ENGLISH NATURE

Sustainable development and agriculture

No. 278 - English Nature Research Reports

working today
for nature tomorrow

English Nature Research Reports

Number 278

Sustainable Development and Agriculture

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ISSN 0967-876X

Executive Summary

The purpose of this paper is to:

- examine the implications and the meaning of sustainable development for agriculture with particular reference to nature conservation;
- define the broad parameters of what English Nature would consider to constitute sustainable development in agriculture;
- examine the policy framework required to secure such objectives for sustainable development and the opportunities/constraints that EN is likely to encounter in so doing;

The paper opens with a discussion of the conceptual issues which the notion of sustainability throws up. It is suggested that a number of different interpretations of the broad Brundtland definition are current and that these relate to different politico-economic positions. Sustainable development is thus an inherently contested discourse. The various ways in which objectives for sustainable development are defined and determined is a reflection of such differing interpretations.

The current politico-economic context is described as one in which sustainable development discourse is seen to be a component of the current trend towards 'globalisation'. Economic orthodoxy perceives globalisation to be complementary to sustainable development, including its environmental dimension. This position may be described as 'weak sustainability'. It is argued that environmental sustainability and economic globalisation are structurally antithetical and that the latter should be subject to environmental interventionism if 'strong sustainability' is to be secured.

The current status of sustainability in agriculture (in England) is assessed and is found to fail against most criteria. An assessment of current objectives and proposed policy responses to such deficiencies (as contained in the UK Sustainable Development Strategy) is made and found in many respects to be wanting.

The document goes on to define the broad objectives for sustainability which will be required for a whole countryside approach to succeed. It is suggested *inter alia* that a significant shift towards mixed/organic farming will be required if the full range of sustainability objectives is to be secured.

The policy framework which is likely to be required for 'strong sustainability' is outlined. In order to secure desired outcomes, EN must engage in the current debate over the future of the CAP, encapsulated in the notion of Integrated Rural Policy. The next round of WTO negotiations will be the forum in which the basic configuration of a future CAP will be fought out. As currently constituted, the objectives of the WTO will serve to inhibit and undermine sustainability rather than enhance it.

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Chapter 1. Sustainable development and agriculture - conceptual issues

We have entered a new phase of environmental concern - the 'sustainability' phase. This draws on a new concern for the survival of natural elements such as atmosphere, climate and biodiversity - the concern is with renewable resources being destroyed at an accelerating rate. There is growing recognition that the demands which society makes on the environment cannot be met indefinitely in current form and scale without endangering human lives and wellbeing now and in the future. A new approach to 'development' is therefore needed, based on a reassessment of humanity's relationship with the environment. Sustainable development appears to offer that approach. Rather than regarding the environment as possessing an infinite exploitative and assimilitative capacity, sustainable development introduces the notion of environmental capacity or limits.

Environmental capacity is a complex concept. Nevertheless, expressed in its simplest form, it asserts that there are limits beyond which the environment cannot absorb the effects of human activity, whether extractive or depositional. Environmental capacity is therefore a key indicator of the ability of the environment to support human and other life.

Environmental capacity may take the form of functional limits or social/cultural limits. Functional limits are those where the natural or biological resources functionally underpin (ie are physically necessary to) the well-being of a socio-economic system (eg soils, water and atmosphere). It is possible, at least in theory, to describe such limits objectively. Similarly, it is possible, at least in principle, to define sustainability objectives for such functional resources objectively.

For many features of the environment, however, environmental capacity can be defined meaningfully only according to cultural criteria. In other words, there are socio-cultural limits to what society will tolerate in the form, for example, of agricultural damage to wildlife or landscapes, irrespective of any relation to the productive sustainability of a farm system. Nature conservation in this country, for example, is undertaken largely for cultural rather than for environmentally functional reasons. Although it may be in principle possible to define objectively minimum viable populations/areas for species/habitats and to weight conservation priorities according to (semi) objective criteria, in practice objectives for biodiversity conservation tend to be informed by cultural desiderata.

