Context

- Pastoral communities in Northern and Sub-Saharan Africa operate in harsh environments where water is scarce. Large areas of land suffer from degradation, mainly caused by overgrazing combined with erratic droughts.
- Overgrazing under the condition of climatic uncertainties reduces the productivity of the ecosystem, the nutritional value, and the relative abundance of plant species.
- Rangeland restoration efforts that consist of seeding non-native grasses and introducing ecologically demanding (i.e. water) exotic shrubs have often failed.
- The reintroduction of well-adapted native species, mainly grasses, is proven to be more affordable.

Buffel grass: a resilient forage species

- **Buffel grass** (*Cenchrus ciliaris* L.) grows rapidly under warm, moist conditions and can withstand heavy grazing and drought.
- Buffel grass is a highly palatable and nutrient/energy-dense forage for all types of livestock.
- It produces viable seeds favoring auto-regeneration and pastures may not need to be reseeded.

Buffel grass nutritive value

Chemical composition	%DM
Crude protein	9.6
Neutral detergent fiber	70.1
Acid detergent fiber	38.6
Acid detergent N insoluble	0.1
Ash	10.0

Photo credit: A. Ouled Belgacem/ICARDA

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Enhancing rangeland productivity and increasing carrying capacity with buffel grass (*Cenchrus ciliaris* L.), a resilient and drought-tolerant species

- Buffel grass is a drought-tolerant species able to survive in areas with annual rainfall less than 150mm.
- Buffel grass is a native range species with high nutritive value and palatability.
- Buffel grass is easy to propagate. It can be established by direct seeding, seedlings, or by cuttings.

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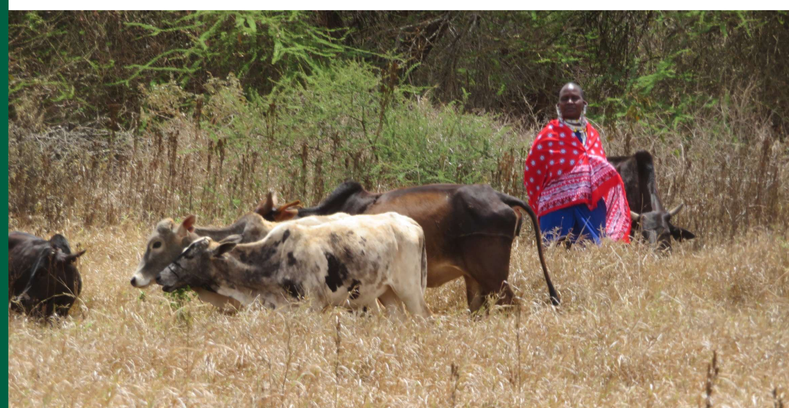
Progress/outcomes

- Planted by cuttings, the buffel grass plants have been well established. This may overcome the problem of seed availability.
- Simulated light grazing, 4-6 months after sowing, ensured good establishment of the seedlings.
- Frequent cuttings, every 40 days, have improved forage yield and nutritional value.

Next steps

- Promote the utilization of buffel grass as a sustainable source of energy forage, in complement with perennial legumes as a protein source, within rangeland rehabilitation initiatives.
- Train stakeholders in Northern African countries on how to facilitate the introduction of buffel grass, offering guidance on improved pasture management.



Livestock grazing an improved rangeland using buffel grass in Tanzania.
Photo credit: Mounir Louhaichi/ICARDA

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