

market conditions, (without) encouraging or maintaining farmers in production" (House of Lords, 1991, p32). Full liberalisation would swiftly follow.

## 5. The Nature Conservation Implications of Liberalisation

To the extent that the CAP has been an environmental 'engine of destruction' in Europe's countryside over the last thirty years, its liberalisation and dismantlement might seem like something to be welcomed. Some commentators have long argued that "the single most important change in agricultural policy from the viewpoint of conservation ... would be a reduction in the level of agricultural protection " (Bowers and Cheshire, 1983, p10). There is little doubt that what Rausser (1982) sees as the defining weakness of the CAP - its attempt to maintain the incomes of poorer farmers by offering all farmers subsidies linked to production - has been a significant factor in the intensification of agriculture. In the short run, 'coupled' high price guarantees encouraged an intensification of output as farmers responded by increasing their use of variable inputs and adopting high input farming systems. As Buckwell (1990) points out, however, the fact that rising input costs quickly turned the immediate terms of trade against UK farmers following entry into the Community, suggests that other factors, notably autonomous technical change, must have been involved here and elsewhere. The long run effects of agricultural support policies are less controversial. Once they became convinced that public support was likely to continue, European farmers used the short run profits created by high price guarantees, together with capital grants and credit subsidies, to reequip their farms and restructure their farm enterprise mix. Very soon they also faced rising land values and rents due to the capitalisation of farm support. The resulting inflation of land values has had its own environmental effects, increasing the opportunity cost of uncultivated or unimproved land and providing a spur to land improvement and reclamation.

All that being said, it is far from clear that dismantling agricultural support would put these processes into reverse and achieve the significant improvement claimed by liberalisers, especially in a managed countryside like Western Europe's. The conclusion had been reached some time ago that " while high prices (have) contributed to environmental damage in the past, merely reducing them could yield a variety of effects - not all of them beneficial for the environment" (Haigh and Grove-White, 1995, p7). This has not prevented supporters of liberalisation claiming an automatic environmental improvement following the removal of support (see Anderson, 1992). The idea continues to gain ground and deserves to be examined carefully, if only to counter the sweepingly optimistic predictions of liberalisers like Anderson (1992) and Abler and Shortle (1992), who, by equating environmental problems solely with excessive use of fertilisers and farm chemicals, ignore the much more uneven implications for habitat and landscape protection of a sudden removal of farm support.

Two observations can be made at the outset. First, there is likely to be a relationship between the pace of reform and the nature of the associated environmental impact. Rapid and abrupt price changes will give rise to the most dramatic changes in the ecology and appearance of the countryside as falling land and asset values drive some farmers out of business and bring about a redistribution of land holdings. A phased reduction in support would give farmers more time to adjust and may be associated with rather more lags in the adjustment process. Land use and environmental change is now more likely to be the cumulative result of decisions made by farmers who can no longer earn satisfactory returns from agriculture. A range of land use changes will occur because of enterprise substitutions and business restructuring. Second, the environmental impact of the removal of support will be irregular and spatially uneven

given the diversity of farming situations with which policy change has to interact. The geography of the farmer response is consequently very important in the overall picture. Modelling exercises are poorly equipped to deal with either of these classes of effects. Studies such as those by Harvey *et al* 1986) and, more recently, Moxey, *etal* 1995) are concerned only with the aggregated comparative statics of a before and after situation and can tell us little about the nature of the process itself or the range of effects that can be expected. Indeed, increasing technical sophistication in modelling work has yet to yield any commensurate improvement in predictive capacity. The result is a dearth of knowledge concerning how precisely farmers would react to such a dramatic policy change, let alone what this would mean in environmental terms.