In fact all definitions of environmental capacity involve a degree of judgement. Even in respect of more 'functional' limits, the 'safe' level of greenhouse gas emissions, for example, are determined by a mixture of objective data and value judgement. Even the determination of functional physical capacity therefore requires decision makers to draw on political and cultural values (eg acceptable levels of risk) in deciding how to interpret scientific data.

More fundamentally, however, different groups in society also have different perceptions of environmental costs and of the acceptability of measures needed to remedy them. The interpretation of environmental capacity will be strongly influenced therefore by particular socio-political contexts and interests. This has two important implications: firstly, different methodologies or rationales will tend to be employed by different groups in society to determine environmental capacities. For example, neo-classical economic theory attempts to determine the 'value' of (public) environmental goods and services by imputing to them a price arrived at through a variety of surrogate market techniques. Such techniques are used to

determine the (Pareto) optimal level of trade-off between development and environmental conservation. Such a methodology for assessing what is sustainable is at variance, however, with the views of those in society who wish to employ objective environmental criteria or qualitative cultural criteria for this purpose or for problematising the character of 'development' itself. Secondly, acknowledgement of the existence of environmental capacities, defined by whatever criteria, does not of itself ensure that such capacities are respected in practice. Particular political configurations may preclude the enforcement or adoption of measures for the production of alternative outcomes.

Although the issues surrounding environmental capacity are thus complex and thresholds may be difficult to specify in quantitative terms, the underlying implications are clear. Environmental capacity represents an 'envelope' within which economic activities like agriculture should normally take place. If the idea of environmental limits has meaning, it delineates real constraints within which society should live.

Agriculture occupies a central place in the sustainability debate. Its environmental impact stems from the sheer scale of farming as well as the way in which it is practised. Agriculture occupies a far greater proportion of the land surface than any other economic activity and it is both a creator and destroyer of environmental assets and resources.

The position of agriculture in the sustainability debate is also an exceptional one because of the nature of its dependence on natural resources (land, soil, clean water and air etc.) and natural processes (propagation, growth, recycling etc.). This distinguishes it from most other economic activities.

It is possible to identify three principal distinct, but linked, dimensions of environmental sustainability as it relates to agriculture in England:

- **The prerequisites of sustainability**

  The sustainability of agriculture is governed by developments in other sectors, often beyond its control, which impinge on the resources available for food production.

- **Productive sustainability**

  Because agriculture depends on natural resources, natural processes and a genetic base in order to produce food, it is essential that it sustains them. If instead, it destroys or erodes this base, then agriculture can be regarded as unsustainable, even if the damaging effects can be offset temporarily by the greater use of chemical and other inputs. Agriculture can be the source of adverse environmental impacts felt beyond the farm itself, for example through its consumption of water, energy, and other resources and through emissions of various pollutants which enter the wider environment, especially nutrients, agrochemicals, wastes and gaseous emissions which pollute water, soils and air. If farming has an effect of this kind on the wider environment which exceeds environmental capacity, it is not possible to regard it as sustainable.

- **On-farm sustainability**

  Agricultural practices have an impact on the immediate environment within the farm itself, for example, wildlife, landscape and heritage. For example, many species have adapted to semi-natural farmed habitats and much of the rural landscape upon which society places value has been created by past farming practices. Even if agriculture

achieves productive sustainability, therefore, it cannot be regarded as sustainable if it causes the destruction of the above elements of the farmed environment.

Sustainability is not a purely environmental concept, however. There are additional socio-economic dimensions.

- **Socio-economic sustainability**

  Farmers require adequate incomes to survive and to play their part in building sustainable rural environments and economies. The politico-economic character of agriculture is a powerful influence on the overall complexion of rural areas, determining the degree to which the sector is either detached from, or a part of, local economies and environments. Socio-economic concerns cannot be divorced from those of an environmental kind. A sustainable countryside must include concerns for both the environmental and socio-economic dimensions. The hitherto contradictory relationship between these two dimensions is grounded in a particular, not a universal, model of economic development, which we may term 'productivism', embodied in 'weak sustainability' (see next chapter for definition). It is possible to propose an alternative model of development, embodying 'strong sustainability' (see next chapter for definition), in which these two dimensions are complementary and mutually reinforcing. A major task in future policy formulation should be to strengthen and better articulate the potentially complementarity between the environmental and socio-economic spheres.

