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Scenarios for climate smart livestock systems in drylands

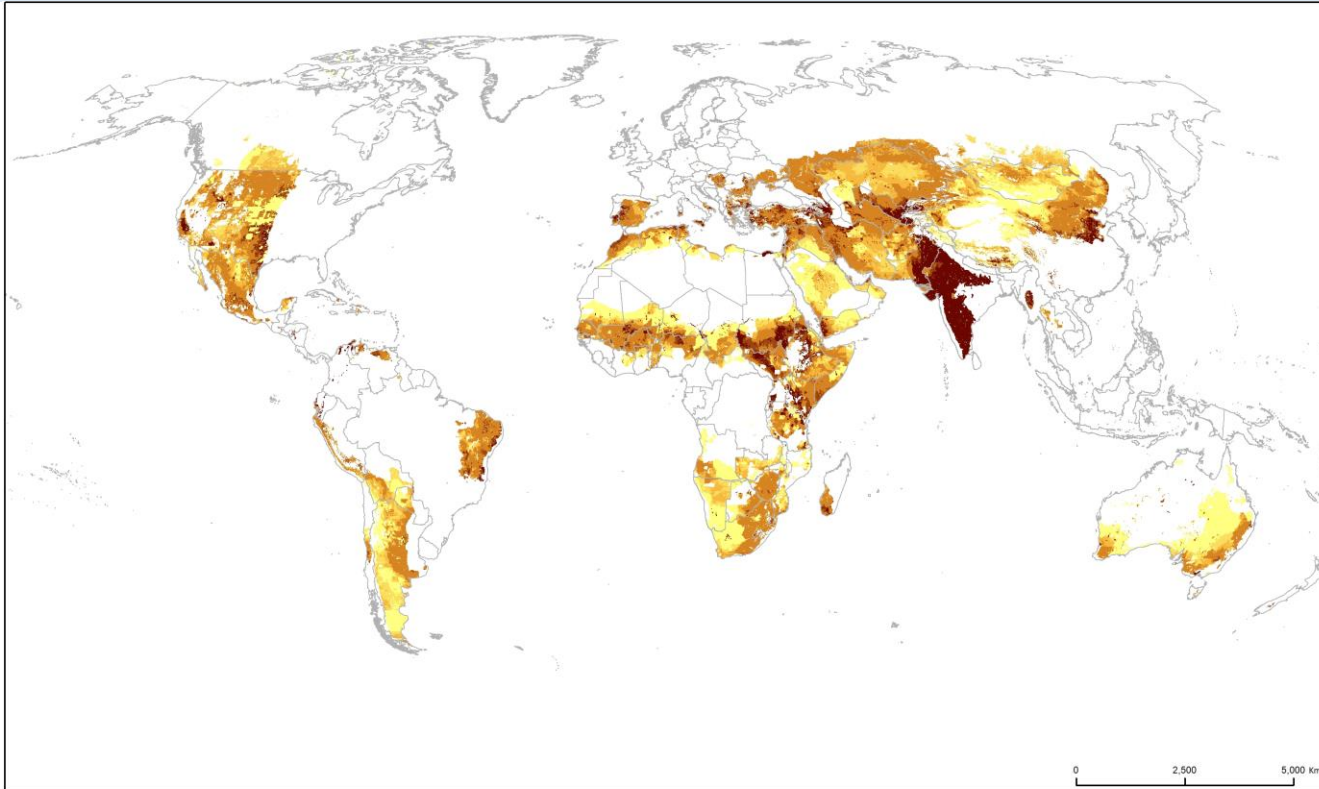
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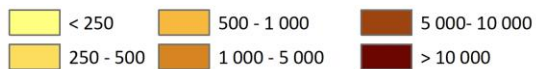


Livestock systems in drylands

- Drylands are areas with a length of growing period (LGP) of 1–179 days: arid, semi-arid and dry sub humid regions .
- Variability of seasons, biomass availability
- High water stress index
- Land degradation
- Mobility of animals
- Animal diseases



Total GHG emissions from ruminants in drylands regions
(tonnes per year, 2010)



Source: GLEAM (<http://www.fao.org/gleam/en/>)

Livestock systems in drylands contribute to climate change

- Ruminants (Cattle, Sheep, Goat, and Buffalos) are the main species found
- E.g. emission intensities:
 - Grazing beef cattle: 42 kg CO₂eq/kg CW
 - Mixed beef cattle: 46 kg CO₂eq/kg CW
 - Grazing dairy cattle: 3.3 kg CO₂eq/kg FPCM
- 50% of emissions are in form of enteric CH₄



Livestock production in drylands needs to adapt to the effects of climate change

- Altering the exposure through change and management of drylands and rangelands
- Reducing sensitivity by keeping disease-resistant animals
- Increasing the adaptive capacity through the access to capital insurance and financial loans
- Managing risks from socio-economic factors





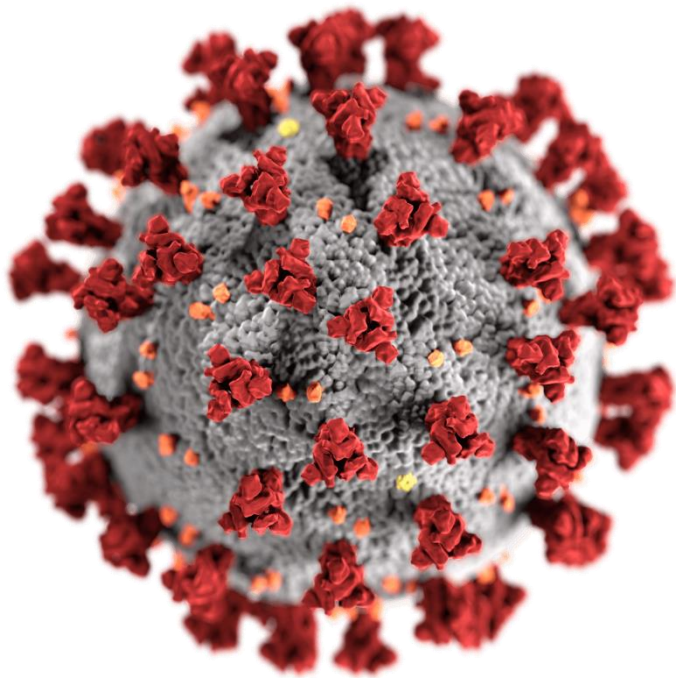
Practical actions

- Climate smart livestock systems
- Feed and water management
- Rotation grazing and storage of feed to be used across seasons
- Offset of GHG emissions through land restoration and enhancement of soil carbon storage
- Management of heat stress and droughts (destocking)



Enabling policies

- Regional policy to support cross-border mobility
- Producer support programs to boost market competitiveness and risk mitigation schemes
- Certification schemes for “climate smart” livestock products.
- Land governance
- Pull incentives: to generate market demand in support of shifts towards best practices



Livestock sector in drylands has been disrupted by COVID-19

- Cross-border mobility restrictions
- Over-grazing on land with scarce resources
- Increasing conflicts between crop and pastoralists
- Fluctuations of prices
- Directly affecting the livelihoods of farmers



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Thank you