There is a general consensus about the immediate sequence of events at least. A significant fall in internal producer prices would cut returns to agriculture dramatically. MAFF (1995), in its sensitivity exercise, estimates that UK agriculture would initially suffer a net annual loss of between £2 and 4 billion. The result would be a substantial fall in land values and rents (MAFF predicts a 40% reduction in aggregate terms). It is at this point in the argument that liberalisers usually play their green card. Falling product prices, by reducing the marginal revenue to be gained on each additional unit of output, will cause farmers to de-intensify production on a wide front by reducing their use of inputs in line with known elasticities of demand for fertilisers, pesticides and other farm chemicals with respect to product prices. This is deemed to be an a priori good thing for the environment and would in Abler and Shortle's words "diminish environmental problems associated with cereal production by greatly reduced production and a less intensive use of what is left" (Abler and Shortle, 1992, p779). Sceptics have sometimes argued that market optimists ignore the possibility of a perverse supply response as some farmers attempt to maintain falling margins by actually intensifying production in order to boost output. This idea is usually met with bafflement from economists who point out that such a response makes little economic sense for most farmers if marginal revenues on increased output do not cover the increased marginal variable costs of using more fertilisers and sprays. Moreover, critics are committing the fallacy of *post hoc ergo propter hoc* when they support their argument with evidence that input use has risen in the past when prices have been falling (the explanation usually being the impact of technology on the production process, particularly biological technical change which facilitates increasing output from the same area of land in production). Even so, is price induced extensification likely to benefit the environment all that much? Given that reduced product prices will almost certainly cause farmers to economise on their use of variable inputs and reduce insurance applications, some benefits on the intensive margin of production may well result. But the effect will probably be much smaller than is often assumed and is unlikely to be concentrated in ways which will ease problems such as nitrate pollution of groundwater or eutrophication. Meanwhile, cutting fixed costs, the classic response of farmers to a squeeze, could have far from positive conservation effects. Habitat management on farms is by its very nature labour intensive and the willingness and ability of farmers to spend money on conservation will be an early casualty of falling profit margins on most farms.

Once the medium and long run effects are brought into play the environmental balance sheet is considerably more complicated. Over a time span of five to ten years, the removal of support will lead to a drop in production overall from European farms but also substantial shifts in the distribution of production within and between member states. An important factor in the process will be the relative profitability of different enterprises and the expansion, contraction and substitution of crops and livestock that will result. Within the EU, many cereal producers and some growers of oilseeds and field crops will find they can produce profitably at world market prices

and studies such as those by the Netherlands Scientific Council for Government Policy (1992) predict a concentration of arable production on the best land in, for instance, the UK and France. According to some commentators, wheat is produced on many farms in France and the UK at comparable or lower cost than on average US farms. These farmers will find they can compete on world markets. Some livestock production in the North and West of Europe will also remain competitive, as will intensive grain-based systems of pig and poultry production. The main casualty will be dairying which, together with olive oil and some wine production, will contract steeply under a liberalisation scenario.

In the UK, as elsewhere, production will gravitate to the best land. Specialist cereal producers in the arable heartlands of East Anglia, the East Midlands and parts of the South, will increase their market share and, to the extent that continuing technical change encourages the retention of high input high output systems, will continue to apply high levels of chemicals and fertilisers to crops (though the development of precision farming and integrated pest management could lead to reductions in application levels overall). At the same time, a fall in feed grain prices will favour intensive livestock production, especially pigs and poultry and this type of production too will become even more concentrated on fewer farms. Elsewhere, there will be a general shift out of tillage and into grass. This will be most easily achieved on existing mixed farms with the best land where beef and sheep enterprises can be expanded to the extent that the market allows. It is unclear how far existing specialist arable producers will be willing or able to follow the same course. A concurrent contraction and concentration of milk production will mean that many existing dairy farmers will be looking to utilise their grassland area by also expanding sheep and/or beef enterprises for which the UK will continue to have a comparative advantage. Existing producers of these commodities will consequently find their markets overloaded in the short term and there could be a shunting effect as marginal grassland farms with the lowest quality grass are squeezed out. Laurence Gould (1986) indeed predict the emergence of new marginal lowland areas of up to two million hectares in extent where the effects of this shunt will be most acutely felt. In such 'middle countryside' land will revert to grass but at varying intensities of use and where physical conditions allow there will be a tendency for land to move into alternative non-agricultural uses such as forestry. As Lowe *et al* (1995) observe, it will be movements of land out of agriculture and into forestry and industrial crops, rather than smooth changes in farming practice, which will become the focus of conservation concern in the years ahead. These are likely to be most pronounced in the more remote outreaches of the UK's Less Favoured Areas that agricultural adjustment will bring about the most dramatic land use shifts. So severe will be the impact of a withdrawal of support here that farms will disappear before enterprise adjustments can be made and the land released bought up by neighbouring farmers or private forestry companies and, conceivably, conservation NGOs. Amalgamation will bring with it extensification of a sort few conservationists desire; ranching of large tracts of upland vegetation and a decline in management practices essential for sustaining biodiversity and ensuring landscape protection.

