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## COMMENTARY

# What role land use planning in the restructuring of American agriculture?

By Collin Fallat

**A** restructuring of American agriculture has been underway for 380 years. This restructuring began when members of the Jamestown Colony decided to stop looking for gold and start growing tobacco. If one has doubts whether restructuring has been an ongoing process, consider the fact that at the time of the American Revolution more than 90 percent of the population in the country was engaged in production agriculture. Today, just 2.5 percent of the population is involved. As the agricultural community continues to adjust to rapid social and technological changes in a global economic environment, adjustments in agricultural land use policy and philosophy also will continue.

### An historic overview

A review of land use history in the United States reveals two very different concepts of landed property rights. These two concepts involve both cultural attitudes that stress absolute property rights and legal precedents in land ownership placing the public welfare above private rights. Although American cultural attitudes toward land had their roots in Anglo-Saxon tradition and common law, other attitudes toward land ownership developed in this country. America offered land for the landless, and it is understandable that those experiencing land ownership for the first time would assume a protective posture toward their land and the right of land ownership.

One form of early landowner protection was fee simple ownership. The concept of fee simple emerged following the Revolutionary War. Fee simple ownership meant owning the land from the center of the earth to the zenith of the sky. Ownership of the land under a fee simple philosophy meant that land was the absolute property of its owner, to do with as he or she wished without interference from others or the government.

Cultural attitudes change slowly, and the American attitude toward rights associated with land ownership remains rigid. This attitude persists despite historic and legal precedents that generally run counter to popular concepts of landed property rights. Regardless of strong beliefs in the absolute rights of land ownership, the courts, the public, and landowners themselves have been willing to impose land

use controls when the situation arose.

Contrary to the popular belief that agricultural land use regulation is a new form of governmental intrusion, the beginning of agricultural land use planning in America can be traced to the Jamestown Colony in 1607. The precedent established was the role of governmental regulation of agricultural land use in the form of crop subsidies and cropping patterns. The British government, faced with overproduction of tobacco, implemented quotas on Jamestown Colony tobacco producers for two major reasons. The British government wanted to deny tobacco markets to Dutch traders, and they wanted to keep the world price of tobacco high. When Jamestown farmers complained that production quotas deprived them of a living, the British government implemented tobacco subsidy payments to compensate growers for lost production opportunities. As everyone knows, tobacco quotas and subsidies are still in effect 380 years later. Moreover, quotas and subsidies have been extended to other commodities over time.

Other colonial governments implemented agricultural land use regulations early in the colonization of America. In 1631, the Virginia House of Burgesses passed an act mandating that every white adult over the age of 16 grow two acres of corn or suffer the penalty of forfeiting his or her entire tobacco crop. To prevent overzealous planting of export crops at the expense of the colonies' food supply, colonial governments placed stringent requirements upon landowners to sow amounts of corn, peas, or grain equal to the area planted in tobacco. Failure to comply resulted in forfeiture of the landowner's entire tobacco crop.

Colonial governments, reflecting public concern, addressed soil erosion and land depletion as well. In 1632, Virginia officials became concerned about the loss of valuable agricultural land from the overplanting of tobacco. The Colony mandated that no more than 2,000 plants could be planted per "pol." The penalty for noncompliance was destruction of the landowner's crop. In 1739, the Massachusetts Colony addressed the problem of soil erosion resulting from overgrazing of livestock on an island in Ipswich Bay by enacting a law to prevent livestock from running at large on the island.

A researcher of American land use policy soon concludes that this nation always has had an ongoing though undeclared land use policy. Indeed, "The Quiet Revolution in Land Use Control," the title of a 1971 report to the President's Council of Environmental Quality, has continued since the nation was founded. There have been lapses in American agriculture land use policy, such as the abuse of western rangeland through the early 19th century and the infamous dust bowl of the 1930s. But public opinion, fueled by increasing natural resource and environmental awareness, has resulted in stronger national land use policy. This trend has manifested itself more clearly in the past two decades through federal involvement in public land management,

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federal agricultural program management, and state land use laws.

