



Journey to Planet Earth

Transcript for Episode 05: Seas of Grass

Complete Version

Journey to Planet Earth is produced by

**Screenscope, Inc.
4330 Yuma St, NW
Washington, DC 20016**

(Opening Tease)

Next on Journey to Planet Earth -- saving the world's grasslands. Inner Mongolia -- caught between ancient traditions and globalization. Kenya -- coping with the loss of precious rangelands and changing tribal customs. Argentina -- ranchers struggling with economic disaster. South Africa -- conserving the biodiversity of the world's oldest aboriginal prairie. And the American West -- revitalizing parts of the Great Plains to save a vanishing way of life. Coming up -- Journey to Planet Earth explores the link between environmental pressures and the survival of the world's grasslands.

(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. There are few places on Earth as remote and isolated. Yet the treeless steppes of Asia have sustained nomadic herders and horsemen for thousands of years.

(Horsemen)

These are the proud descendents of Genghis Khan -- and his tribe of celebrated warriors. Eight hundred years ago they ruled a vast empire stretching from the Pacific Ocean to the Mediterranean.

(Silk Road)

Inner Mongolia was also part of the legendary Silk Road -- once the only link between Asia and Europe. Desert caravans also brought new cultures, and nearly half a dozen major religions.

(Buddhist Temple/Mosque)

Today the Silk Road traders and the Mongol warriors are long gone -- but their spiritual and cultural legacies remain. Ancient Buddhist Temples are still sanctuaries for the faithful -- and 400 year old Mosques still beckon the devout.

(Opening Ceremony)

During the summer months thousands gather at a series of grassland festivals. Opening ceremonies are elaborate cultural celebrations. But ultimately the major focus of attention is the horse. Praised in song and depicted in folk dance -- the horse has always been central to Mongol culture -- it's a passion that extends into the world of art.

(Artist)

Hu Dar is one of China's most popular artists. During grassland festivals he is often invited to demonstrate his craft. His specialty is horses. With just a few simple brush strokes Hu Dar captures the animal's elegance -- the grace and poetry of its motion.

(Steppes)

Inner Mongolia's love affair with the horse begins at childhood -- and never seems to end. In this -- and so many other ways -- the grasslands of Inner Mongolia are dominated by the cultural rhythms of the past -- and by the ebb and flow of the seasons.

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. This is a small hamlet of 25 herding families -- about 200 people. Like thousands of other villages throughout the steppes -- during the summer months -- Hoobai is a virtual ghost town. Its residents have moved onto the grasslands -- living in gers -- small mobile tents made of felt and canvass stretched over wooden frames.

(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. There are no fences out here -- the grasslands are a shared commons -- and like pastoralists all over the world -- they depend on the grazing patterns of their neighbor's animals to keep the ecosystem healthy. 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. This once unassuming fishing village is now a modern riverside metropolis -- the commercial and financial center of China and perhaps all of Asia. Today many of it's 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. Yet not very long ago these food stalls were empty.

(Famine)

The year was 1962. Angry protesters disrupted the country -- a series of misguided political decisions brought agricultural production to a halt -- famine claimed a staggering 30 million lives.

(Shanghai Food Market)

Today the nightmare of extreme hunger is long gone. In fact, China accounts for a quarter of the world's consumption of meat. Though the abundance of food is a testimonial to China's economic boom, it has also contributed to severe environmental pressures.

(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.

Daniel Miller

When grasslands become so overgrazed and they lose their plant cover, they're very difficult to restore again. There is just really too many animals out on the grasslands, and it's gonna be necessary to stock animals at what the land can support.

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.

(Beijing Sand Storm)

Three hundred miles to the east, these storms often paint China's capital a haunting yellow. For days -- thick dust covers Beijing's horizon -- traffic becomes a nightmare -- the stifling air causes respiratory problems and severe discomfort. 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. It's the only life they and their 22-year-old daughter Shuju know. Though their lifestyle may seem modest, until recently, the family was doing quite well. 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.

This is the first time a member of their family will leave the grasslands. It's a decision Shuju's parents find hard to accept. Hooya fears that her children are losing many of the traditions passed down from generation to generation. For Shuju, it's a chance to enjoy some of the luxuries of China's expanding economy.

