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Agriculture's traditional function has been the *production of food and fiber* for human nourishment and enjoyment. This function will always be a central consideration in development of agricultural policies. However, in recent years, other functions have begun to take on increased importance in policy circles. From about the mid-1980s onward, agriculture's *environmental* functions have received greatly increased attention in both the United States (U.S.) and the European Union (EU). Moreover, reforms in the EU's Common Agricultural Policy (CAP) that were agreed to in 1999 elevated agriculture's *rural development* function to the same level, conceptually, as food and fiber production.

'Multifunctionality' is the term that has come into use to characterize this expanded policy focus on agricultural functions beyond just production of food and fiber. With respect to environmental functions, particular agricultural systems may have either positive or negative impacts. Positive environmental or ecological impacts include provision of clean water supplies, bird and other wildlife habitat, scenic landscapes, carbon sequestration (to reduce greenhouse gases and mitigate global warming), and flood protection (by wetlands). Examples of negative environmental performance sometimes manifested by agricultural systems include water- or wind-borne soil erosion, odors from manure storage systems, nitrate leached into groundwater, phosphate runoff into lakes from synthetic chemical fertilizers in fields or from manure in feedlots, and decreased biodiversity. Public policies developed on the basis of a multifunctionality framework are intended to enhance the positive environmental impacts and mitigate the negative ones. They also often are intended to enhance rural development by helping to (a) create 'good' rural jobs, (b) preserve as many 'moderately sized family farms' as possible, and (c) generate sufficient farm and rural non-farm income to support local public and private services.

In this *Economics Commentator,* I explain how a **multifunctionality** perspective can clarify public policy alternatives facing 21st Century agriculture. I do this by first briefly reviewing recent experience with this perspective in Europe and then addressing agricultural policy in the U.S.

The growing focus on agriculture's 'multifunctionality' in Europe

Agriculture throughout much of Western Europe has greatly intensified over the past five or six decades, as it has in the U.S. In the United Kingdom (U.K.), the process started with the lead-up to World War II, when the U.K. government encouraged intensification to increase cereal crop plantings and yields in preparation for possible shipping blockades. Policies encouraging intensification continued in the U.K. after the war, and intensification policies also were pursued on the European continent. There was resolve in much of Europe never again to be vulnerable to food shortages in time of war or other disasters. Formal coordination of policies to support farm prices and incomes in Western Europe began with formulation of the CAP in 1962 under the then European Economic Community (EEC), a forerunner of the present EU. As the EEC (now EU) expanded—for example, the U.K. joined in 1973—an ever-larger block of European countries increased agricultural production under the CAP umbrella. Production increased, in part, through adoption of larger-scale mechanized and synthetic chemical-intensive farming practices.

The CAP and its forerunner policies in individual European countries were highly successful in

stimulating abundant food and fiber production. However, this abundance came at increasingly high cost. Export subsidies were used to dump mounting surpluses on world markets. By the early 1980s, these export subsidies accounted for approximately half of all CAP spending. In addition to the financial concerns, there were growing concerns by the 1980s about deteriorating environmental conditions. In much of Europe, the rural landscapes that had evolved in recent centuries prior to World War II have strong aesthetic appeal. Citizens began to voice alarm about the deterioration of many aspects of these landscapes. Concerns were (and continue to be) expressed about losses of bird habitat and biodiversity, disappearance of hedgerows, declines in water quality, and threats to unique local landscapes.

Western European governments reacted to these concerns through enactment of various 'agri-environmental' schemes. The Environmentally Sensitive Areas scheme was the first such scheme in the EU when it was launched in the U.K. in 1986. The Countryside Stewardship Scheme was established in the U.K. in 1991, and several other schemes that focused on a variety of environmental concerns also were launched in the U.K. during the 1990s. Agri-environmental schemes began to flourish throughout Western Europe, though some of the southern countries, such as France, did not act as aggressively at first as did northern ones like the U.K.

By the beginning of the new millennium, major efforts were underway throughout the EU to reduce the contradictions between the (a) new agri-environmental policies and (b) the 'commodity-orientated' agricultural policies that had their roots in the CAP and earlier country-specific intensification policies. Policy dialogue supporting these efforts increasingly rested on the conceptual foundations of agricultural **multifunctionality**. This dialogue is exemplified by the Spring 2001 inaugural issue of EuroChoices—a policy journal launched by European agricultural economics societies—which featured several articles on multifunctionality policy making.

Two specific recent European agri-environmental initiatives that rest on this multifunctionality perspective are worth mentioning here. One consists of the Land Management Initiatives launched in England, beginning in 1999. As an example, the Norfolk Arable Land Management Initiative (NALMI) was designed to strengthen agriculture, both economically and environmentally, in 13 parishes located in one of England's major crop farming counties. An important feature of the NALMI's design is its emphasis on a combined whole-farm and whole-region approach. Using an integrated approach involving farmers and others in local communities, small pilot projects were to be developed that would hopefully enhance economic development, environmental quality, and social progress. I was on sabbatical leave in England at the time (2000) the NALMI was getting started, but I have not seen reviews of its successes or shortcomings thus far.

The other agri-environmental initiative to mention here is France's Contrat Territoriale d'Exploitation (CTE, or Territorial Contract of Farming). The CTE was France's initial comprehensive response to the EU's 1999 elevation of rural development (including agri-environment concerns) to the same level as food and fiber production in the CAP. The CTE involved a single national plan for implementation, but a very devolved pattern of application. The intention was to create local action plans to achieve sustainable management and development based on strong notions of *place*. Farmers in different local areas across France could enter into 5-year contracts, with each contract having two elements: (a) a plan to develop the farm in a way that would directly benefit the farm business; and (b) a plan that addresses the farm's role in helping to meet collective environmental and economic needs of the local area.

