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## **Saving the American Serengeti – An Environmental Market Story**

*The American Prairie Reserve has created a private-public partnership in eastern Montana to restore 3.5 million acres of native flora and fauna.*

### **Environmental Concern**

The federal government owns roughly 28 percent of the land in the United States. Yet, according to the American Prairie Reserve (APR), a nonprofit, protected areas of western grassland are insufficient. In North America, more species have been lost in the grasslands than in any other biome. But government does not have the resources, nor do government actors have the proper incentives, to efficiently or effectively manage large landscapes.

### **Market Solution**

To expand the western grasslands, APR is taking an innovative approach. They began in 2001 to expand conservation areas around the nearly million-acre Charles M. Russell National Wildlife Refuge in Eastern Montana. Networking public and private land from the fragmented landscape, APR's goal is to extend the grassland habitat to over 3.5 million acres to enhance existing wildlife populations and reintroduce lost native species. By July 2017, APR had raised \$100 million from private donors to help purchase lands from willing sellers in the region. Ranch purchases often include federal grazing allotments that allow APR to reintroduce bison to replace the cattle.

Local people are a big part of the equation. To motivate wildlife friendly management on other private lands, APR has a menu of compensation packages that encourage ranchers to enhance the prairie characteristics APR is seeking to conserve. APR is paying landowners to stop tilling and to live with wildlife, like elk, deer, and prairie dogs that compete for forage, and predators that threaten livestock. Camera traps are placed on some land, for example, and APR pays the landowner for wildlife caught on the video.

The wildlife incentive payments are funded by Wild Sky Beef, a private company owned by APR. Wild Sky Beef buys and sells grass fed, grass finished beef. Profits from the company are reinvested in the region to support wildlife friendly ranching. Paying for conservation can motivate private ranchers to work toward a common conservation goal by aligning the incentives with the desired outcomes.

### **Environmental Market Learning Principles:**

#### **1. Environmental problems are the result of conflicting demands on scarce resources.**

Resources are limited; therefore people must choose among various uses. A choice to do one thing is also a choice to not do something else.

##### **▪ What are the competing demands for the resource?**

APR would like to expand and protect the western prairie. This is a fragmented landscape of private ranches, federal grazing allotments, small communities, and a large national wildlife refuge. Rather than lobby for public ownership and management, APR chose a more innovative approach that uses markets to motivate cooperation.

#### **2. People respond to incentives.**

Incentives are the rewards and punishments defined by laws, cultural norms, regulations, property rights and other formal and informal rules of society.

##### **▪ What are the incentives driving resource use and management?**

Legislatively determined budgets and a public input process that encourages interest groups to lobby for preferred resource uses are the drivers for federal land management decisions. APR, on the other hand, is using markets to change behavior. APR incentivizes landowners by paying them to manage in a wildlife friendly manner. Ranchers that allow elk and deer to forage with cattle are paid a few additional cents per pound for cattle. When wildlife, such as black bear and mountain lions, currently rare in the region, are caught on video, APR pays them a fee of several hundred dollars. Landowners are responding and helping APR enhance this wildlife habitat.

### 3. Markets encourage mutual gains from trade.

If property rights are secure markets function well to allocate scarce resources directing them toward their highest valued use. Property rights are secure when they are well defined and enforced in a manner that allows exclusive but tradable rights and ensures accountability for impact on others.

#### ▪ **What are the contractual or institutional arrangements? How do they facilitate or hinder trade? What are the potential gains from trade?**

APR is using market solutions to restore the western prairie. They are creating markets and estimating price for the various wildlife friendly practices. In part, they have been successful because federal grazing leases consider bison livestock so they can reestablish the native wildlife on the grazing allotments. This is a win for APR but has been a stopgap for other conservation groups trying to restore various non-livestock wildlife, such as the desert tortoise, big horn sheep, and grizzly bears. Grazing permits are based on a use it or lose it system. Rights to federal grazing allotments that are not used for livestock forage over several years may be reassigned.

### Classroom Questions:

- Why is there conflict over creating a prairie reserve?
  - *The conflict stems from the alternative land uses. The creation of a public park, for example, likely means displacing current landowners and users. A bison range displaces cattle. APR has taken advantage of the fact that not all uses are mutually exclusive. They have found win-win solutions by incentivizing landowners through voluntary trades that help conserve the prairie.*
- What are the incentives to enhance the western grasslands?
  - *Using a market approach APR is paying landowners to protect native flora and fauna. APR generates revenues through private donation and from its Wild Sky Beef company that buys and sells grass fed and finished beef.*
- What are the key characteristics of property rights and why are they important for prairie conservation?
  - *A huge landscape is required to protect the native flora and fauna of the prairie. An area far larger than the government can obtain and protect. Landowners with secure rights can choose how to manage their lands. APR is purchasing lands to help enhance their vision of the prairie. Where those lands are not for sale they are taking advantage of the other characteristics of property rights and negotiating with owners to enhance wildlife habitat.*
- Who gains from payments for wildlife friendly management?
  - *Both APR and the landowner win from these voluntary trades. APR gets more prairie conservation and the landowner is compensated.*
- Why aren't payments for wildlife friendly management more common?
  - *Many conservation activities create non-market benefits. It is hard to force people to pay when they can benefit regardless. Anyone that wants more western prairie to exist benefits from APR's actions. APR has created a market for the exchange by raising private funds to pay for conservation.*

### Supplemental Reading

- American Prairie Reserve. <https://www.americanprairie.org/>
- Byrne, Kristen. 2016. "How to Deal with National Parks' \$12 Billion Maintenance Backlog? *The Sacramento Bee*. December 17. (A brief look at the shortcomings of national Park management.)