The nature of these four dimensions of sustainability is influenced fundamentally by the character of the politico-economic system in which they are embedded, a system which is embodied in a particular configuration of agricultural and rural policy. Many of the specific outcomes under these dimensions are the product of structural (or generic) causes rooted in the political economy of agri-food policy. It is to this structural, politico-economic background to the sustainable development debate that we now turn.

Chapter 2. The political economy of sustainable development and agriculture

Environmental concern does not exist in an ideological vacuum. Rather, it arises out of a particular set of social relations and, in turn, reacts back reflexively upon those relations. If we are to understand the nature of sustainable development discourse and its contradictory character, we need firstly to understand the politico-economic context that has afforded the conditions for its emergence.

It is possible to place the rise of sustainable development discourse in a conjuncture marked by a shift in the organisation of the capitalist world economy from a regime of 'developmentalism' (or 'productivism') to one of so-called 'globalisation'. The 'developmentalist' regime was a post-war construct through which attempts were made to stabilise the world capitalist economy. As an ideal, this regime subordinated trade to systems of national economic management, anchored in strategic economic sectors such as agriculture. Together international and national institutions regulated monetary and wage relations to stabilise national capitalism within a liberal trade regime. Developmentalism was founded on mass consumption realised through the growth of disposable incomes and increasingly global markets. A critical set of norms and policies maintained a congruent relationship between the growth of production and consumption thereby helping to sustain and legitimate high levels of economic growth. These comprised such monopolistic forms of regulation as Keynesian economic management, the welfare state and collective bargaining, achieving a sectoral and social articulation between production and consumption. Within agriculture, the stimulus to production typically assumed the form of protective trade policies supported by input subsidies, investment grants, special credit and fiscal incentives.

From the early 1970s, however, developmentalism began to encounter contradictions. Rising wages, a decline in productivity, over-capacity, over-production and *increasing environmental disbenefits* became salient symptoms of this crisis. The structural cause of this crisis originated in significant rises in the costs of labour, natural resources and the incipient internalisation of environmental externalities, thereby placing in jeopardy continued economic growth. In this new context, Keynesian instruments now became inflationary and tended to exacerbate, rather than ameliorate, the crisis. The imperative for the world capitalist economy to reinvigorate productivity and profitability manifested itself in the emergence of a new global regime of accumulation in which new production locations, markets, products and modifications to labour conditions become prominent objectives for capital. The developmentalist model of national economic regulation was replaced, as an ideal for capital, by the model of *globalisation* premised on free-market ideology of 'deregulation' (or 'neo-liberalism').

The economic crisis which gave rise to globalisation was thus accompanied by an environmental crisis (both 'objectively', but, more particularly, in terms of social perception). The interaction of these two crises led to the emergence, during the course of the 1980s, of the discourse of sustainable development which sought to re-appraise relations between economic growth and the environment/society. At base, sustainable development discourse arose as the shortcomings of the developmentist paradigm, and its underlying ethos of inexorable technological progress, were revealed. Developmentalism itself, through the development of disposable incomes and corporatism, generated a new constituency whose concerns were, on the one hand, no longer principally those of social equity nor, on the other,

were tied immediately to the demands of capital accumulation, but were directed rather towards the increasing environmental disbenefits of mass consumerism itself.

Unsurprisingly, there developed over this period a spectrum of opinion concerning the nature of the relationship between economic growth and the environment/society, a variation in view which reflected the differing positions of interest groups and classes in society. Such opinion has extended from the free trade advocacy of transnational capital, with its equation of unfettered trade with environmental and social good, through social democratic interventionism (espousing traditional developmentalism), with its concern to mitigate the environmental and social diseconomies of capital accumulation, to more radical environmentalism/socialism, which considers orthodox models of economic growth, and neo-liberalism in particular, to be the primary cause of, rather than solution to, environmental and social unsustainability.

