ICTSD Programme on Agricultural Trade and Sustainable Development

The Environmental Impact of EU Agricultural Subsidies in the WTO Green Box

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1 Introduction

With over €58bn spent each year on agricultural subsidies in the EU, they have become a key determinant of farmers’ incomes, frequently accounting for over half of European farmers’ annual earnings, and thus of land use decisions. The way in which these subsidies have been allocated has therefore shaped land use patterns across the EU and consequently had a resounding impact on wildlife and the environment in rural areas. At the same time, these subsidies have been accused of heavily distorting world trade to the detriment of farmers in developing countries, and have become one of the principal stumbling blocks in the Doha round of negotiations at the WTO.

The Common Agricultural Policy (CAP) underwent significant reform in 2003. This reform was driven by negotiations at the WTO and, to a lesser extent, by the environmental impacts of the CAP. It resulted in a shift of CAP spend from traditional market and product support measures to Green box compliant schemes, i.e. subsidies that are considered to be non trade distorting. It also saw the introduction of minimum environmental standards for all farmers in receipt of subsidies, known as cross-compliance, and the strengthening of environmental schemes.

These trends are likely to continue in future reforms; indeed environmental and landscape concerns are now widely used to justify the EU continued support for farmers1.

Critics argue that many Green Box classified subsidies actually have trade-distorting effects2, and consequently negative impacts on developing countries. Furthermore, there are fears that green box payments are being used to disguise farm subsidies rather than to deliver social or environmental objectives. Indeed, there are many examples of green box classified payments in the EU that are actually causing environmental damage, as discussed in this paper.

The need to address this problem is urgent, as abuse of the green box is damaging the reputation of agricultural support that can deliver genuine social and environmental benefits. At the same time, the ability of green box payments to effectively deliver environmental benefits is effectively limited by WTO rules that place restrictions on how environmental payments can be calculated. This hampers efforts to reverse biodiversity decline and erodes the social acceptance of international trade rules.

This paper argues that while there are legitimate environmental and social reasons for ensuring that both developed and developing countries are able to provide some kinds of agricultural subsidies, there is evidence to suggest that the current subsidy regime does not adequately protect and promote environmental objectives in both developed and developing countries. The Doha Round mandate3 for a ‘review and clarification’ of Green Box subsidies provides an important opportunity for governments to ensure that payments in this category promote sustainable development objectives, and do not undermine them.

1 “…thanks to cross-compliance, these direct payments give farmers a strong incentive to farm in the way the public wants – respecting high standards of environmental care, animal welfare and public health. This reinforces farmers' traditional – and vital – role as stewards of the land.”- Mariann Fischer-Boel, Conference "Mind the CAP" Wageningen University, NL, 1 February 2007
2 G20, “Review and Clarification of Green Box Criteria”. June 2005
3 See the 2004 ‘July Framework’, WT/L/579, paragraph 16, and the Hong Kong Ministerial Declaration, WT/MIN(05)/DEC, paragraph 5.
The objective of this paper is to provide trade negotiators and policy-makers with an assessment of the positive and negative environmental impacts of EU agricultural subsidies categorised as Green Box, and, on the basis of this analysis, to make recommendations for future reform of EU Green box subsidies and suggests possible changes to Green box criteria in order to ensure optimal delivery of environmental goods and minimum opportunity to abuse the system.

Given the huge scope of environmentally related subsidies, we focus on the relationship between EU Green box subsidies and biodiversity conservation. However it is important to note that most comments are pertinent for other environmental goods such as water, soil and landscape. Biodiversity is a particularly useful example of a public good that is rarely rewarded by the market. Its conservation therefore depends on biodiversity being given a market value through public support.

2 The CAP: a journey to the green box

The CAP is the world’s largest system of agricultural subsidies, spending €58.2bn each year. It therefore plays a key role in EU politics, world trade negotiations, and, critically from an environmental perspective, it has considerable impact on how land is used in the EU and globally.

Introduced in 1957 as part of the Treaty of Rome, the CAP’s aim was to put an end to the post war food shortage and widespread rural poverty. The main delivery tools at that time were guaranteed prices, intervention buying, high import tariffs, and export subsidies. These policies were so successful in encouraging production that, through a combination of intensification and expansion in the area under production, they quickly led to surpluses and the infamous butter mountains and wine lakes of the 1980s.

It was a combination of the need to address these surpluses and the growing pressure from trade negotiations that initiated the first of the major CAP reforms. The MacSharry reform in 1992 aimed to reduce these surpluses by decreasing price support and introducing direct compensation payments to farmers. This process was continued by the Agenda 2000 reform, which further reduced price support and increased farmer compensation through direct payments. A “second pillar” of the CAP, aside from normal income payments to farmers, was officially created to pay for rural development measures.

The third and most significant reform took place in 2003 as part of the Mid Term Review of the Agenda 2000 reform. This reform resulted in the replacement of most direct subsidies by a single farm payment scheme that would be based on area and historic subsidy allocations, thus moving most of EU Payments into the Green Box classification.

