## **Seas of Grass**



## Introduction

Discover the world's grasslands, natural vegetation of nearly one-third of Earth's land surface, some of which are in grave danger. Locations: Kenya, South Africa, Argentina, China and the United States.

"Seas of Grass" focuses on the current state of grasslands, which are the natural vegetation of nearly onethird of the world's land surface. During the course of this episode we will visit the pampas in Argentina, the steppes of Mongolia, the savannas of Kenya, the high veldt of South Africa and the prairies of North America. Biological diversity, coupled with climate and landscape, forms a unique ecosystem. But when people are added to the equation major problems like environmental degradation and ecological fragmentation often occur. Without sound management there could be a global reduction of biological diversity and the loss of one of Earth's most important and productive ecosystems.

Our journey begins in the autonomous region of Inner Mongolia — along the wind-swept steppes of northeastern China. Nomadic herders graze their flocks in a location as long as there is enough grass. When the pastures have been exhausted the family will move on — about four or five times during the summer. Without fences, the grasslands are a shared commons — and like pastoralists all over the world, these herders depend on the grazing patterns of their neighbor's animals to keep the ecosystem healthy. But recently, a treasured way of life is being threatened — and it's coming from increased consumer demands of markets for meat far from the grasslands of Inner Mongolia.

If the situation of the Mongolian steppes is serious, in areas of the East African savanna, it is catastrophic. In a savanna trees and grasses coexist, but that difference hasn't helped save the Kenya grasslands from turning to dust. Recent economic pressures have forced people to turn grazing land into agricultural land, making the once shining expanse of savanna stretching to the horizon into a sterile sea of dirt. Nearby Lake Baringo is a faithful barometer of the degradation of the surrounding savanna. Agriculture and overgrazing in the hills around Baringo have led to massive soil erosion. Irrigation for crops has siphoned water out of the river system and overgrazing has stripped the land of grass. But new techniques are allowing small farmers to keep flocks and manage their land without overgrazing or eroding it. The restoration of the grasslands has brought hope to a situation that once seemed desperate.

In South Africa are some of the most ancient grasslands on the planet, so old that they existed even before the earth's original landmass broke up into the different continents some 100 million years ago. Cattle and sheep thrive in this cool upland environment — but the threat to the grasslands here comes not from ranching, but from tree plantations. Non-native firs, spruce and eucalyptus trees are drying out the grassland. These trees grow easily on the veldt and if allowed to spread convert it to woodland. Naturally occurring fires used to control the spread of trees. Huge tree plantations, created to feed South Africa's growing lumber industry, are destroying one of the last pristine grasslands in the world. Sadly, as in Mongolia and Kenya, South Africa's beautiful grasslands ecosystems are subject to the pressures of economic development.

Home to the legendary Gaucho, the Pampas of Argentina have been celebrated in so many poems and songs they have come to symbolize the soul of the country itself. Ranching on the pampas has always been the mainstay of the Argentinean economy. Today, cattle ranching has become big business, and so too has agriculture — the biggest threat to the Pampa. Lured by the rich, fertile soils of the Pampa, farmers are planting ever-larger areas with crops. Today about 30% of the old Pampa has been turned over to intensive agriculture. Once this is done, the original grasslands can never be restored. Far to the South, at the very tip of the continent, the situation is much more serious. This is Patagonia, home to 8 million sheep pastured on the remaining grasslands. Overgrazing and wind erosion are turning Patagonia into a desert. An astonishing 80% of the land here has become barren sand dunes. The fate of Patagonia is all too typical of the state of the world's grasslands.

Closer to home, 400 million acres of North America, from the Rockies to the Mississippi, and from Saskatchewan to Texas, was once an unbroken sea of grass. Today it is almost all gone. To the first settlers, the short grass prairies of the Southwest seemed heaven sent for ranching — soon millions of cattle were roaming this range. A hundred and fifty years later, overgrazing and poor ranching methods have taken their toll. For many ranchers it has proved too much and they have given up. But the cowboy way of life is far from dead. The future of these prairies may well be in the hands of a new breed of cowboy who is also a conservationist. In landmark cooperation between environmentalists and working ranchers, the Gray Ranch in New Mexico was established on land given to it by the Nature Conservancy. It has become a laboratory for new methods of sustainable ranching.

From the steppes of Mongolia to the savannas of Africa and the great prairies of the Americas we have seen the same dynamics in play. Grasslands are shrinking everywhere, but there are people who have learned to pay heed to the needs of this unique ecosystem. If their voices are heard, the world's grasslands may still have a future.

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