Wetlands and Agriculture: Private Interests and Public Benefits. By Ralph E. Heimlich, Keith D. Wiebe, Roger Claassen, Dwight Gadsby, and Robert M. House, Resource Economics Division, Economic Research Service, U.S. Department of Agriculture. Agricultural Economic Report No. 765.

Abstract

Society has recently increased the value it places on the services that wetlands provide, including water quality improvement, flood control, wildlife habitat, and recreation. However, owners of wetlands are often unable to profit from these services because the benefits created are freely enjoyed by many. This report examines differences between public and private incentives regarding wetlands. Federal wetland policy has shifted in recent decades—from encouraging wetland conversion to encouraging wetland protection and restoration—in an effort to balance public and private objectives. The report assesses the need for continued wetlands protection policies as the United States approaches achieving the goal of "no net loss" of wetlands.

Keywords: Wetlands, "no net loss," Swampbuster, conservation, restoration

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September 1998

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Summary

The public and private interests in conserving wetlands have been the subject of some contentious debates in recent years. This report analyzes wetland policy questions in the context of competing interests of private landowners and the public. The report examines successes in reducing wetland losses and the prospects for keeping net losses at a low level.

Wetlands preserve water quality, provide habitat for fish and wildlife, prevent erosion, reduce flood damage, and provide aesthetically pleasing open spaces and recreational sites. Society values wetlands, but the private owners usually cannot benefit from them economically unless they are coverted to other uses, such as agriculture or urban development.

People are interested in wetlands because public benefits of wetlands extend well beyond their boundaries. The appropriate balance between society's interest in wetlands and the rights of individual landowners is heavily debated because the outcome determines how wetlands are used, and how the costs and benefits associated with wetland use are distributed. Government seeks to balance these competing claims through a combination of Federal and State regulatory programs and economic incentives.

Former direct and indirect economic incentives for wetland conversion have been eliminated. New incentive programs encourage landowners to make socially acceptable use of wetlands.

Wetland issues have been an important part of agricultural and environmental policy debates at Federal and State levels since the mid-1970's. Over the last 25 years, Federal and State governments have acted to discourage wetland conversion by withdrawing direct and indirect incentives (such as farm program payments), regulating conversion through water quality and other legislation, and funding voluntary programs to restore wetlands. These policy changes are partly responsible for the decrease in wetland conversion, but falling commodity prices during 1982-92 also reduced pressure to convert wetlands, and it is difficult to statistically separate policy and market factors responsible for decreased conversion.

The rate of converting wetlands to other uses has dropped steadily over time. Between first settlement and 1954, more than 800,000 acres per year were converted, while the most recent statistics for 1982-92 show that less than 80,000 acres were converted annually. The share of wetlands converted to agricultural uses dropped from more than 80 percent in 1954-74 to 20 percent during 1982-92.

The United States appears to be reaching its goal of "no net loss" of wetland acreage in the 1990's, conserving and restoring at least as much wetland as is lost. However, eliminating current wetland programs would likely increase wetland conversion rates. Sustaining the "no net loss" goal will be difficult unless programs to conserve wetlands remain in place, greater efforts toward wetland restoration are undertaken, or both. Even if we can sustain "no net loss" of wetland acreage, the challenge of protecting the quality of remaining wetlands from changes in land and water use in upland areas remains.

If farm program payments are eliminated at the end of the 1996 Federal Agricultural Improvement and Reform Act in 2002, the Swampbuster sanction becomes ineffective, exposing remaining wetlands to agricultural conversion. We estimate that, in the short run, 5.8 to 13.2 million acres would be profitable to convert to agricultural production based on expected prices, increasing income for those farmers with wetlands to convert. In the long run, some marginal cropland would drop out of production, leaving a net cropland addition of 2.2 to 5.0 million acres. Increased commodity supplies from the added acreage would depress commodity prices for all farmers, resulting in reductions of farm income of $1.6 to $3.2 billion.

Proposals for compensating wetland owners for wetland regulation could cost from $30 to $180 billion. Costs would vary depending on the extent of wetlands compensated, the timing of compensation payments, and interactions between compensation and the rate of wetland conversion. Agricultural wetlands would require less compensation per acre, but are more extensive than wetlands near urbanizing areas.

Maintaining and improving the quality of remaining wetlands is an important goal because fully functioning wetlands provide services that are valued by society. Changes in soil erosion, irrigation, deforestation, and urbanization in watersheds with significant wetlands indicate that 75 percent of watersheds have most of these four wetland quality indicators degrading. More than 60 percent of wetland watersheds show improvements in water-caused soil erosion, 22 percent had decreases in irrigation, while 87 percent had decreases in forest cover and 96 percent had increased urbanization.

While the exact nature of the policy questions that will arise in coming years remains unclear, it is virtually certain that wetland issues will remain important, complex, and contentious, given the mix they represent between public and private benefits and interests. The analyses in this report provide a solid foundation for continued research and informed policy decisionmaking on wetlands and agriculture in the future.