Within the European context, as in the developed world generally, agriculture still sits very much within the developmentalist/productivist paradigm, a fact exemplified nowhere more clearly than in the continued existence of the EU's Common Agricultural Policy (CAP). This post-war 'productivist' policy framework, which has informed processes of agricultural intensification and specialisation, has, in common with developmentalism in general, encountered rising economic, environmental and social contradictions during the course of the last two decades. The CAP has represented an environmental 'engine of destruction' in Europe's countryside. At the same time, the rise of globalisation, as neo-liberalism, has presented an additional economic challenge to the CAP. Increasing demands for 'free trade' in agricultural commodities primarily from the USA, and embodied in the Uruguay Round GATT Agreement, now impose increasing constraints on the CAP as a mode of productivist interventionism. Such 'external' economic contradictions are related to the 'internal' contradictory dynamic of the CAP since, with production outstripping demand, not only has the CAP encountered budgetary crises, but its need to subsidise exports has run into opposition from the USA.

As elsewhere, these forces, globalisation, on the one hand, and environmentalism/localism, on the other, provide a new ideological conjuncture within which attempts to address economic-environmental relations are framed. It is not infrequently stated, however, that, since both positions have a strong interest in the radical reform of the CAP, they are therefore complementary. Such apparent complementarity can be shown to be of a superficial kind, however.

There is little doubt that the politically dominant position within this conjuncture is globalisation/neo-liberalism, founded on the tenets of neo-classical economics. Key features of this position are as follows:

1. an emerging consensus among policy makers favouring 'market-based' rather than 'state-managed' development strategies;

2. centralised management of global market rules by the G-7 states;

3. implementation of these rules by multilateral agencies: the World Bank, the IMF and the WTO (World Trade Organisation);

4. concentration of market power in the hands of transnational corporations and financial power in the hands of international banks;

5. subordination of former Second and Third World states to these global institutional forces;

6. subordination of First World states to these global institutional forces - (a subordination as yet by no means as severe as in the former two worlds, in part because First World societies have more institutional and political coherence, so that a smaller proportion of their population is marginalised.)

Despite many critiques of the assumptions on which it is based, the view still prevails amongst many policy makers that freer trade can unequivocally be associated with the greater environmental and social good. On this argument, everyone benefits from the additional production and consumption that is possible when trading nations exploit their so-called 'comparative advantages'. Liberalisers place their faith in perfectly operating markets and attack trade protection as a source of resource misallocation. In other words, free trade and competition assure the optimal allocation of resources.

This neo-classical axiom permits, however, a rather convenient conflation of what are actually quite distinct economic and environmental/social meanings and objectives. When deconstructed, the actual meaning of this axiom emerges as follows: that the monetary cost of production should be minimised and that capital should be invested wherever cost/profitability is least/greatest. The axiom suggests, in other words, that the environment should be exploited at least cost to capital. Neo-liberal proponents thus fail, when calculating the putative benefits of free trade or the market determination of land use decisions, to account for (i.e. internalise) the full or true environmental/social costs of production. Critics have thus argued for a revised understanding of comparative advantage and its determinants, and a definition of sustainability on the basis of objective and/or qualitative ecological and social criteria.

'Sustainable development' is thus invoked, by its neo-liberal proponents, as an organising principle for globalisation. As such, however, it may be described as a (very) 'weak' interpretation. 'Weak' sustainable development indeed represents the ideological corollary of globalisation, premised on the global valorisation of natural resources. Through a multiplicity of valuation techniques embodied in the neo-classical discipline of environmental economics, the *previously* exterior domain of 'nature' (i.e. socially 'owned' or managed resources and 'public goods'), in tandem with the structural process of commoditisation, is ideologically redefined and subsumed within capital (that is, literally and metaphorically subject to private enclosure) as a productive asset henceforth subject to 'rational' management.

