and Ozongarangombe. (Map: Drawn on Google Earth)

#### Ovitatu

A gravel road runs from the east up to the village and then in a northerly direction, naturally dividing the area into two nearly equal sized grazing areas. There is only one borehole in the village. A split ranch system could be implemented where the one grazing area is grazed for a full year while the other grazing area gets a full year rest. In August/September the livestock could move from the one unit to the other.

#### Okomumbonde

The grazing area is split in two by the road running from east to west through the village. The bottom grazing area is approximately 3 760 ha, while the northern one is 8 000 ha. A starting point would be to rest the bottom unit for as long as possible, while grazing is concentrated in upper unit, switching takes place in September/October. As a next phase the possibility of extending a pipeline in a northerly direction should be investigated to allow for more even and flexible grazing.

#### Ozongarangombe

The total grazing area has four water points, well distributed over the whole area, varying from 5 600 ha in the south, to a northern grazing area currently 20 800 ha. It is therefore recommended that, over the long run, the area north of the road be divided in three grazing areas, as indicated in Fig. 2.

### The NamTip Project

The collaborative German-Namibian research project "NamTip -A Namibian Perspective on Desertification Tipping Points in the Face of Climate Change" aims to better understand the development of ecological tipping points in dryland rangelands by assessing desertification and woody plant encroachment processes. It also explores management options for preventing such tipping points and restoring degraded rangeland ecosystems.

#### www.uni-potsdam.de/en/namtip

# Practical and Policy Implications

- Planned grazing is possible in open communal areas where no camps exist.
- The Split-Ranch system provides such an opportunity because it is simple, relative cheap and easy to implement.
- The successful implementation of planned grazing is highly dependent on the ability of the community to work together.
- It is important that planned grazing is planned and • developed with the community and not "parachuted" in from outside by experts.
- Proper incentives such as better prices for livestock and others need to be introduced to those communities that are willing to implement planned grazing.
- Governments and development actors should prioritize planned grazing in communal areas, as time is of the essence, and reversing ongoing degradation is becoming increasingly difficult.
- Legal provision is needed to provide for group rights for livestock farming in the rangelands to implement and sustain planned grazing.

#### References

Kruger, B. & van der Waal, C. (2023). Rangeland Management and Monitoring in the Eastern Communal Lands of Namibia - A Training Booklet.

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