

STRENGTHENING THE ROLE OF FARMERS

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Summary

The contemporary limits to the sustainable development of European agriculture have their origins in the industrial model of agriculture, which dominated the second food regime. The limits comprise the internal modernization of agriculture, the role of the state, and external relations between the farm sector and agri-food companies. The processes of globalization in the present third food regime are exacerbating these limits. While the economic, social, and environmental dimensions to the development of a more sustainable agriculture are being addressed through the market and state regulations, the results are uneven across farming regions and with individual farmers. An ecological synthesis model is available to guide a strengthening of the role of farmers in the production of a more sustainable agriculture. But the implementation of the model requires changes in the value systems and behaviors of agri-food companies, the state, food consumers, and farmers themselves.

1. Introduction

Sustainable agricultural development is environmentally stable, economically profitable, productive in terms of maintaining food supplies to the nonfarm population,

and supportive of the rural community. However, agriculture in Europe, and the farm population it supports, is being placed under such pressure that even its short-term sustainability is questionable. On the one hand, agriculture contributes a diminishing proportion to the gross domestic product of most national and regional economies, with parallel reductions in the farm labor force. Consequently, agriculture is being marginalized economically and socially at the national, regional, and farm levels, with implications for rural economy and society. On the other hand, changes in farming practices have had an increasingly damaging impact on the natural environment in Europe, whether interpreted as the pollution and degradation of resources such as water, the soil, and air, the loss of biodiversity in forests, wetlands, and open moor lands, or the gradual erosion of landscape beauty. A third pressure has been added, namely growing criticism of the quality of food produced by European agriculture in terms of food health and safety. Thus, the objective of sustainable development in agriculture is resisted by a number of pressures—economic, social, and environmental—and this discussion examines the potential for strengthening the role of European farmers in resolving them.

2. Agriculture in Economy and Society

Any discourse on sustainable European agriculture must be placed in the context of the national and regional heterogeneity of the farm sector. Heterogeneity exists in agriculture with regard to its structure (e.g., farm size, type, and ownership), the pressures on sustainable development, and the responses to remedial measures: both pressures and responses regarding sustainable agriculture vary in type and strength from place to place and, indeed, through time.

Perhaps the strongest differentiating feature has been the divide in political, economic, and social organization between countries in Eastern and Western Europe. In Western Europe, farmers and farm managers have operated within a variety of capitalist economies, decreasingly regulated by national governments but increasingly regulated, as its membership has expanded, by the supranational European Union (EU, formerly the European Economic Community). Within the EU, the Common Agricultural Policy (CAP) has exercised a powerful influence on an agricultural sector dominated by independent, family labor farms of varying sizes. In Eastern Europe, in contrast, farmers and farm managers have worked within the opportunities and constraints of variously organized, centrally planned, communist economies. The scope for individual behavior has been more circumscribed by state planning and control of farm production and the domination of the agricultural area by large, collective (cooperative), or state-owned farms. Even so, small-scale, private-sector plots of land accounted for a large share of the output of vegetables and livestock products. In Hungary, in the late 1980s, for instance, 75% of fresh vegetables was produced from small-scale private farms. But there has been significant variation among the Central and East European Countries (CEECs) in their farm-size structures: for example, collectivization was never well-developed in Poland and the former Yugoslavia, and private farms dominated the agrarian production system.

With the collapse of communist political regimes in the 1990s, capitalist principles of economic and social organization have been permeating Eastern Europe, for example

with the return of farmland to private ownership, either as individual farms, privatized state farms, joint-stock companies, or farmer cooperatives. In Bulgaria, Romania, and Estonia, for instance, there has been an attempt to return land to the original owners or their heirs, whereas in Hungary, since 1989, all previous owners have been provided with vouchers to purchase land or use for other purposes. In addition, the agri-inputs and food processing sectors have been opened to global competition. Initially, state subsidies to agriculture and consumer subsidies on the price of food were removed, for example in Poland in 1989, Hungary in 1990, and Bulgaria in 1991. The effect was to reduce agricultural production levels, disrupt food supply systems to urban areas, and exacerbate the economic difficulties of the CEECs as net importers of food. Consequently, state subsidies have been reintroduced in many countries to protect the farm sector from the negative impacts of economic reforms; in particular, as farm incomes have declined, political pressures have led to the re-emergence of protectionist agricultural policies (e.g., import duties and licenses in Poland in 1992). Thus, a degree of convergence is taking place between Western and Eastern Europe in the political, economic, and social organization of agriculture, although agriculture still occupies a more central role in the economies and household expenditures of the CEECs (Table 1).

