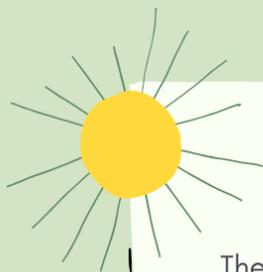


Multi-use Landscapes



A look into the importance of grasslands and how they can be shared.



Why are They Important?

There are a variety of types of grasslands around the world from prairies to steppes to savannas. They all have large open areas where grass is the dominant vegetation, and the total rainfall is low compared to temperate and forest ecosystems. Grasslands make up between 20–40% of Earth's land area and have many ecological, social, and cultural uses. These include ranching, farming, recreation, conservation, renewable energy, and wildlife habitat.

Nutrients Abound

Grasslands are commonly used for ranching and conservation areas where they provide forage for livestock and wildlife. While different types of grasses vary in nutritive value, generally younger grass has higher quality. Nutritive quality is measured primarily through ratios of crude protein, acid detergent fiber, and neutral detergent fiber.

Considering they provide the primary food source for livestock around the world, grasslands are significant to issues of food security, rural community livelihoods, and the livestock industry.

Conservation Opportunities

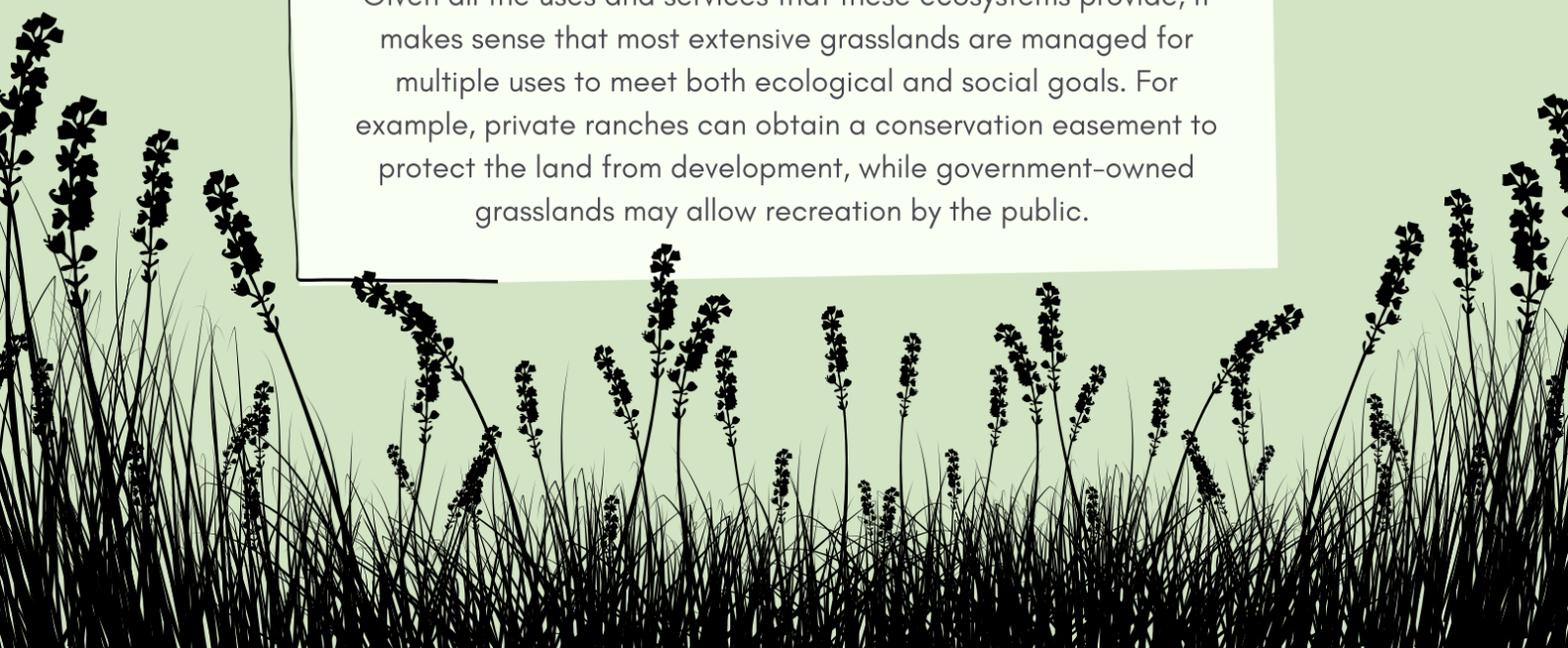
Grassland ecosystems are rich in plant and animal biodiversity. This gives reason for conservation groups to be interested in protecting them as quality habitats, along with the fact that they have been lost rapidly to residential development over the past few decades. Moreover, they offer ecosystem services as carbon sinks that aid in topsoil erosion and climate mitigation.

Direct Uses

While supplying provisional ecosystem services like food production and regulatory services like air purification, grasslands also contribute directly to humans for recreation and renewable energy. Recreational opportunities may include hiking, biking, or bird watching. As for renewable energy, grasslands support agricultural fields for plant-based biofuels and provide wide open space for wind power. These biofuels, which are renewable fuels made from plants, are mostly used for vehicle transportation and when burned release less greenhouse gasses.

Social-Ecological Systems

Given all the uses and services that these ecosystems provide, it makes sense that most extensive grasslands are managed for multiple uses to meet both ecological and social goals. For example, private ranches can obtain a conservation easement to protect the land from development, while government-owned grasslands may allow recreation by the public.





A Study on Grassland Health and Grazing

I learned about the role of grasslands in society and for wildlife by working with Anna Clare Monlezun, a Ph.D. student that started a study centered on grasslands in Colorado. Her original aim was to look at the possibility of grazing management on multi-use lands contributing to conservation goals and sustainable beef production. With her help, I found out about multi-use landscapes and came up with a research question about whether cattle grazing affects forage quality.