Elsewhere, structural change will be a more gradual affair. It is inevitable that the removal of support will produce a smaller industry of fewer, larger businesses because the CAP 'brake' will finally be off and farmers will be under pressure to spread fixed costs by farming more land. Early victims will be highly geared farmers, including those who have borrowed money to finance expansion. Coleman (1983) argues that, by encouraging heavy borrowing against the collateral of inflated land values, high price support has created a policy trap which has ensnared precisely those most dynamic (and probably younger) farmers who have undertaken extensive

investment in order to expand production, particularly of cereals and milk. Falling prices and asset values will also eventually remove many other categories of farmer who are simply marginal in economic terms. Some of these will own or manage land and embody skills essential for conservation and to the extent that many remaining habitat fragments in the lowland countryside are the result of accidents of land occupancy or family history, the steady marginalisation of small and medium sized family farms will further deplete the conservation resource to be found there. The critical question here is: who will be taking over the land that is shaken out by the liberalisation process? An expansion of the part time farming sector is possible as new entrants are encouraged by lower land prices and this influx of new blood could be helpful in conservation terms. Much more usual, however, will be absorption into existing neighbouring farms; indeed this is very much the point of the exercise if liberalisation is to result in a more streamlined, competitive industry. Whether this will be associated with a more extensive management of the land farmed on these new 'super-farms' is, as we have seen, an extremely moot point. More certain is a removal of hedges, woods and other wildlife habitat as farm lay-out is regularised during the amalgamation process.

Summarising this discussion, the environmental benefits of agricultural liberalisation must be heavily qualified, if not outweighed, by the costs of adjustment in a managed countryside like the UK's. While falling prices will undoubtedly bring about a wide but shallow de-intensification of production, it is unsafe to assume that this will benefit the environment in any significant way. Set against this are the biodiversity and landscape implications of the relocation of production and the loss of high natural value farming systems on the margins of production. Liberalisers may themselves be committing a fallacy - the fallacy of composition - if they assume a net reduction in agricultural output can be equated with environmental improvement.

## 6. Weak versus Radical Decoupling

In reality of course the policy choice set is not this stark. While a return to protectionism is practically inconceivable given the high political stakes of international trade agreements, the overnight removal of farm support is equally unlikely (see table 2). What is less clear is the degree of decoupling consistent with the sustainable use of rural land. The weak decoupling achieved to date fails to break the link between farm support and agricultural production to the extent conservationists would like. While they have generated a small conservation dividend in the shape of the ECU 2 billion committed by the EC to an Agri-Environmental Programme (AEP), the 1992 reforms have also put in place producer aid schemes that are insufficiently decoupled from production. Expenditure on price support massively exceeds that on the AEP. In an immediate sense this makes it harder to attract enough farmers into voluntary AEP schemes to make a difference. At the same time the new compensation schemes cut across what many AEP schemes are trying to achieve; Winter (1996) comments that policymakers seem unaware of the knock-on effects of even the most minor change to a scheme's design and conditions. Set aside is particularly controversial. With internal EU producer prices still above world levels, the incentive to maximise yields on the cropland still in production remains strong and while the total volume of inputs applied to arable land has (obviously) declined, there is evidence to suggest that rates of use have increased since the scheme was introduced (see for instance, Winter, 1996). On the other hand, by freezing land in arable production (land which was under grass at the end of December 1991 is ineligible for AAPS payments), the scheme should prevent further conversion of grassland on arable farms. Equally however it keeps poorer quality land under crops and makes farmers reluctant to reduce their 'base area' by enrolling land into AEP schemes

requiring conversion. In the UK, MAFF's determination to 'green' set aside has meant that derogations have been granted allowing farmers to choose to set aside the same piece of land for six year periods and/or count land enrolled in some environmental and forestry schemes towards their total set aside obligation.