Country	Employment (%)	Gross Domestic Product (%)	Food in household expenditure (%)
Germany	2.9	0.8	15.2
Greece	20.3	6.7	36.6
Italy	6.7	2.7	19.3
Spain	8.6	3.5	19.7
UK	2.0	0.8	19.9
(EU)	(5.1)	(1.7)	(18.2)
Bulgaria	18.0	12.8	nd
Czech Republic	6.0	3.0	31.2
Hungary	8.6	6.6	21.8
Poland	21.3	5.5	nd
Romania	34.6	19.0	57.5
(CEECs)*	(21.1)	(6.8)	(nd)

* CEECs: Central and East European Countries

Table 1. Agriculture in the economy of selected European countries, 1996 (abstracted from *Agricultural Statistics of the European Commission*)

National and regional heterogeneity can also be observed within the countries of Eastern and Western Europe in such features as agriculture's place in economy and society, the natural resource base (e.g., climate, soils, and topography), level of technical development, farm-size structure, and farm production (e.g., milk, cereals, vegetables). For example, agriculture varies in its contribution to gross domestic product and employment (Table 1) at both national and regional levels. In countries such as the UK, agriculture employs approximately 2% of the workforce and contributes less than 1% to

national gross domestic product (GDP). In contrast, agriculture remains more significant in the economy and society of countries such as Greece, Poland, and Romania. In addition, most indicators of the relative importance of agriculture show a falling trend. For example, agriculture is no longer the most significant sector in a majority of regional economies, even accounting for multiplier effects, having been supplanted variously by manufacturing, tourism, or the service sector. The proportion of the final food price attributable to the farm sector is also in decline, with the retail sector claiming a rising share. In politics, the significance of the rural vote has fallen in step with the declining farm population, and this feature is often alluded to in explanations of the falling level of state protection and subsidies for the farm sector. At a regional level, heterogeneity can be illustrated by Germany: sharp contrasts exist between the extensive pastoralism on the high mountains and meadows of southern areas, the intensive crop production from fertile soils in the center, and the highly specialized and intensive horticultural production, including viticulture and hops, in the valleys of the south and southwest of the country.

Country	% holdings in each farm-size group (ha)				
	1-5	5-10	10-20	20-50	>50
Germany	31	15	18	23	13
Greece	75	15	7	2	0.4
Italy	77	11	6	4	2
Spain	57	16	11	8	7
UK	14	12	15	24	33
(EU 12)	(58)	(13)	(10)	(11)	(7)

Table 2. Variations in farm-size structure in selected European countries, 1993
(abstracted from *Agricultural Statistics of the European Commission*)

Country	Wheat	Barley	Fresh fruit	Fresh vegetables	Milk	Beef	Pigmeat	Sheepmeat
Germany	5	3	6	3	25	11	17	0.4
Greece	3	0.3	9	17	12	3	3	8
Italy	4	0.3	7	13	11	9	6	0.6
Spain	3	4	7	14	8	6	13	4
UK	11	4	2	8	24	8	9	6
(EU)	(5)	(2)	(5)	(9)	(18)	(10)	(12)	(2)

Table 3. Agricultural production in selected European countries, 1996
(% share of products in agricultural production) (abstracted from *Agricultural Statistics of the European Commission*)