A variant of 'weak sustainability' is that espoused pragmatically, if not systematically, by First World states as an outcome of the continuing strength here of governments as economic managers and the political-economic incorporation of their populations through mechanisms such as the welfare state. The position recognises, either implicitly or explicitly, that the operation of the free market does not secure automatically, or even theoretically, the objectives of environmental sustainability. At a minimum, the latter need to be secured through market intervention via regulation, taxation or direct subsidy. The stated aim is commonly to secure an appropriate 'balance' between (what in this paradigm are conceived to be) the divergent objectives of orthodox development and environmental sustainability, a balance often skewed, however, in favour of the overriding imperative of economic growth. This developmentalist variant of weak sustainability typically embodies a mitigatory, or environmental managerialist, approach to ecological problems.

'Strong' sustainable development differs radically, however, from those competing weak interpretations outlined above. 'Strong' sustainability problematises the current form of

economic growth, whether developmentalism or globalisation, by questioning its *structural* compatibility with the pursuit of environmental sustainability. It suggests that environmental sustainability cannot be secured without, firstly, understanding and addressing the socio-economic factors that generate biodiversity decline and inhibit sustainability objectives; secondly, identifying and seeking to implement socio-economic policies which might underpin environmental sustainability. Strong sustainability then is less about managing current orthodoxies of economic growth and other policy embodiments than about identifying and addressing the structural bases of environmental 'unsustainability'. The re-integration of economic and environmental policy propounded by strong sustainability is one founded therefore not on the hegemony of neo-classical economics, with its equation of capital accumulation with environmental good, but rather upon objective or qualitative environmental definition of sustainability and the satisfaction of human needs within the limits delineated by that definition. This presupposes strong intervention in, and regulation of, the market (and, perhaps more pertinently, changes in the social relations of which the market is an expression) at a variety of levels (international, state, regional/local), premised in turn upon informed decision-making mandated by 'deliberative democratic' processes.

These tensions between 'weak' and 'strong' sustainability are exemplified by UK Government policies in respect of agriculture and sustainability. The previous Government's initial response to the international challenge to establish a policy framework to promote environmentally sustainable agriculture is contained principally in the document *Sustainable development: The UK Strategy* and *Biodiversity: The UK Action Plan*. Both documents stem from commitments entered into at the Earth Summit in 1992.

Sustainable Development: The UK Strategy outlines a framework for sustainable agriculture and identifies aims and objectives that the previous Government proposed to pursue to secure an 'environmentally sensitive agriculture'.

Figure: **The UK Governments view of sustainable agriculture**

"To meet the needs of sustainable development, agriculture needs to balance [*sic*] a number of aims:

- to provide an adequate supply of good quality food and other products in an efficient manner;
- to minimise consumption of renewable and other resources, including by recycling;
- to safeguard the quality of soil, water and air;
- to preserve and, where feasible, enhance biodiversity and the appearance of the landscape. . . ."

(HM Government, 1994a, p. 106).

The objectives for agricultural policy identified in the Sustainable Development Strategy reflect the previous Government's belief that sustainable development practices would be encouraged effectively through reforms aimed at deregulation and exposure of farming to the rigours of the market, that is the advocacy of neo-liberal globalisation. The importance attached to reducing price support and the belief that this in itself will bring environmental benefits suggests, however, a rather simplistic view of the relationship between agricultural policy and the environment. Increasing market orientation of agriculture is likely to encourage further farm adjustment and restructuring in the form of specialisation and

intensification (see chapter 5 for further details), and, while some contingent benefits might be anticipated, significant adverse environmental consequences are more likely.

Figure: **Objectives of Government Agricultural Policy**

"For its part, the Government will encourage sustainable agricultural policies and practices by pursuing the following aims and objectives:

- to work for more liberal world trade in agricultural products in the interests of more rational use of resources, and to remove current international trade distortions (a perfect statement of 'weak sustainability')
- to work for further reforms of the CAP and, in particular, to reduce the high levels of support and the resulting pressures on the environment and to integrate environmental considerations fully into the CAP.
- to encourage an internationally competitive and environmentally sensitive UK agriculture, which has regard to the commitments in the Biodiversity Action Plan
- to protect the best and most versatile agricultural land from development
- to minimise the environmental impacts of agricultural wastes, particularly on water quality and emissions to air
- to minimise the use of pesticides through the rigorous approval and review of products, through guidance to users and through research and development
- to facilitate access by farmers to reliable and up-to-date information on good environmental practice based on sound science, and to encourage them to act on these findings.

