



Journey to Planet Earth

**Transcript for Episode 05:
Seas of Grass**

Abridged Version

Journey to Planet Earth is produced by

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(Matt Damon On-Camera)

Hi, I'm Matt Damon and welcome to *Journey To Planet Earth*. In this episode we investigate serious threats to one of our most treasured natural resources. Today, grasslands are home to nearly a billion people – it's a refuge for thousands of species of plants and animals -- and a sanctuary for endangered and rapidly vanishing cultures. But our program is also an exciting journey filled with unexpected twists and turns. So please join me now -- as our story begins.

(Opening Montage)

Once -- not very long ago -- endless expanses of grasslands covered the earth. This was home to great herds of wild animals. Known by names such as prairie, veld, steppe, pampas, and savanna, over the years these grasslands became a shared commons -- for both animals and man. Though separated by distance and culture, today these seas of grass all share a similar and uncertain future -- they are under attack by a variety of environmental pressures that threaten their very existence.

(Earth From Space)

When viewed from above, we can clearly see why we should care about these extraordinary oceans of green. Home to over 800 million people, grasslands cover more than 30% of our planet's landmass.

(Inner Mongolia)

We begin our journey here -- along the wind-swept prairies of northeastern China -- in the autonomous region of Inner Mongolia.

Here on the steppes of Asia, the summers are hot and often without rain -- the winters are long and cold. These are the ideal conditions for sustaining one of the largest grassland ecosystems in the world. Less rain and there would be desert -- more and there would be forest.

(Ghost town)

By early June, the winter settlement of Hoobai is nearly deserted. Its residents have moved onto the grasslands.

(Herding)

The herders will stay in a location as long as there is enough grass and water. When the pastures and ponds have been exhausted -- families will move on -- about four or five times during the summer. It has always been this way. But recently, a cherished way of life is in jeopardy -- and the threat is coming from places far from the grasslands of Inner Mongolia.

(Shanghai)

Shanghai is the perfect example of the new China. Today many of its 15 million residents enjoy a new found wealth and China has become a country of consumers. Food markets overflow with fresh produce and once unimaginable luxuries like milk, eggs, and meat.

In fact, China accounts for a quarter of the world's consumption of meat.

(Cattle Grazing)

To exploit the growing demand for meat -- herders have increased their cattle, sheep and goats -- from 100 million head to over 400 million. However, there's not nearly enough pasture to support the increase in livestock -- and extreme over grazing has created a crisis.

Cattle are suffering -- and without the protective cover of grass -- nearly 73 million acres are in danger of turning into wasteland. In the spring -- seasonal winds often spawn massive sandstorms.

Though controlling grassland degradation is difficult -- there are ways to ease the problem.

(Grassland Family)

Hooya has always lived on the grasslands. She and her husband Sah-Hem, are from a long line of herders. They own 250 sheep, worth about \$15,000.

In a nearby pasture their son is rounding up half the family's flock. They will be sold at the local market. Because of a recent drought, there won't be enough hay to last the winter. Though the family will lose money on the transaction, in a sense it could be a blessing in disguise. By reducing the number of sheep -- their over-grazed pastures may have a chance to regenerate.

(Preparing meal)

But today, Sah-Hem is coping with a more personal problem. He is preparing a special farewell dinner to honor his daughter. She has recently decided to seek work in a distant city.

Daniel Miller

This is a dilemma for the Mongolians, because on one hand they want to try to maintain some of their traditional culture, but yet they are lured to the cities and the better life that that has. But you lose the indigenous knowledge that the herders have about the weather, about the ecology of the grasslands and about their animals. So how they balance this is something that each individual family is struggling with.

Shuju's farewell dinner is clearly not a happy occasion. It's particularly difficult for a family that has always treasured the traditions of their nomadic heritage. Though most will agree that economic prosperity will make the lives of future generations easier -- clearly over-grazing and the loss of culture are taking a toll. It's a problem challenging people.