Heterogeneity can also be identified at the level of individual farms. This is manifest, for example, in farm size (Table 2) and farm type, with consequences for the economic viability of farm businesses. Smaller farms dominate the agricultures of countries such as Italy and Greece. While they have a greater output per hectare of land, the economic

efficiency of production and farm income decreases in step with the area or business size of the farm. Thus, countries with large-farm structures, for example the UK, would have a competitive advantage in the production of farm products within an unregulated market. Table 3 uses the surrogate of farm products to illustrate differences in farm type. For example, dairy farms are more significant in countries such as the UK and Germany; whereas fresh vegetable farms are more characteristic of Italy and Spain. Variation also exists among farm families, for example according to the number of people in the family, the ages of the male and female heads of the household, the level of agricultural training and skills within the family, the presence or absence of a successor to the farm business, and the earnings from an additional income outside the farm sector (other gainful activity—OGA). These observations lead toward typologies, or classifications, of farms and their farm families, and thus to classifications of regional types of agriculture, although relevant research has been conducted mainly in the context of Western Europe. Table 4 shows one such farm-based typology using the dynamic concept of paths of farm business development, as applied to a number of marginal farming areas within the EU.

Path Type	Northern Pennines	Highlands of Scotland	West of Ireland	Central Greece	Massif Central
1. Industrializing	13	12	3	2	33
2. Traditional	45	34	40	58	45
3. OGA+	33	50	34	54	34
4. Diversifying*	29	18	11	20	0
5. Winding Down	6	24	14	4	0

A random sample of farms; a farm can be placed in more than one typological group

+: OGA: Other Gainful Activity

*: alternative (diversified) farm enterprise

Table 4. Paths of farm business development in selected Less Favored Areas of the European Union (% farms in each path type)# (adapted from Bowler 1999)

Over time, the greatest reduction has taken place in the proportion of farm businesses on path 2 (traditional), with those on path 1 (industrializing) accounting for a rising share of the farmland area. Not only do individual farms provide a varying context for examining the pressures on sustainable development and responses to remedial policy measures, but also regions differ in their aggregate composition of pathway choices within which the issue of sustainable agriculture can be placed. Some regions may be characterized as comprising an industrial agriculture, for example the Paris Basin, whereas others maintain a traditional agriculture, for instance the Alentejo of Portugal.

Thus, the context for the development of sustainable agriculture varies significantly within Europe with regard to individual countries, regions, and farms. The confines of space do not permit a further systematic development of this theme: it is possible only to illustrate the varied contexts for the role of farmers in agricultural sustainability (see

also *Promoting Sustainable Agriculture and Rural Development and Transfer to and within Europe's Rural Areas*).

3. From Industrialization to Globalization in Agriculture

An historical dimension can help to trace the origins of the problematic nature of sustainable development in European agriculture. In this respect, three time periods, or food regimes, are commonly recognized in the development of capitalist agriculture: pre-WW II; from the 1940s to the 1970s; and from the 1980s to the present (Table 5). Each regime is characterized by particular farm products, food trade structures linking production with consumption, and regulations governing capitalist accumulation. Summarizing, the first food regime was based on an extensive form of capitalist production under which agricultural exports from white settler countries—in Africa, South America, and Australasia—supplied unprocessed and semiprocessed foods and materials to metropolitan states in North America and Western Europe. The second food regime, by comparison, can be summarized by the term productionist (or productivist), in other words a period characterized by an intensive form of capitalist production relations and involving the modernization and industrialization of farming. This regime incorporated the following key processes: the restructuring of agricultural sectors by agri-food companies to supply mass markets; the development of durable food and intensive meat commodity complexes; extension of the state system to former colonies (decolonization); organization of the world economy under US geopolitical hegemony; and strong state protection for agriculture. The final form of the third food regime, which has been emerging from the international farm crisis of the 1970s, is still far from certain, but a number of often contradictory structures and processes have been identified. These include: the increased global trading of food; consolidation of capital in food manufacturing; new biotechnology; consumer fragmentation and dietary change; and declining farm subsidies (deregulation). Both Eastern and Western Europe are now joined in these contemporary pressures, which contest the attainment of sustainable agriculture. The pressures have their origins in the second food regime but are now being shaped by processes operating in the third food regime.