While the UK Sustainable Development Strategy identifies the need to 'minimise consumption of non-renewable and other resources; 'safeguard the quality of soil, water and air'; and 'enhance the appearance of the landscape', these are not clearly reflected in the policy aims and objectives. In particular, the strategy speaks of encouraging 'environmentally sensitive agriculture' rather than sustainable agriculture. The difference is significant since the two terms are not necessarily the same. An environmentally sustainable form of agriculture must, by definition, be environmentally sensitive but an environmentally sensitive form of agriculture might not be sustainable.

By contrast, the Biodiversity Action Plan acknowledges agriculture as a major factor in biodiversity conservation. Farmers and landowners are identified as key partners in implementing measures to protect biodiversity.

The Plan suggests a number of opportunities to enhance biodiversity through agricultural practices which:

- conserve and enhance the national diversity of flora and fauna, habitats, landscapes, historical features and local character;
- minimise pollution from waste and reduce stocking densities;

- reduce the need for fertilisers and pesticides;
- encourage the use of traditional livestock breeds and crop varieties;
- employ traditional skills and practices;
- introduce greater agricultural diversity on the farm;
- maintain hedges etc;
- withdraw some areas from agriculture altogether.

Some of these 'opportunities' represent a step further than the measures outlined in the Sustainable Development Strategy and some are translated into targets. For example, the Biodiversity Action Plan contains commitments to:

- support organic farming and encourage more extensive livestock farming in selected areas;
- continue support measures for hedgerow management and restoration in England and Wales;
- enforce strictly regulations controlling the use and storage of environmentally damaging pesticides and fertilisers; and
- expand general research on environmental management.

The BAP also recognises the concept of carrying capacity but only in relation to livestock farming.

Further insights into the previous Government's position on agriculture and the environment can be found in the report of the Minister's Review Group on CAP reform (MAFF CAP Review Group 1995a and b) and the Government's White Paper *Rural England* (DoE & MAFF 1995). The report from the CAP Review Group argues that a single policy is no longer appropriate to pursue separate agricultural, social and environmental objectives. It concludes that further CAP reform is needed 'towards the market via reductions in end-price and other production-related support' and a removal of supply controls (MAFF CAP Review Group 1995a, p.6). The principal aim of policy must be 'to encourage farmers to produce according to market demands resulting in more viable businesses and a more efficient farm structure while at the same time dealing with any problems of market failure directly' (*ibid*).

The Review Group's report acknowledges the difficulties of assessing the environmental impacts of removing production-related support, arguing that these will be both positive and negative. It also acknowledges the need to provide direct financial support to fulfil specific socio-environmental objectives. Importantly, if somewhat optimistically, it argues that reforming the CAP along the lines proposed would place environmental protection and enhancement at the heart of policy, instead of on the fringe' (*ibid*).

The conclusions of the Review Group are broadly reflected in the White Paper *Rural England*. This argues that the goal of safeguarding and enhancing the rural environment should be at the heart of a reformed CAP (DoE and MAFF 1995, p. 53). This is a goal which sits somewhat uneasily with the White Paper's vision of an 'efficient, prosperous and outward-looking agricultural industry, able to compete in increasingly open world markets . . . and paying due

regard to the environment' (*ibid*). The emphasis is very much on moving UK agriculture towards world markets and meeting environmental objectives through direct payments, advice and, as a last resort, regulation.

The previous Government's response to action needed for sustainable action, as expressed in these documents, is in many instances only partial and in several respects weak:

- it contains no mention of a national or EU policy framework to explore the environmental implications of various policy scenarios;
- there is a commitment to reduce use of pesticides but less clear reference to reducing the application of artificial fertilisers or reducing total nutrient load on the environment caused by agriculture;
- although the Sustainable Development Strategy identifies the need to safeguard soil, water and air, this is not followed through in the policy aims;
- there is a commitment to 'integrate environmental considerations fully into the CAP' but no clarity as to how this will be achieved;
- agriculture is required only to 'have regard to' the commitments on the Biodiversity Action Plan, rather than being 'environment-led'.