(Hailar)

Her destination is Hailar -- a city of over 200,000. Once a quiet agricultural village, it has become a modern industrial center in Inner Mongolia. Employment and educational opportunities are luring millions away from the countryside -- and it's rapidly changing the face of the grasslands. In the evening cultural change becomes more obvious -- even older generations are embracing a more contemporary -- though slower paced -- existence.

(Grasslands)

But for those still living on the grasslands -- the struggle between old and new has never been greater. 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 all over the world.

(Lake Victoria)

Kombewa is a small fishing village along the shores of Africa's Lake Victoria. These waters, shared by Tanzania, Uganda, and Kenya are so big the lake is virtually an inland sea. Not very long ago Lake Victoria provided a livelihood for 10 million people. But now it's home to an exploding population of over 30 million. Here in Kenya, most live in extreme poverty -- the average income is less than \$400 a year. The burdens of over-population have also brought extreme ecological problems. Lake Victoria is surrounded by grasslands.

Silt coming from over-grazed and severely eroded savannas is slowly choking these once fertile waters. Local fishermen are experiencing drastic declines in their catch. Many species are endangered, some have already disappeared.

(Computer Visualization)

A computer visualization of Lake Victoria shows a major source of the pollution. Shown in green and red, gigantic plumes of silt pour into the lake from Kenya's Nyando River. The grasslands surrounding the river are scarred by a network of severely eroded gullies.

They are being studied by an international team of soil scientists.

Marcus Walsh

The gully that you see here today is not something that occurred over a geological time scale, but it's something that's very, very recent and man-made. The area that we're standing in now, 30 to 60 years ago, was part of an extensive grasslands Savannah ecosystem that stretches from here down into the Serengeti Plains in Tanzania. Over the last 30 or so years, this area has become very much degraded due to human encroachment.

This irrigation pipe once ran along the ground -- today it's suspended nearly 50 feet above a badly damaged landscape.

Keith Sheppard

This whole lake plain is primed for a major catastrophe if we get another major rainfall event like occurred in the 1960s, here, when you have massive downpours. This whole area will carve up and wash into the lake and cause huge sedimentation problems with massive fish kills.

Enhanced satellite pictures reinforce the team's research.

(Satellite Imagery)

The green indicates healthy grassland. The blue-gray denotes eroded areas that have lost most of their vegetation. The devastation covers over a third of the Nyando River basin.

(Eroded Land)

Only a hundred miles from Lake Victoria, a part of the basin's ecosystem has already collapsed. Six of seven local rivers have dried up -- victims of a water dependent and soaring population.

(Lake Baringo)

A major casualty is nearby 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.

Murray Roberts feels a strong bond to this place and its people. Over the years, they have watched with dismay as their jewel of a lake turns brown -- as it slowly loses volume.

Murray Roberts

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.

Murray knows the reasons all too well. Increased agriculture has siphoned river water away from Baringo. Overgrazing has led to massive amounts of soil erosion and silting. 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 Parsalaach

When I was young--that's 30 years ago--the land was not as degraded as it is now. There was a lot of vegetation. There was a lot of grass. But at the moment it is difficult because all the grass is gone and the land is not enough for everybody and their livestock

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. Not long ago Paul realized that time was running out -- for his family -- and for the Njemp tribe.

(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.

Murray Roberts

We're looking at a situation where about 82 percent of the area of Kenya is semiarid, and very much of that area has become overgrazed and denuded. Now, using the techniques that we have developed here, a lot of that area can be rehabilitated and become useful again.

Only indigenous grasses are used -- hardy native species which bind eroded soils together and start the process of grassland regeneration.

(Women In Field)

Murray's rehabilitation project shows great promise. It has already reclaimed almost 5,000 acres of once-denuded landscape. His effort not only help restore the savanna, it provides jobs. These sheaves of Aristida grass are being harvested and taken to a local market for sale as thatching and fodder.

(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 restoration of the Savannah is good not only for humans but for all the species that thrived in this once lush environment -- like the weaver birds -- who now have enough grass to build their nests. It's also a heartening reminder that there are ways to restore the fragile ecological balance of the grasslands without losing the region's cultural identity.

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.

(Wakkerstroom)

Wakkerstroom is a small village of 6,000 people -- most days it's quiet -- except on those occasions when the silence is broken by the prayers of a spirit medium.