In the livestock sector, the introduction of quotas and ceilings determining maximum entitlements for premium payments has frozen livestock numbers (albeit at historically high levels), though the ability to lease or transfer quota means that some movement of livestock will still occur. To the extent that support to marginal producers has been increased under the package (there is evidence that stocking rate limits have benefited upland farmers who have been able to exploit under utilised forage area to carry more stock without exceeding the limits), weak decoupling may have secured some environmental benefit here. That apart, the stocking rate limits themselves are calculated to minimise agricultural rather than ecological overgrazing and a better matching of grazing pressure to carrying capacities will happen only by chance. The various premium payments also fail to give farmers any incentive to manage vegetation or re-install traditional husbandry practices that are critical if the conservation value of upland habitat is to be maintained. And the calculation of payments on a headage basis continues to be disputed by conservationists. Taking a pragmatic line, conservationists have been keen to increase the number of conditions which farmers have to meet in order to qualify for the various direct payment schemes set up under the MacSharry package. At present the level of 'cross compliance' built into compensation payments is rather low, probably precisely because they have been conceived as compensation for cuts in price support. Groups such as RSPB (Dixon and Taylor, 1989) have mounted a long campaign to persuade agriculture departments to attach more conservation strings to the payments farmers receive. The speed with which the idea has been taken up by farm groups, in the UK at least, (see NFU, 1994; CLA, 1995) attests to its political as well as environmental advantages.

**Table 2: Environmental Aspects of Decoupling**

	<b>Mechanisms for Environmental Improvement</b>	<b>Agri-Environmental Policy Configuration</b>
<b>Liberalisation</b>	Price-induced de-intensification	N/A
<b>Radical Decoupling</b>	The double dividend: price-induced extensification; reallocation of money into environmental schemes	Strictly decoupled environmental management schemes, payments calculated with reference to environmental outputs achieved
<b>Moderate Decoupling</b>	Maintaining sufficient farming activity to ensure production of joint products; additional improvements engineered through top up payments	Bottom tier hectareage payments and voluntary set aside, upper tier environmental payments offered on a discretionary basis
<b>Weak Decoupling</b>	Voluntary enrolment in AEP schemes; application of cross compliance to producer payment schemes	AEPs and conservation compliance

Cross compliance solves the legitimisation problem which partial decoupling creates (by allowing farmers to claim they are delivering public environmental services in return for the payments they receive) and blurs the line (which radical decouplers are so anxious to maintain) between temporary compensation and semi-permanent policy entitlements. But it also says something significant about the changing priorities of conservationists which radical decouplers would do well to heed (see below). This is that by placing environmental conditions on the way almost every farmer in receipt of a payment farms, cross compliance maximises the 'reach' of agri-environmental policy

and secures the protection of much larger tracts of countryside than would be possible through voluntary management agreements alone. At the same time, payments linked to production (but not yields or stock) maintain the farming mix and structures that may be necessary to conserve habitat mosaics and the integrity of Natural Areas. However, the danger in applying cross compliance to payments that are only very weakly decoupled from production is that it may keep in place schemes and systems of production that conservationists have no wish to see continued. This is the outcome radical decouplers most fear. Far better to have the environmental rationale up front. Hence the proposal for strictly decoupled environmental management payments from commentators like Jenkins (1990). Moreover, it is argued, the environment would benefit twice under a CAP which, while stripped of price support, would not abandon farmers entirely to world market forces. This double dividend idea is essentially a refinement of the widely heard argument that free trade generates growth and growth increases both the demand for environmental services and generates the resources necessary to pay for them (Ekins, 1994). In the agricultural case, it is claimed, the environment would benefit once through the removal of price support and the reduced incentive for intensification this creates and again when monies are reallocated in favour of direct environmental management schemes. Jenkins (1990, p7), in his proposal for a fully decoupled set of environmental management payments, for instance, is generally sanguine about the effects of removing price support but goes on to argue that "it is advantageous to pay farmers directly for the environmental goods they produce, "Marsh *et al* (1991) envisage that specific payments to farmers for environmental services would continue once bonds had expired and in more recent proposals Tangermann and Josling (1995) hint that environmental subsidies could form the core of a much reduced and renationalised CAP.

For all its plausibility as a policy package, radical decoupling has drawbacks from a nature conservation point of view. To the extent that it implies a drastic cut in agricultural support levels overall, radical decoupling would put in play the same restructuring of production and land use changes associated with liberalisation described above. Proponents tend to be coy about how much money would be reinjected into rural areas through recoupled payments but appear to have in mind a very lightly engineered system which would substitute for only a fraction of current outlays. The environmental consequences of the resulting net withdrawal of support would, even if offset by bonds or some other transitional payment, be significant and, as has been seen, not all in the same direction as the environmental subsidies themselves. There would be real difficulties in instituting such a radical shift in funding with the danger that, even with environmental management payments on offer, many of the more marginal producers best placed to 'farm' them would already have been squeezed out of existence.