The agriculture chapter of the UK's Sustainable Development Strategy avoids a fundamental review of the subject. It contains only a very limited examination of how sustainable contemporary UK agriculture is, and it gives substantially more weight to economic than to environmental considerations. Overall, the great emphasis is placed upon the economic benefits of moving UK agriculture towards world market conditions. Increasing market orientation of agriculture is likely to encourage the trend towards specialisation and intensification with generally adverse environmental outcomes (see next chapter and chapter 5 for more detailed discussion). The UK Sustainable Development Strategy, in short, expresses the dominance of the globalisation project and the *lack* of integration between environmental and food production concerns that this implies. The UK Sustainable Development Strategy may be said, therefore, to be expressive of 'weak' sustainable development.

The policies of the present Government appear to differ very little from those described above, with a particular emphasis given to the need to liberalise the agriculture sector. Confirmation of the character of the Government's commitment to sustainable development will emerge with the publication in late 1998 of a revised UK Strategy for Sustainable Development.

These tensions between 'weak' and 'strong' sustainability are also manifested at the European level, although it is true to say that the CAP, in its present form, appears to retain a greater degree of popularity on the continent, particularly in Germany and France. The CAP has been, and is still, determined by economic motives of a 'social democratic/market' type. That is, it is a system premised on market interventionism to stimulate production, through which wider social objectives are putatively to be secured. As noted, however, over time the CAP has encountered mounting economic, environmental and social contradictions. In response to these contradictions a range of measures has been introduced over the course of the last decade. These measures, however, have been designed essentially to mitigate, rather than to resolve, the causal basis of contradictions. For example, the Agri-Environment Measures within the CAP (under Regulation 2078/92) are marginal to, and must compete against,

mainstream commodity support which, despite the 1992 MacSharry reforms, continues to sustain farming practices damaging to the environment both on protected sites and in the wider countryside. Expenditure on agri-environment schemes in the EU is only some 3% of spending on agricultural commodity support. In this way, the current structure of EU policy largely impedes the adoption of a more integrated and multi-functional approach towards the rural environment as a pre-condition for 'strong' sustainability (see final chapter for further discussion). Despite reform and the existence of the Accompanying Measures, the CAP remains, in essence, a highly sectoral policy mechanism, premissed on productivism, which impedes the development of land use policies in which there is a complementarity between environmental, social and economic aims, as required in Agenda 21 of the Rio Convention of 1992.

For reasons identified earlier, we are entering a new post-productivist era in which agriculture is steadily losing its preeminence as a wealth generator and employer, in addition to generating the environmental and social contradictions described. Policies which seek to ensure the long-term viability and sustainability of rural areas and their environments can no longer rely on this being achieved simply through support for agriculture. Future policies will need to take much more explicit account of the environmental products and wider public benefits that agriculture and other rural land use is required increasingly to generate. A radical and progressive reform of the CAP is needed, in which greater emphasis is given to the environment and rural development objectives alongside those of agriculture. The need for reform is underpinned by the EU Biodiversity Strategy, the EU Habitats and Species Directive and by the formal commitment under the Maastricht and Amsterdam Treaties to secure better environmental-economic integration.

The EC has recently published, in Agenda 2000, its proposals for the development of agricultural and rural policies beyond the turn of the century. Despite much encouraging rhetoric in respect of sectoral integration and environmental sustainability, such objectives and principles are poorly reflected in the detailed proposals of Agenda 2000. The proposals, as they stand, offer little prospect of achieving a longer-term resolution of the environmental, social and economic contradictions of current EU rural policy, as a prerequisite for 'strong' sustainability. In the next chapter we turn to a more detailed assessment of the impacts of domestic and EU agri-rural policy on a range of environmental and social indicators of sustainability.