(Lizzy's hut)

Lizzy Ngwenya is a Sangoma -- a traditional healer of the Zulu people. She is communicating with her ancestral spirits -- asking for guidance to treat a patient suffering from asthma. At the end of the session she prescribes an herbal remedy that often provides a measure of relief.

(Lizzy on the grasslands)

Two or three times a week Lizzy searches the neighboring hillside. Like the other 20,000 traditional healers in South Africa -- she is always searching for plants that have healing qualities. For centuries, Wakkerstroom has provided Sangomas like Lizzy Ngwenya with nearly a thousand different medicinal herbs and plants. This valley sits in the middle of one of the most unspoiled grassland ecosystems in the world -- the high veld.

(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. During the spring and summer months over eight hundred species of wild flowers carpet the landscape -- turning it into a delicate mosaic of pastels.

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. A sanctuary for migrating flocks from North Africa and Europe. These highland pastures provide fertile and abundant grazing for animals -- both wild and domestic. Over-grazing and erosion have never been a problem. 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.

John McAllister

These beautiful grasslands are one of the oldest landscapes in Africa -- around about 180 million years. They used to cover as much as 60 percent of Africa and today they're being threatened by all sorts of things. Perhaps the most invasive are alien tree plantations to feed great big paper and pulp mills for Japan and the U.S.

(Trees)

Not very far from Wakkerstroom hundreds of thousands of acres of grassland have been turned into tree plantations. Logging has become a major industry in South Africa. These trees being harvested -- mostly pine and eucalyptus -- are not native to South Africa -- and they are beginning to take over parts of the

veld. They consume nearly 40% of any available rainwater -- water that is necessary to maintain the delicate ecological balance of the grasslands.

(Sawmill)

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 its 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.

(Buenos Aires)

Until a few years ago Argentina was the world's eighth richest country. The capital, Buenos Aires is a sophisticated slice of the old world. It vies in elegance with Paris, Madrid, and London. But recently, for its 12 million residents, a robust way of life turned violent.

(Rioting)

Rioters protested -- as Argentina's banking system suddenly collapsed. Life savings vanished over night -- and a seemingly prosperous economy was replaced by poverty and anger. But as Argentina continues to suffer from economic uncertainty -- there is one industry that still gives the appearance of prosperity.

(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. Here, in the shadow of fourteen thousand-foot peaks, is the Argentine State of Patagonia. Shaped by the never-ending winds that roll off the eastern slope of the Andes -- this is a place famed for its desolation and rugged beauty.

(Indian Caves)

Most of Patagonia was once a region of nomadic Indians. They are almost all gone now, driven from the land or massacred during the early days of colonization. All that remain are a few ancient cave paintings - - very little to remind Argentina of its indigenous past.

(Deserted Railroad Station)

Patagonia's extreme isolation attracted a colorful crew of outsiders. Near this remote railroad station Butch Cassidy and the Sundance Kid holed up for a few years. The American outlaws bought a 12,000-acre ranch. Four years later they returned to crime. Driven out, they say, by the harsh Patagonian climate.

(Round-Up)

But most of Patagonia's immigrants were honest, hard working sheep farmers. They came here because the terrain was perfect for raising sheep. Several times a year the herdsmen on the El Manantial ranch round-up their livestock. The herding takes several weeks because in Patagonia thousands of acres of grazing land are needed to support even a modest-sized flock.

(Sheep Shearing)

After the sheep are driven into corrals -- they are separated. Some are designated for market -- others for shearing. The average sheep will yield about ten pounds of wool. Once this was a thriving industry. Today it's a business that's struggling. Falling prices, a weak economy and competition from synthetic fibers are problems -- but environmental degradation is the most serious -- and it's slowly destroying the wool industry.

(Patagonia Desert)

Seventy years ago, Patagonia's prairie supported twenty million sheep. Today it can barely support eight million animals. Overgrazing has stripped the land of grass -- leaving the topsoil vulnerable to wind erosion. An astonishing eighty percent of Patagonia is in danger of turning into a desert.

(Pampas)

But, the most fertile part of the pampas is in central and eastern Argentina. The weather here is constant -- mild and moist -- not nearly as harsh as in Patagonia -- 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. His freedom and bravado -- celebrated in many poems and songs -- once represented the spirit of Argentina's open range. In the 18th and 19th centuries the grasslands of Argentina were dominated by vast estates. The owners of those ranches saw themselves as South America's rural aristocracy -- country squires with a lavish lifestyle. The Gauchos were the cowhands of those estates. 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.