According to Bowers (1995, p1235) "the abandonment of agricultural support through the price mechanism will yield substantial consumer surplus, part of which might be in principle captured through taxation to pay for alternative support through direct payments". The key word in this sentence is 'might'. Are policymakers likely to be willing to commit large sums to programmes which involve transferring large sums of money in such a transparent and visible way? Conservationists could find themselves hoist by their own petard if, by agreeing to very tightly drawn schemes which maximise value for money in narrowly defined environmental output terms, they end up with measures which 'cherry pick' only the most enthusiastic and reliable farmer participants. By taking to a logical conclusion the idea that environmental products can be specified in management agreements and produced to order by individual farmers, free standing environmental management payments attempt to create a

quasi-public market in conservation goods. Additionality considerations would surely be uppermost, contracts being designed to demonstrate maximum value for money in order to ensure continued funding. The problem is that a focus on value for money could be at the expense of that other desideratum of agri-environmental schemes - maximum policy reach (the need to realise ecological economies of scale by bringing about changes on a large number of farms within a location and across the country at the same time). At stake here is what, for want of a better phrase, might be called the 'joint product' view of agriculture and conservation, in which agricultural activity is maintained throughout the countryside in order to protect cultural landscapes and habitat mosaics. Within the UK, this idea has been enshrined in the linked concepts of countryside character and natural areas currently under development by the Countryside Commission and English Nature respectively. It is arguable that a substantial reduction in agricultural support, even if offset by decoupled environmental management payments, would make the extensive sort of conservation implied here much more difficult to achieve.

## 7. The Environmental Case for Moderate Decoupling

Decoupling then can be taken too far as well as not far enough to be useful to conservationists. In the context of WTO concerns the issue is whether reducing trade distortion to satisfy the disciplines of the green box must also mean reductions in agricultural support so drastic that they wipe out much of the human capital necessary for the conservation of the countryside. Very few commentators are currently willing to contemplate a middle way which deploys different arguments to justify retaining a broad base of support on socio-environmental grounds.

Nevertheless, there are already in existence post-GATT agricultural policies in some developed countries which combine, in a way EU policymakers have not managed to achieve, full tariffication with the introduction of new permanent policy entitlements delivered to farmers through hectare payments. It is perhaps significant that Sweden was moving in the same direction before her accession to the EU (see Vail *et al* 1994). By allowing states to continue supporting farmers in a moderately decoupled way, PEGs or some other variant ensure that many more farmers remain on the land than would otherwise be the case, fulfilling the EC's injunction that "sufficient numbers of farmers must be kept on the land. There is no other way to preserve the natural environment, traditional landscapes and a model of agriculture based on the family farm as favoured by society generally" (EC, 1988, p11).

Critically, moderate decoupling also preserves policy reach. In the livestock sector, the conversion of headage to hectare payments has long been discussed (see Egdell, 1994), where it is seen as a more environmentally neutral way of supporting marginal grassland farms. Hectare payments reduce the incentive to over graze but also ensure that the land is farmed. Moreover, and this is critical to the conservation case for their deployment, they also provide a platform on which other, more targeted environmental payment schemes can rest. The arable sector poses greater problems, for it is hard to see how universal hectare payments could be justified in green box terms. One way forward could be to act on Josling's suggestion of converting the existing compulsory set aside scheme to a voluntary measure, with no ceiling on the percentage area that can be enrolled. This would encourage the greater and more concentrated conversion of marginal arable land and make it easier to impose environmental conditions on what is done with the land set aside. Although arable farmers with the most productive land would inevitably choose not to enrol, and thus put themselves beyond the reach of government influence, there would likely be a sufficient uptake at world price levels elsewhere to justify continuation on

environmental grounds. By imposing appropriate conditions, policymakers would be able to engineer changes in land use in the lowlands in ways which maximise their conservation impact.

