

Running Out of Agricultural Land

By Dwight Lee

[Audio](#) (8:48 minutes)

Question for thought: Does private ownership of property provide owners with incentives to maintain and conserve resources? Explain.

Fear that we are running out of important resources is perpetual. Oil is a favorite thing to worry about; landfill space is another, and trees yet another. I could continue listing things (coal, copper, iron ore, even tin) that people have worried would soon be exhausted. In most cases the fear is baseless—fueled by organized interests hoping to capture advantages by scaring the public, by sloppy journalism, and by a general lack of basic economic understanding. Where concern is appropriate, the problem is invariably the lack of private property rights in the threatened resource.

To see the role of property rights in preventing the depletion of resources, consider the following question: have we ever run out of a nonrenewable resource? I have asked dozens of audiences this question and have never found anyone who can name one. But aren't nonrenewable resources the ones we are most likely to run out of? After all, they are nonrenewable. More puzzling, we have run out of—driven to extinction—a number of animals, which are renewable. Aren't these the resources we should be least likely to run out of? The puzzle is resolved by recognizing that nonrenewable resources just sit there; they don't run around, so it is easy to establish private property rights over them. People conserve on resources they own by taking their future value into account. Many animals, because of their fugitive nature, are difficult to own as private property, and so people have little motivation to consider their future value. So despite their renewability, some of these animals have been extinguished.

Creating scares that we are running out of nonrenewable resources would be far more difficult if people understood the power of private property to motivate the proper consideration of our resources' future value. But here I consider another reason people mistakenly fear we are running out of, or dangerously depleting, resources—failure to distinguish marginal value from total value.

Disappearing Farmland

I had just begun my first teaching job at the University of Colorado when I was asked to participate in a debate on the “problem” of disappearing farmland.

Despite my compelling arguments (several in attendance who agreed with me before the debate still agreed with me afterward) that decreasing farmland was the result of market forces working properly, concern over lost farmland has continued. For example, Lester Brown of Worldwatch Institute puts out an annual report predicting that food supplies will fall behind population growth, a problem he sees caused partly by the loss of farmland to development. In my local newspaper, columnist Tom Teepen recently warned, "Development is taking up farmland, forest and other open space in this decade at twice the rate of the 1980s Between 1992 and '97 some 16 million acres went to development."¹

It is true that in the United States fewer acres are used for agriculture today than in the past, although the loss is far less than what Worldwatch and United States Department of Agriculture report.² But this "loss" of farm land is not a crisis or even a cause for concern. Instead, it is good news. First, with less land being used for farming, more land has reverted to open space and forest. You won't hear this from the crisis crowd, but there is more forestland in the United States now than 80 years ago.³ Second, farmland has been paved over for shopping centers and highways, converted into suburban housing tracts, covered with amusement parks, developed into golf courses, and otherwise converted because consumers have communicated through market prices that development is more valuable than the food that could have been grown on the land.

Food or Golf

Why would consumers willingly sacrifice food for golf courses, shopping centers, and parking lots? Isn't food more valuable than golfing or parking? Of course—in total value. If the choice is between eating and no golf or playing golf but no eating, even the most avid golfer would choose eating. But economic choices are not all-or-none choices. Instead, we make decisions at the margin, deciding if a little more of one option is worth sacrificing a little bit of another. And at the margin it isn't clear that food is more valuable than golf or many other things we can live without. Golfers are communicating through greens fees that another golf course is at least as valuable as the additional food sacrificed.

At the margin, golf is certainly more valuable than food would be if millions of acres of farmland had not been "lost" to development. In 1900 most of the horsepower used on the farm was really horse power, or mule power, and tens of millions of acres were needed to grow the food for these animals. Trucks, tractors, harvesters, and other gasoline-powered farm machinery have efficiently substituted for these animals and the acres needed to feed them. Also, much less land is needed now to feed the same number of people because

improvements in fertilizers, pesticides, irrigation, seeds, and weather forecasting allow more food to be grown per acre, and improvements in harvesting, packaging, storage, and transportation allow more of what is grown to get to the dinner table. If we still devoted as much land to farming as we did in 1900, with today's technology we would be knee-deep in cantaloupe. In this situation, how valuable would another few acres of cantaloupe be compared to another golf course that could be constructed on those acres?

We don't have nearly as much farmland as we did in 1900 because as food production increases, its marginal value decreases relative to that of houses, shopping centers, golf courses, and more. Consumers communicate this change in relative value with purchases that cause food prices to decline relative to the prices for other uses of farmland. This motivates a decrease in farmland that continues as long as the marginal value of land is greater in nonfarm uses than in agricultural production.

But don't expect the farmland "crisis" to disappear. Public agencies hoping for bigger budgets, and private organizations hoping for more research funding or larger subsidies, are always anxious to identify crises to scare the public. Crisis creation wouldn't be so easy if more people understood the difference between total value and marginal value.³

Concluding Question: Why do secure property rights promote economic progress? Why do common ownership and insecure property rights hinder economic progress?

Reference:

Lee, Dwight R. "[Running Out of Agricultural Land.](http://www.fee.org/publications/the-freeman/article.asp?aid=2157)" *The Freeman: Ideas on Liberty* - July 2000. Retrieved from the World Wide Web on 20 November 2014 at <http://www.fee.org/publications/the-freeman/article.asp?aid=2157>.

¹ Tom Teepen, "Facts Justify Criticism of Suburban Sprawl," *Atlanta Journal and Constitution*, December 26, 1999, p. D4.

² In chapter 2 of *Hoodwinking the Nation* (New Brunswick, N.J.: Transaction Publishers, 1999), the late Julian Simon gives examples of exaggerated claims by organizations, including the USDA, that benefit from the perception that farmland "loss" is a serious problem.

³ Gregg Easterbrook, *A Moment on the Earth* (New York: Viking, 1995), pp. 10-13.