### The current land use planning base

In the past two decades, congressionally mandated agricultural land use policy has resulted in a framework for continued agricultural land use planning in the future. These acts include:

► *National Environmental Policy Act of 1969 (NEPA)*. This act set federal policy for protection of the environment by requiring detailed environmental impact statements for actions having significant effects on the human environment. Primary requirements of the act are (a) that environmental implications be considered in all governmental decisions, (b) that all federal agencies must file environmental statements relative to federal actions, and (c) that members of the Council on Environmental Quality make policy recommendations related to periodic evaluation of the nation's environment. NEPA has had significant impacts on potential agricultural land use, particularly in the West. The act has served as an instrument in agricultural land use planning related to livestock grazing practices on public land, the development of irrigation projects, and the loss of agricultural land to large-scale industrial developments.

► *Federal Land Policy and Management Act of 1976*. This act firmly established the fact that the federal government would remain as the custodian of public land and would manage that land through comprehensive land use planning procedures. This act significantly affected agricultural land use on public land by limiting or eliminating livestock use on the public domain.

► *The National Farmland Protection Policy Act of 1982*. This act sought to maintain the quantity and quality of the nation's agricultural land base to insure an adequate food and fiber base for future generations. The act directed that any federally assisted farmland conversion had to meet land evaluation criteria as developed by the Soil Conservation Service (SCS). The act also provided for liberal definition of prime farmland by state or local jurisdictions, should these units of government choose to restrict local farmland to other land uses.

► *Soil and Water Resources Conservation Act of 1977*. This act set forth objectives and guidelines for new soil and water conservation programs under the direction of SCS. The act directed the secretary of agriculture to appraise, on a continuing basis, the soil, water, and related resources of the nation, thus providing long-range planning objectives to the nation's conservation effort.

► *Executive Orders 11988-90*. These orders, issued May 25, 1977, set forth unified federal policies and procedures for floodplain maintenance, use of off-road vehicles on public land, and wetlands preservation.

► *The Clean Water Act of 1977*. The long-term effects of this act are just now coming into focus. The act's non-point-source pollution provision directly relates to production agricultural practices on the land. In addition, Section 404 of the act aims to prevent rural landowners from altering stream channels or wetlands on agricultural land. Section 404 also addresses increased sedimentation due to plowing and consequent runoff from fields into adjacent streams.

► *The Food Security Act of 1985*. This act, the 1985 farm bill, contains significant and far-reaching land use mandates that just now are being assessed. The three mandates are

the sodbuster, swampbuster, and conservation compliance provisions. The sodbuster provision denies landowner eligibility for many U.S. Department of Agriculture (USDA) subsidy programs if highly erodible grassland or woodland is put into production without a conservation plan approved by the local conservation district in cooperation with SCS. The swampbuster provision similarly denies federal program benefits to farmers who drain wetlands for cropping purposes, but the provision offers no compromise of the type contained in the sodbuster requirements. The conservation compliance provision has the most far-reaching agricultural land use planning provisions of all. This provision denies USDA support programs if the landowner produces crops on highly erodible cropland without a conservation system approved by the local conservation district in cooperation with SCS. A fourth provision in the act that will influence agricultural land policy for at least a 10-year period is the Conservation Reserve Program (CRP), which seeks to reduce soil erosion and overproduction, thus curtailing crop price supports. The maximum acreage authorized to enter the CRP is 45 million, to be phased in through 1990. The program, though well-intentioned, has a contractual life of 10 years. There is concern that this program could revert to the same fate as the old Soil Bank program that cost the nation's taxpayers millions and was quickly undone in the rush to meet what turned out to be a short-lived agricultural export demand in the 1970s.