Moderate decoupling has the advantage that it offers maximum scope for applying the lessons of the recent past in the design and implementation of agri-environmental programmes. As Nelson and Soete (1988) remark, policy evolution offers more scope for engaging in experimentation and learning from feedback than revolution and by taking the MacSharry reforms a stage further, moderate decoupling would facilitate feedback and learning from the various land management schemes already in operation throughout the EU. Tiering of payments, for instance, is a simple but effective principle which has been widely exploited in the UK's ESA programme and elsewhere in the AEPs of other member states (Potter *et al* 1996). Hectarage payments, possibly modulated by region, would form the bottom tier paid to all farmers and these could be used to maintain field patterns and land use necessary to conserve countryside character. More discretionary payments, designed to maximise additionality, could then be allocated to bring about more ambitious environmental improvements on certain farms. By comparison, the idea of calculating payments on the basis of measured environmental outputs has rarely been tested and policymakers are still a long way from developing the system of payment by results that would arguably be necessary if free standing environmental management payments are to be defensible on a large scale.

Not that the defence of a moderately decoupled system of agricultural support will be unproblematic. In a world of more liberal world trade, a major concern of conservationists is likely to be the political sustainability of what, after all, will be highly transparent payments being allocated to a particular section of society. While existing agri-environmental schemes fit current green box criteria, it is still unclear how far the criteria themselves will be renegotiated and tightened up when the URAA expires. Recent interpretations of WTO rules in other areas suggest that scrutiny is likely to be intense. A key issue is the so-called product/process distinction (i.e., whether allowable environmentally beneficial trade distorting measures should relate to an end product or the process(es) which led to its creation). In the agri-environmental field, as we have seen, support for entire sectors may need to be retained to ensure that particular farming systems and practices are maintained and it may not always be possible or desirable to relate support to specific environmental outputs. Under the GATT Subsidies Code, however, subsidisation of processes is more difficult to defend than subsidisation of products and there may be objections on grounds of trade distortion. In practice, the amount of trade distortion created by an expansion of agri-environmental programmes may not be all that great given that green subsidies will be all but universally applied in industrial countries by the end of the decade.

## **8. Further Research Needs**

This brief sketch suggests that a moderately decoupled CAP may offer the best way to reconcile the pressure to reduce trade distortion with the need to maintain farm support on rural social and environmental grounds. It deserves to be further explored in relation to the other decoupling strategies already outlined. Further research is needed on two fronts. First, to improve the knowledge base concerning the likely impact of the removal of farm support, second to better articulate the case for retaining a broad base of agricultural support and to detail what a moderately decoupled CAP would look like. Surprisingly little research has been conducted into the nature and range of environmental effects of significant reductions in farm

support. Most predictions derive from two sources: periodic modelling Delphi-type exercises such as those conducted by Laurence Gould (1986) and NEDC (1987) or research based on economic models, of which the LUAM is the best developed. There is a dearth of qualitative case study research which assesses the implications for farming and the countryside in specific but representative locations. Given the spatially uneven nature of any restructuring process, this is a significant gap in knowledge. It is proposed that research be conducted to assess the likely impact of different decoupling strategies on the conservation quality profile of a selection of Natural Areas in lowland and upland Britain. This work could usefully build on research already in progress which is aiming to clarify the relationship between the pattern and structure of farming and the conservation profiles of Natural Areas. Combining farm and ecological surveys with locally convened focus groups, the aim would be to undertake a sensitivity analysis of the impacts associated with different degrees of decoupling. The researchers would need to make assumptions about the vulnerability of different categories of farmers and the short and long run adjustments to farming practice likely to result. They would also need to make assumptions about the purchase on the resource of different land management schemes under these scenarios based on projections of enrolment rates from farm survey data. The output would provide policymakers with a more complete picture of the impact of policy change on the character as well as the ecology and conservation value of the areas concerned.

Building on this empirical work, further desk research is needed to establish the case for continued agricultural support in order to safeguard environmental assets in the European countryside. Links between the farming mix and the conservation resource need to be better defined and the significance of joint economies underlined and explained. Key principles for effective agri-environmental policy design could usefully be set down and an assessment made of the relative merits of wide but shallow versus narrow but deep patterns of enrolment in different countryside locations. A detailed and systematic analysis of the environmental advantages and limitation of the decoupling strategies outlined in this report could then be undertaken with these benchmarks in mind. Such an analysis would culminate in a set of proposals for further step-wide reform. The work would need to assess the compatibility and defensibility of the preferred policy options with the likely future configuration of the GATT green box. Equally, the environmental and social case for extending policy entitlements to farmers in CEEs would need to be fully explored.