(Oscar Bumade's ranch)

Oscar Bumade owns a small but successful ranch with about 60 head of cattle. He has little need for Gauchos -- but he is a lover of the silver daggers and decorations which were symbols of Gaucho honor. Oscar's wealth enables him to pay a price for a collection no Gaucho could ever have afforded.

(Silversmith)

Today, traditional Gaucho ornaments are still made by silversmiths like Juan Jose Draghi. Juan Jose's workshop is legendary in Argentina for the precision and beauty of its work. His sons have all studied with master craftsmen in Italy. The pieces they create fetch exorbitant prices. The dagger Oscar Bumade is buying will cost him twenty-five hundred dollars. This is an extravagance fewer and fewer can afford.

(Hector Torroba's Ranch)

Economic realities have forced the gracious old estates to become efficient enterprises. 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 -- the recent economic crisis make it hard for ranchers to resist making even higher profits from intensive farming.

(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. But farming also brings other problems.

Ernesto Vigilizzo

Argentina is forced to increase their agriculture productivity. So we will have to pay special attention of problems like contamination, for example, because we are increasingly using more fertilizers and more pesticides

(Floods)

Without the grasslands to absorb the water -- during the rainy season the Pampas has become vulnerable to flooding. Even worse -- the water is tainted by agricultural chemicals -- fertilizers and pesticides. Suddenly rivers and aquifers are at risk. Though much of the Pampas still remains intact -- for those that are still deeply attached to the land -- for those that still earn a living riding the open plains of Argentina - - 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)

It's July 4th -- Independence Day. Nobody seems to celebrate it with quite the enthusiasm as the people of Cimarron, New Mexico. This is the heartland of the American west -- home to many of the dreams and hopes that built a nation.

(Rodeo)

Cimarron 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.

(Fort Union)

The nearby ruins of Fort Union are a reminder of those early days. One hundred fifty years ago this was the west's biggest military outpost. The fort played a key role in shaping the destiny of the southwest.

It kept guard over this part of the Santa Fe Trail -- and the thousands of settlers heading for the fertile prairies of the Great Plains.

(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 the vast herds of animals that roamed the plains. Gone are the thousands of species of plants and flowers that blanketed the prairie. And 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.

(Old Farm)

Most small farmers have given up. Unable to compete -- they left behind quiet reminders that mechanization means fewer people are needed to farm larger tracts of land. One hundred years ago farmers were nearly 35% of the American population. Today, less than 2% of American families work the land.

(Springer, New Mexico)

Rural villages like Springer, New Mexico are on the verge of becoming ghost towns. The signs on their boarded up shops are sad reminders of a once thriving farm and ranching community.

(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. The herd is carefully managed -- it's never allowed to exceed the grazing capacity of the land. 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. For the younger generation it's a learning experience that's meant to be passed on to future ranchers.

Ben Brown

We've got 502 square miles here. It's not pristine but all the pieces are there, all the systems are still functioning. This not only means that we have, an incredible array of biodiversity, but it also means that we can use natural processes to do much of our management here on the ranch.

(Fire)

Controlled burning is perhaps the most important grassland management technique used at the ranch. If a fire starts during a lightening storm it's allowed to burn. More often, its 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.

Charles Curtain

The fire we're doing here today is part of a long-term ecological research study that looks at the interaction of fire with grazing and fires is important in arid grasslands. Really any grassland. It increases the nutritional values of the grasses which is good for both the cattle, but also native species such as antelope.

Warner Glenn

It goes together. If you have a healthy wildlife habitat, it's gonna be good for your agricultural interests. What we're doing here is trying to maintain and manage open country, for open country keeps your wildlife borders open and your habitat healthy, and that benefits your livestock, too.

(Barn Dance)

But for the people that work at the Gray Ranch, it's not just about saving the grasslands -- it's about preserving a way of life. Whenever possible they join together as a community. 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)

It speaks directly to the herders of Inner Mongolia who are developing ways to cope with an expanding desert. It has much to say to Paul Parsalaach and all those struggling to break the cycle of poverty and land degradation. It gives hope to the people of South Africa who are recognizing that there are no easy answers or quick solutions. And it encourages the people of the Pampas to continue their battle against the loss of a precious resource. In the end, if the grasslands of the world are to survive, it will be because of the efforts of people everywhere. 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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