Implications for Federal government policies in the U.S.

U.S. soil conservation policies have their roots in 1930s 'New Deal' responses to 'Dust Bowl' and 'Great Depression' conditions. However, broader agri-environmental policies began to be enacted in the U.S. in the mid-1980s, about the same time as in Western Europe. The Conservation Reserve Program (CRP) was part of 1985 agricultural legislation, as were 'conservation compliance' provisions attached to farm price and other supports. In the early 1990s, other agri-environmental program s were added, including the Integrated Crop Management Program, the Water Quality Incentive Program, and the Wetland Reserve Program. Legislation in 1996 combined several agri-environmental programs into a new Environmental Quality Incentives Program (EQIP), and the CRP was continued. The multifunctionality concept made modest inroads in U.S. agricultural policy dialogue during discussions of policy alternatives to replace the 1996 legislation. The resulting legislation—the Farm Security and Rural Investment Act of 2002—did call for an 80% increase in agri-environmental programs over a 10-year period. However, production-related price and income

supports also were continued and expanded, with total expenditure increases over the same time period projected to be nearly four times the increases for agri-environmental programs.

The most significant expansion in agri-environmental funding called for in the 2002 U.S. farm bill was for the EQIP. However, the most significant new form of agri-environmental program created in this bill was the Conservation Security Program (CSP). As described in the legislation, the CSP has features similar to some of those that have existed in U.K. agri-environmental programs, with different payment 'tiers' based on the nature and scope of environmental practice changes. Unlike the CRP, which takes land out of conventional crop and livestock production in order to focus exclusively on environmental goods, the CSP was created for *working lands*. Legislatively, the CSP constitutes an attempt to foster multifunctionality by leaving land in crop and livestock production and providing stewardship payments for the use of practices and systems intended to reduce negative environmental externalities or, conversely, increase positive ones. Although the whole-farm orientation of the CSP's upper payment tiers represents an European-like broadening of U.S. agri-environmental policy, the legislative language implies a more narrow multifunctionality orientation than some of the latest European agri-environmental schemes. The legislative language would allow the CSP to foster bird habitat and biological diversity, as in U.K. agri-environmental schemes; included in the language's eligible practices are fish and wildlife habitat conservation, restoration, and management. However, rural landscape priorities, which have been central to major U.K. agri-environmental schemes, are not particularly evident in other types of conservation practices (nutrient management, integrated pest management, water conservation and water quality management, energy conservation measures, contour farming, etc.) listed in the legislative language as appropriate for CSP contracts. Moreover, the legislative language does not suggest much emphasis on promoting regional social and economic objectives, as supposedly did the previously mentioned Land Management Initiatives in England and the CTE in France. Such an emphasis does not seem precluded, though, as the legislation allows for enhanced CSP payments if participating farmers "address local conservation priorities" or participate in "a watershed or regional resource conservation plan that involves at least 75% of producers in a targeted area".

All of the above discussion refers to the CSP's legislative intent. In practice, implementation of the CSP thus far has been substantially delayed and restricted. The first signup did not occur until this summer, and that signup was restricted to only eighteen watersheds across the country. The U.S. Department of Agriculture (USDA) announced in late August 2004 that 2,188 farmers from those watersheds had been accepted for CSP contracts. At the time of this writing, I have not seen any details on the nature of these initial contracts. However, the Interim Final Rule under which the USDA's Natural Resources Conservation Service administered this first signup contained a variety of criteria and funding restrictions that potentially make the program much narrower in scope than called for in legislative language. It remains to be seen how encompassing of multifunctionality the CSP really is. The implementation rules may be revised for subsequent signups, so the CSP could evolve over time. Of particular interest is whether and how the CSP could be broadened to include rural economic development as one of the functions of agriculture to be strengthened. A graduate student (Jean Michel Basquin) at South Dakota State University presently is completing a Master's thesis in Economics in which he is attempting to draw rural development lessons for the CSP from France's CTE experience.

Also of critical interest to both the EU and the U.S. is whether agri-environmental programs with a strong multifunctionality emphasis can withstand the scrutiny of World Trade Organization (WTO) restrictions. Many policy makers and analysts in the U.S. initially considered the EU emphasis on multifunctionality to be simply a trade barrier in disguise. In fact, many in the U.S. continue to have this view. However, the EU and the U.S. have found themselves increasingly together—*on the defensive*—in WTO negotiations over the past couple of years. There has been an outcry against alleged U.S. and EU 'protectionist' and 'dumping' policies by representatives of developing countries and of economically advanced countries that have already eliminated or drastically reduced their farm support programs. Although U.S. policy makers have not yet embraced multifunctionality as the central basis for agricultural policy, because of these WTO pressures they may increasingly find themselves borrowing from some of the EU agri-environmental policies that they strongly criticized just a few years ago.

For additional information, see:

T.L. Dobbs and J.N. Pretty, "Agri-Environmental Stewardship Schemes and Multifunctionality", Review

of Agricultural Economics, 26, No. 2 (Summer 2004), pp. 220-237.

T.L. Dobbs, "Multifunctional Economic Analysis", Ch. 6 in Agroecosystems Analysis, Agronomy Monograph No. 43, D. Rickerl and C. Francis (eds.). Madison, WI: American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America, 2004, pp. 75-92.

Premier Issue (Spring 2001) of EuroChoices, published by The Agricultural Economics Society and The European Association of Agricultural Economists. Several articles in this issue focus on multifunctionality.

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