



# A Methodology to Assess and Monitor Rangeland and Grassland Health

Rangelands refer to land on which the vegetation is predominantly grasses, grass-like plants, forbs or shrubs and is managed as a natural ecosystem. Rangelands can include annual and perennial grasslands, shrub and dry woodlands, savannah, tundra, and desert. Grasslands on the other hand are lands on which the vegetation is dominated by grasses. Rangelands and Grasslands provide many ecosystem services of vital importance for local communities, including climate regulation. They are a significant source of livestock feed and of livelihoods for stock raisers and herders. Most of grasslands are catchment areas and their sustainable management is crucial to ensure the maintenance of hydrological cycle and the protection of watersheds. Rangelands and grasslands are major biodiversity reserves and provide important wildlife habitats and in-situ conservation of genetic resources.

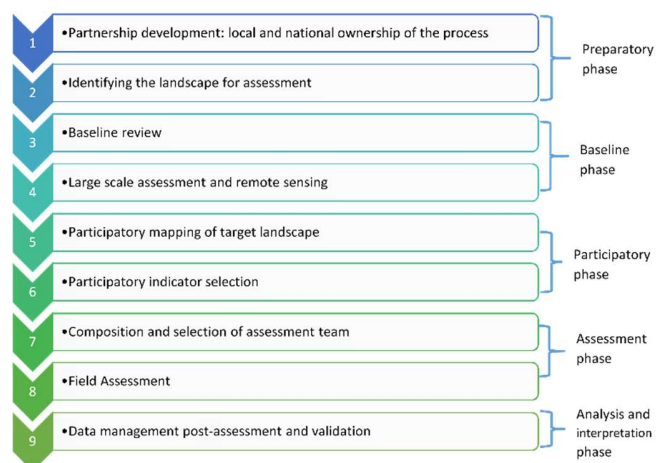


Multiple systems have been developed in the past to monitor and assess the health of grassland and rangelands. However, despite the high importance placed on evaluating the drivers, current state, trends and impacts of land degradation, there is yet to be a global standard protocol defined for monitoring and assessing land degradation in grasslands and rangelands to upscale Sustainable Land Management (SLM). Existing tools do not deal in particular with the link between pastoralism and land degradation in grasslands and rangelands, and no global participatory and holistic method and process is available yet to monitor land degradation and SLM practices and related benefits to make informed decisions.

The participatory rangeland and grassland assessment and monitoring methodology (PRAGA) is designed to assess rangeland health at scale but with enough flexibility to adapt to specific context and country. The scale of

assessment is determined by a combination of administrative (e.g. boundaries) and ecological factors (bioclimatic zones, landscape level variability, site variability). The scale of assessment therefore also guide decision making, and we should consider the scale at which relevant decisions are made.

## Steps of the Assessment and Monitoring Methodology



The methodology is implemented according to the local land users' management objectives, against which rangeland health will be assessed, and based on a combination of scientific and local knowledge. There may be competing management objectives. Hence the participants need to agree on objectives and the indicator selection process (supported by a limited number of core representative indicators), based on participatory maps; this will help define and agree on the management objectives.

The methodology considers both scientific and local knowledge. The role of local knowledge is critical in informing indicator selection and improving the quality of assessments. Participation of relevant stakeholders is essential particularly in the first steps for defining management objectives and determining indicators of assessment, and later for evaluating the findings. Participation is essential to build trust with the land managers (landowners and land users), to draw on local knowledge, to help negotiate the incorporation of science and local knowledge in the methodology, and to contribute more generally to empowerment of rangeland managers.





The methodology helps address how biotic (vegetation, soil, livestock) and abiotic factors (rainfall) interact to determine rangeland health and rangeland dynamics. It contains background information on the global grasslands and rangelands, the need and the guiding principle for rangeland assessments and provides practical guidance on how to conduct cost-effective assessment.

The methodology links with existing management and decision-making frameworks and timeframes to be able to inform decision making and planning at different levels, and should be institutionalized in policies. Information generated from the methodology guides and improves targeted investment and planning.

Useful links:

- ❖ [www.iucn.org/drylands](http://www.iucn.org/drylands)
- ❖ <https://pragaproject.org>
- ❖ [Global Drylands Initiative](#)
- ❖ [Participatory Assessment of Land Degradation and Sustainable Land Management](#)
- ❖ [Praga Brochure](#)

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