► *State and local land use planning*. Another major influence on agricultural land use planning is regulation by state and local governments. State and local governmental involvement in agricultural land use planning is fragmented, but exerts considerable cumulative influence nationally. This influence takes many forms, including property taxation, purchase of development rights, transfer of development rights, preservation of agricultural open space, right-to-farm laws, state soil and water conservation requirements, areas of critical and more-than-local concern, watershed management, special districts, family farm preservation, and agricultural zoning.

Unless major land use laws enacted in the last 20 years are amended significantly and/or public attitudes change drastically, these factors will have a long-term influence on how agricultural land is used in the United States.

### Changing technology

In addition to federal and state mandated agricultural land use planning, it is important to consider how changing agricultural conditions might affect agricultural land use. What will be the effects of changing land ownership patterns, robotics, genetics, world agricultural policy, and changing public attitudes? Will the trend toward larger, capital-intensive agricultural operations result in improved soil and water conservation practices? Or will maximization of profit result in land abuse? What role will robotic agricultural technology play in the use of land? Use of robotic farm implements may allow for more intensive agricultural practices on less land. Heavy machinery that compacts soil and is not adaptable to many conservation practices may be substituted for lighter, more manageable equipment. Genetic improvements may allow more production on less land, providing an opportunity for expansion of conservation reserves. Plant genetics also will permit development of plant species adaptable to natural or disturbed soil

and slope conditions that do not revegetate naturally. Plant genetics is an exciting frontier with the potential to be a valuable tool in soil and water conservation programs.

World agricultural policy can profoundly affect American agricultural land use policy. Resolutions adopted at the recent Venice Economic Summit and the Organization for Economic Coordination and Development meeting in Paris called for a world agricultural policy. At these meetings, U.S. officials proposed that nations drop all forms of farm subsidies by the year 2000. A 1986 World Bank study determined that farm subsidy programs cost world consumers and taxpayers more than \$100 billion annually. Worldwide concern about the magnitude of subsidy programs could result in support for lessening the burden of agricultural programs. U.S. Senator Larry Pressler of South Dakota, writing in a July 1987 issue of the *Christian Science Monitor*, proposed a worldwide conservation reserve as an eventual goal, facilitated by a massive cutback in world farm subsidies. Pressler expressed optimism based on European interest in the concept and concluded that "an international conservation reserve is an idea whose time has come." If nations could eventually agree to reduce or eliminate agriculture subsidies, what would be the impact on federal conservation programs that encourage compliance by leveraging conservation against farm program subsidies?

### The tragedy of the commons revisited

In his now classic essay *The Tragedy of the Commons*, Garrett Hardin observed that the tragedy of the commons as a breadbasket is averted by private ownership or its equivalent. The tragedy of the commons, as envisioned by

Hardin, holds that any resource owned in common is over-used and eventually destroyed. As population increased, the commons used in food gathering had to be abandoned. This led to the enclosing of farmland and the restricting of pastures and hunting and fishing areas.

In the United States, the enclosing of the commons occurred early in our agricultural history. However, another factor in the enclosing of the commons plays an important role in land use planning. This factor is the public attitude toward privately owned agricultural land in this country. There is an underlying concern in American society, or any society, that the survival of the nation is founded upon its agricultural resources. American society has a vested interest in and, therefore, views agricultural land, though privately owned, as a form of commons. This philosophy is further enforced by the billions of federal dollars expended on American farm subsidies every year. Moreover, the production sector of American agriculture steadily has exchanged individual ownership rights for public financed subsidies, thus creating, at the least, an administrative commons resulting in ever-increasing public control over agricultural practices on private land.

Agricultural land use planning will continue and perhaps even intensify in the future. The process will be driven by both economic and environmental concerns, as it has been for the past 380 years. The debate will continue between private rights and public welfare, and changes in land use planning no doubt will result from genetic and technological developments, changing social values, and new public interest organizations. But these factors only will reinforce agricultural land use planning already established in the United States. □

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