Characteristic	First regime	Second regime	Third regime
Period	1870–1900s	1920s–1980s	1990s on
Products	grain, meat	grain, meat, durable food	fresh, organic, reconstituted
Capital	extensive	intensive	flexible
Food system	exports from settler countries	national restructuring of agriculture, mass markets	global restructuring of agriculture to link production with consumption
Features	colonization, rise of nation states	decolonization, forward and backward linkages in the food chain, consumerism	globalization of production and consumption; failure of national agri-food companies; green consumers

Table 5. Capitalist food regimes (adapted from Ilbery 1998)

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Bibliography

Bowler I.R. (1999). Endogenous Agricultural Development in Western Europe. *Tijdschrift voor Economische en Sociale Geografie* **90**, 260–71. [This is an investigation of the differential development of farm diversification in Less Favored Areas of the EU.]

Bowler I.R. (ed.) (1992). *The Geography of Agriculture in Developed Market Economies*, 317 pp. London: Longman. [This is a comprehensive account of contemporary changes in agriculture in advanced economies.]

Bowler I., Bryant C. and Nellis M.D. (1991). *Contemporary Rural Systems in Transition: Agriculture and Environment*, 277 pp. Wallingford: CAB International. [This is a collection of research papers on agricultural change in the US, Canada, and the UK.]

Brouwer, F., Thomas A. and Chadwick M. (eds.) (1991). *Land Use Changes in Europe*, 528 pp. London: Kluwer. [This is a collection of research papers on the impact of socioeconomic and climate changes on agriculture in Europe.]

Carter F. and Turnock D. (1993). *Environmental Problems in Eastern Europe*, 291 pp. London: Routledge. [This is a country-by-country account of the main environmental problems encountered in Eastern Europe.]

Dent J. and McGregor M. (eds.) (1994). *Rural and Farming Systems Analysis: European Perspectives*, 361 pp. Wallingford: CAB International. [This is a collection of research papers on the meaning and application of farming systems analysis, mainly in Western Europe.]

Hoggart K. (ed.) (1992). *Agricultural Change, Environment and Economy*, 348 pp. London: Mansell. [This is a collection of essays on a variety of contemporary agricultural themes.]

Ilbery B., Chiotti Q. and Rickard T. (1997). *Agricultural Restructuring and Sustainability*, 348 pp. Wallingford: CAB International. [This is a collection of research papers on agricultural change in the US, Canada, and the UK.]

Ilbery B. (1998). *The Geography of Rural Change*, 267 pp. London: Longman. [This is a student textbook covering the wide range of contemporary rural issues in developed countries.]

Kronert R., Baudry J., Bowler I. and Reenberg A. (1999). *Land-use Changes and their Environmental Impact in Rural Areas in Europe*, 261 pp. UNESCO Man and Biosphere Series 24. New York: Parthenon Publishing. [This is a collection of research papers on the causes and consequences of land-use change in a variety of countries in Eastern and Western Europe.]

Laurent C. and Bowler I. (eds.) (1997). *CAP and the Regions: Building a Multidisciplinary Framework for the Analysis of the EU Agricultural Space*, 271 pp. Versailles: INRA. [This is a collection of research papers on the combination of socioeconomic and natural environmental data sets and the interpretation of results of analyses on the effects of the Common Agricultural Policy on agriculture in the regions of Western Europe.]

Le Heron R. (1993). *Globalised Agriculture: Political Choice*, 220 pp. Oxford: Pergamon Press. [This is a largely theoretically informed book on the contemporary formation of global food networks.]

Pennington M. (1996). *Conservation and the Countryside: by Quango or Market?*, 68 pp., IEA Studies on the Environment 6. London: Institute of Economic Affairs. [This is a polemic advocating a market-led rather than state-interventionist solution to agri-environmental problems.]

Swinnen J.F. (1994). *Policy and Institutional Reform in Central European Agriculture*, 283 pp. Aldershot: Avebury. [This is an analysis of agricultural changes in East European agriculture as a consequence of changes in political organization.]

Traill B. (1989). *Prospects for the European Food System*, 325 pp. London: Elsevier. [This is an economic analysis of the changing agri-industrial context of mainly West European agriculture.]

Biographical Sketch

Professor Ian Bowler is in the Department of Geography, University of Leicester, England. He is the author of several books and numerous research papers on agriculture in advanced economies, and he was Chair of the International Geographical Union's Commission on Sustainable Rural Systems.