(Lake Baringo)

Lake Baringo -- a treasure of biodiversity in the middle of Kenya's Great Rift Valley. This is a refuge to hundreds of species of birds -- a habitat for more than 20,000 migrating waterfowl each year. Yet its scenic beauty belies a harsh reality. Lake Baringo is dying -- it's literally drying up.

Murray Roberts

I was born and raised here in Lake Baringo, and the area that we're now standing on used to at one time be lake. In fact, there would have been about seven or eight feet of water here. The lake is receiving about 4 million cubic meters of silt every year. And as the years goes by, the lake goes further and further down, and the bottom of the lake comes further up, and the long-term prediction is that it will eventually become a swamp.

For now -- at least -- the birds still flock to Lake Baringo.

But only a few miles away -- there are no birds -- and a once fertile grassland ecosystem has turned into a sea of dust.

(Tribal Farm)

Paul Parsalaach's life revolves around caring for his livestock. Every morning his cattle and goats are let out to graze. And every evening he and his wife check their herd for ticks and thorns as they return. For as long as Paul can remember the family's days have been defined by the herd's search for grass.

Paul is caught between two worlds. He and his Njemp tribe once lived a nomadic life. Now they live in permanent villages. This gives their children a chance to attend local schools -- the opportunity to become modern Kenyans.

(Paul On Motorcycle)

But every time Paul Parsalaach crosses his ancestral territory, he is reminded of the conflicting pressures of the 21st century. As his people became more sedentary -- their livestock stripped away the grass.

(Talking With Murray)

That's when he sought help from Murray Roberts. After years of watching Lake Baringo slowly disappear -- Murray started the Rehabilitation of Arid Environments Trust -- dedicated to reclaiming the local grasslands.

(Women In Field)

Murray's rehabilitation project shows great promise. It has already reclaimed almost 5,000 acres of once-denuded landscape.

(Paul's Family)

The collection of grass seed for land rehabilitation has become a new source of income for the women of Paul's household. It's brought glimmers of hope to a situation which seemed so desperate.

Paul Parsalaach

With the togetherness of the family, with our small amount of reclaimed land, we will make a living. The family is going to have a good future.

The lesson of Lake Victoria and Baringo is simple. The semi-arid grasslands and the surrounding rivers and lakes, are all interdependent ecosystems -- what happens to one -- affects the others. It's an important lesson -- especially for those living nearly eighteen hundred miles away -- in a remote part of South Africa.

(The Veld)

South Africa's central highlands are an environmental treasure. This may be the oldest grassland habitat on the planet -- so ancient that it existed before the Earth's original landmass broke up into continents over a hundred million years ago. Here, the word grassland is almost a misnomer -- only one in six plants are actually grasses.

The grasslands also act like a giant sponge -- a natural reservoir that soaks up water during the rainy season and slowly releases it during South Africa's long dry season. These wetlands are home to some 360 species of birds.

Until recently, this was an ecosystem in almost perfect balance.

Today it represents a microcosm of a global debate -- how best to balance badly needed economic development with the preservation of nature.

Hundreds of thousands of acres of grassland have been turned into tree plantations. They consume nearly 40% of any available rainwater -- water that is necessary to maintain the delicate ecological balance of the grasslands.

But the timber industry also provides jobs -- and South Africa is desperately poor. Allan Robertson owns a local lumber mill. He knows how serious the situation is.

Allan Robertson

It is vitally important that what we are doing here is first and foremost giving us a living. We employ a number of fifty-two people who work two shifts a day. And it's just, I think an indication of where we are at in terms of the economics and the desperate need of folk in our province. Some of the men actually said, "you don't know how hungry we are. We have folk who are dying of AIDS in the villages and we've come to look for work and we desperately need food.

The timber industry is at the center of an environmental dilemma. Rural South Africa's unemployment rate is nearly 60% and the industry employs over 135,000 people. While no one questions that the country needs jobs -- economic development is slowly destroying the grasslands. Here in South Africa -- as in Inner Mongolia -- it's still too soon to say how

widespread the damage will be. However, there are places in the world where the consequences are dramatically apparent.