## 9. Conclusions

Conservationists need to require a telescopic view of agricultural policy reform after a period in which the focus of debate has been on the specific and the short term. Far from having exhausted the reform process, the MacSharry agreement appears to be merely the first stage on a much longer journey; the route to be followed is already marked out, though it is still unclear how far down the road to a fully liberalised CAP policymakers will actually go. In setting out the different degrees of decoupling which might be achieved, this report has sought to define where the area of choice actually lies. This appears to be between, on the one hand, a moderately decoupled CAP, under which some baseline of agricultural support is retained but delivered through hectare payments or PEGs subject to environmental compliance, or, on the other, a much more radically decoupled policy in which transitional compensation for the ending of price guarantees eventually gives way to a lightly engineered system of strictly decoupled social and environmental payments. It is widely assumed that the latter is likely to be both more environmentally effective and politically sustainable, with payments for specified environmental outputs being negotiated with individual

farmers. In fact, as a strategy for nature conservation, radical decoupling suffers from a number of drawbacks and to the extent that it is based on a largely northern European conception of agri-environmental problems, is unlikely to command EU-wide support. A more moderately decoupled CAP, by comparison, opens the way to a broader based and hence more politically feasible European Rural Policy, designed to achieve interlocking social and environmental goals. The need now is to articulate an alternative vision for the European countryside to which such a strategy could relate.

## References

- ABLER, D. & SHORTLE, J. 1992. Potential for Environment and Agriculture Policy Linkages under Reforms in the EC. *American Journal of Agricultural Economics*, August 1992, 773-780.
- ANDERSON, K. 1992. Agricultural Trade Liberalisation and the Environment: a Global Perspective. *The World Economy*, 15 (1), 153-171.
- ANDERSON, K. & HYAMI, Y. 1986. *The Political Economy of International Agricultural Policy*, London.
- ARDEN-CLARKE, C. 1992. *International Trade, GATT and the Environment*. Switzerland: WWF.
- BOWERS, J. 1995. Sustainability, Agriculture and Agricultural Policy, *Environment and Planning A*, 27, 1231-1234.
- BOWERS, J. & CHESHIRE, P. 1983. *Agriculture, the Countryside and Land Use*. London: Methuen, London.
- BUCKWELL, A. 1990. Economic Signals, Farmers' Response and Environmental Change. *Journal of Rural Studies*, 5 (2), 149-160.
- COLEMAN, D. 1983. The Free Trade Alternative, in *Centre for Agricultural Strategy, Agriculture, the Triumph and the Shame: an Independent assessment*. Reading: CAS, 47-57.
- COUNTRY LANDOWNERS ASSOCIATION. 1995. *Focus on the CAP: a discussion paper*. London: CLA.
- DALY, H. & GOODLAND, R. 1994. An Eco-economic assessment of deregulation, *Ecological Economics*, 9, 73-92.
- DIXON, J. & TAYLOR, J. 1990. *Agriculture and the Environment*. Sandy: RSPB.
- EGDELL, J. 1994. *Switching CAP livestock support from headage to hectare payments*, unpublished paper to Annual Conference of the Agricultural Economics Association.
- EKINS, P. 1994. Trade, environment and development: the issues in perspective. *Ecological Economics*, 9, 1-12.
- EKINS, P, FOLKES, G. & CONSTANZA, R. 1994. Trade, environment and development: the issues in perspective. *Ecological Economics*, 9, 1-12.