(Cattle Market)

Only a few miles from the center of Buenos Aires is one of the largest livestock markets in the world. Almost 15,000 head of cattle are bought and sold in a day -- well over 2 million every year. Ranching in Argentina is not just big business -- it's the heart and soul of the nation.

(Sea Of Grass)

Much of Argentina is a vast prairie of fertile soil -- an ocean of grass extending from the Atlantic coast to the snow capped Andes.

(Pampas)

But, the most fertile part of the pampas is in central and eastern Argentina. The weather here is constant -- mild and moist -- perfect for raising cattle.

(Gaucho Montage)

The pampas of Argentina have a long and romantic history. Much of it revolves around an almost mythical character -- the Gaucho. The Gauchos were the cowhands. Independent and proud -- they rode the open range -- herding cattle. With his wandering lifestyle and fierce code of honor the Gaucho was also the symbol of an earthy nobility. Today this is a way of life that's almost completely disappeared.

(Hector Torroba's Ranch)

Hector Torroba has been a rancher for over fifty years. Over time he has witnessed enormous change. Natural cycles are now hurried along by science -- and Gauchos no longer ride the range. They are more likely to be found injecting cattle with hormones. This insures that all the cows calve at the same time. Though the cattle industry continues to grow.

(Farming)

Crop production is the greatest threat to the pampas. Lured by rising prices for produce -- farmers now control thirty percent of the grasslands. Once converted to cropland -- the pampas will never come back. Any further loss of the grasslands could be devastating. And no country in the world has experienced a greater loss of this treasured ecosystem than the United States.

(Parade)

This is the heartland of the American west -- home to many of the dreams and hopes that built a nation.

(Rodeo)

Cimarron, New Mexico is also a place that still celebrates the traditional skills of the American cowboy. These are the children and grandchildren of early pioneers -- the thousands of settlers that forged a life from a vast unspoiled wilderness.

(Early Settlers)

They came by wagon train -- and what they found was astonishing. Four hundred million acres of shimmering grassland that stretched from the Missouri River to the Rockies -- from Texas to Canada. It supported 30 million buffalo -- and vast herds of deer, antelope, and elk. It was an ecosystem that seemed inexhaustible. It wasn't.

(Army Of Plows)

The destruction of the North American grasslands proceeded with a speed and intensity unparalleled in history. Gone are four hundred million acres of open rangeland.

(Farming Today)

In the end, 80 percent of North America's grasslands were plowed under -- permanently destroyed to make way for endless rows of wheat, corn, and soy beans. It didn't take long -- less than a hundred years. Today the Great Plains feed a nation -- it's become a breadbasket for the world. But at what price? Like the pampas of Argentina and the Veld of South Africa -- the prairies have become the domain of big business.

(Gray ranch)

Fortunately there are those who are dedicated to preserving what's left of a fragile ecosystem. The Gray ranch is in the southern part of New Mexico. It's become a laboratory for studying old and new ways of sustainable ranching -- a unique partnership between traditional cowboys and rangeland ecologists. In the spring the cattle are rounded-up. This is the time of year when calves are separated from the herd -- branded and vaccinated. Here at the Gray ranch they use more traditional methods of working the cattle.

(Fire)

Controlled burning is perhaps the most important grassland management technique used at the ranch. If a fire starts during a lightning storm it's allowed to burn. More often, it's ignited by fire management experts. Grassland fires regenerate the land. They clear away dead growth and invading trees and shrubs. Though the blades of grass are consumed, the root systems are undamaged by the fire.

A barn dance has always been a celebration of the values that are a part of the American West.

It's a heartening twist of fate that the people of the Gray Ranch -- whose ancestors may have played a role in the devastation of the prairie -- are today its staunchest defenders. Their deeply held respect for the land speaks volumes to people living on the grasslands all over the world.

(Closing Montage)

All those who are willing to find ways to strike the right balance -- between what we want -- and what nature can provide.

Though separated by distance and culture -- for those who work the land -- for the 800 million who draw sustenance from the grasslands of the world -- there are common bonds. Bonds that are renewed by each generation -- bringing new ideas -- new attitudes -- new hope. Planet Earth. This is our home -- this is where our journey of discovery must begin.

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