- EUROPEAN COMMISSION. 1988. *The Future of Rural Society*. Com (88) 501. Brussels: CEC.
- GRANT, W. 1995. The Limits of CAP Reform and the option of renationalisation. *Journal of European Public Policy*, 2 (1), 1-18.
- HAIGH, N. & GROVE-WHITE, R. 1985. Introduction and observations. In: D. Baldock and D. Conder, eds. *Can the CAP Fit the Environment? Proceedings of a Seminar*. London: CPRE/IEEP, 7-8.
- HARVEY, D. *et al.* 1986. *Countryside effects of changes in the CAP*. Reading: CAS.
- HARVEY, D. 1990. *The CAP and green agriculture*. London: IPPR, Green Paper 3.
- HARVEY, D. 1994. Agricultural Policy after the Uruguay GATT Round. In: K. Ingersent *et al.*, eds. *Agriculture in the Uruguay Round*. London: St. Martin's Press, 223-259.
- HARVEY, D. 1995. EU Cereals Policy: an evolutionary perspective. *Australian Journal of Agricultural Economics*, 39 (3), 193-217.
- HOUSE OF LORDS. 1991. *Development and future of the CAP*, Select Committee on the European Communities. London: HMSO.
- HOUSE OF LORDS. 1994. *The implications for agriculture of the Europe agreements*, Select Committee on the European Communities. London: HMSO.
- INGERSENT, K. *et al.* (eds.) 1994. *Agriculture in the Uruguay GATT Round*. London: St. Martin's Press.
- JENKINS, T. 1990. *Future harvest: the economics of farming and the environment*. London: CPRE.
- JOSLING, T. 1994. The reformed CAP in the industrial world. *European Review of Agricultural Economics*, 21 (3), 513-527.
- KOESTER, U. & TANGERMANN, S. 1977. Supplementing farm price support by direct payments. *European Review of Agricultural Economics*, 4 (1), 7-31.
- LAURENCE GOULD. 1986. *Changes in land use in England, Scotland and Wales*. Laurence Gould Consultants Ltd.
- LOBLEY, M. *et al.* 1996. *Agricultural stewardship in the EU*. Unpublished paper.
- LOWE, P. *et al.* 1995. *Countryside prospects, 1995-2000: some future trends*. Centre for Rural Economy Research Report, University of Newcastle.
- MAFF. 1995. *European agriculture: the case for radical reform*. London: MAFF.
- MARSH, J. *et al.* 1991. *The changing role of the CAP*. London: Belhaven, London.
- McCALLA, A. 1993. Agricultural trade liberalisation: the ever elusive grail. *American Journal of Agricultural Economics*, 75, 1102-1112.
- McMICHAEL, P. 1993. World food system restructuring under a GATT regime. *Political Geography*, 12 (3), 198-214.

- MOXEY, A. *et al.* 1995. CAP Reform: an appraisal of the NELUP model. *Journal of Environmental Planning and Management*, **38 (19)**, 117-123.
- NEDC. 1987. *Dimensions of change: land use in the 1990s*. London: NEDC.
- NELSON, R. & SOETE, L. 1988. Policy conclusions. In: G. Dossig *et al.*, eds. *Technical change and economic theory*. London: Pinter.
- NETHERLANDS SCIENTIFIC COUNCIL FOR GOVERNMENT POLICY. 1992. *Ground for choices*. The Hague: NSCGP.
- NFU. 1994. *Real choices: a discussion document*. London: NFU, London.
- OECD. 1995. *Agricultural policies, markets and trade, monitoring and outlook report 1995*. Paris: OECD.
- POTTER, C. *et al.* 1996. *Agricultural Stewardship in the EU: a reassessment of agri-environmental policy*. Mimeo.
- RAUSSER, G. 1982. Political economic markets: PERTs and PESTs. *American Journal of Agricultural Economics*, **64 (5)**, 821-833.
- RAUSSER, G. & IRWIN, D. 1989. The political economy of Agricultural Policy Reform. *European Review of Agricultural Economics*, **15**, 349-366.
- RONNINGEN, V & DIXIT, P. 1991. *A single measure of trade distortion*. IATRC Working Paper, RES, USDA, Washington D.C.
- SWINBANK, A. 1992. Gatt, Macsharry and CAP Reform. paper presented to *European Public Policy Institute conference*, University of Warwick.
- TANGERMANN, S. 1992. *Reforming the CAP: in for a penny, in for a pound?* London: Institute of Economic Affairs.
- TANGERMANN, S. 1996. An ex-post review of the MacSharry Reform. Paper presented to conference, 'CAP Reform: What Next?' CREDIT, University of Nottingham.
- TANGERMANN, S. & JOSLING, T. 1995. *Towards a CAP for the next century*. London: European Policy Forum.
- TILZEY, M. 1996. Personal Communication.
- TRACY, M. 1982. *Agriculture in Western Europe: challenge and response, 1880-1980*. London: Harvester.
- VAIL, D *et al.* 1994. *The greening of Agricultural Policy in industrial countries*. New York: Cornell University Press.
- WINTER, M. 1996. The CAP and the environment. Paper presented to conference, *CAP Reform: What Next?*, CREDIT, University of Nottingham.