The role of the CAP’s “II pillar”, i.e. Rural development, was strengthened with the introduction of “modulation” a process whereby funds are shifted from the first to the second pillar. As first pillar payments are still partially coupled to production, modulation also contributes to the shift of CAP subsidies into the Green box.
3 Greening the CAP

By generously rewarding production at any cost, the CAP has driven the intensification of agriculture in Europe. This has, in turn, been the main cause of the collapse in biodiversity, demonstrated by the decline in farmland bird populations\(^4\), in the EU. With production subsidies making up over half of farmer incomes in many instances, it is clear that they have played a fundamental role in farmers’ decisions, resulting in intensification well beyond the level that would be delivered by the market alone.

Intensification has been achieved through increasing yields and stocking densities, expanding fields and removing hedgerows and other important habitats, and increasing massively the use of pesticides and artificial fertilisers. Besides the collapse of farmland biodiversity, agricultural intensification is linked to a wide range of environmental problems such as water pollution and eutrofication, over abstraction of water, and soil erosion and degradation\(^5\).

The journey to the Green Box has supposedly been accompanied by a journey from a coarse and environmentally damaging system of farm support to one that now encourages sustainable farming through the removal of the link between payments and production and the introduction of minimum standards and incentive payments for higher standards.

The MacSharry reform began this process in what can be seen as a landmark moment for agricultural policy in Europe. It resulted in official recognition of the environmental problems caused by modern farming, and the introduction of agri-environment schemes as a tool for Member States to address them. Agri-environment schemes pay farmers for good environmental practices, rewarding them for being good stewards of the countryside.

This recognition of agriculture’s negative impacts on the environment grew throughout the 1990s, and has been supplemented by a new understanding of the role played by some, mainly traditional, agriculture practices in conserving and enhancing biodiversity, epitomised by the European Environment Agency’s long-running project to identify and map Europe’s High Natural Value farming areas.

The 2003 reform was the most important for the environment. The decoupling of agricultural support from production finally removed the perverse incentive to over-produce and thus cause environmental damage, whilst the introduction of Cross-Compliance has, at a minimum, put a much greater importance on complying with EU environmental legislation, such as the Birds and Habitats Directive, through linking compliance to the receipt of subsidies. Furthermore, the new EU Rural development policy, which is paid for through the second pillar of the CAP, has a strong emphasis on the environment and identifies biodiversity conservation as a key objective.

The CAP remains a long way from an environmental policy, and many parts still threaten the environment, but it is certain that the CAP has become significantly greener\(^6\). The journey of

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the CAP is thus also one from environmentally harmful subsidies to greater use of environmental payments.

4 The case for public payments for land management in the EU

Environmental payments for farmers, alongside a high regulatory baseline, are a necessary policy tool if agriculture is to deliver the range of environmental and social public goods that society expects of it. Thriving wildlife, beautiful landscapes upon which rural tourism depends, clean water, and well functioning watersheds are all products of agriculture in Europe, given that agriculture is responsible for the management of approximately three-quarters of European land. Wider society values these services but they have no market value. This results in a market failure in which sub-optimum levels of these public goods are delivered, resulting in biodiversity decline, water pollution, degraded landscapes and soils.

The relationship between agriculture and biodiversity in Europe is a particularly close one. Agriculture has shaped the European landscape, with much of Europe’s biodiversity intimately dependent on traditional farming. Traditional mowing and low intensity grazing, for example, have for centuries maintained a range of semi natural, biodiversity rich grasslands that would have otherwise reverted to scrub and forest. The action of big wild herbivores and large scale geomorphologic phenomena that used to maintain open landscapes in past eras is mostly gone forever. This means that abandonment of traditional agricultural practices is as much a threat to biodiversity as is intensification. Most traditional high nature value farming is not economically viable on its own, but its viability can be improved through targeted rural development aid and agri-environment support.

Land use policy, and principally agri-environment, is the best tool available to address this market failure and reverse the decline in biodiversity both at the macro, landscape scale, and at the more specialised species and habitats scale, including the Natura 2000 protected area network. Agri-environment schemes pay farmers to adopt or maintain specific farming practices based on an income foregone formula and have been shown to be able to deliver for the needs of specific species, and are expected to be able to deliver higher environmental standards throughout the countryside.

Climate change places a further importance on improving the sustainability of agriculture and its value to wildlife. The quality of agricultural habitats will determine the ability of many species to move effectively between protected areas in order to follow their shifting climate envelopes, i.e. the areas with the climatic conditions appropriate for the species in question.

7 Mccullough, “Identifying species richness “hotspots” for farmland birds in Europe: what makes a hotspot a hotspot?”; Centre for Ecology, Law and Policy, Environment Department, University of York, UK
5 EU Green box subsidies

This section looks at each of the major green box funding schemes in the EU following the 2003 CAP reform and asks:

a) Is the scheme targeted at the delivery of an environmental objective?
b) Is this public benefit not already being supplied by the market? i.e., is a market failure taking place?
c) What are the environmental impacts of the scheme, positive and negative?
d) Are the objectives quantified and measurable? Is there a monitoring and feedback system?
e) Do payments reflect the environmental benefit?

These questions are designed to test the validity of the subsidy and are based on the principle that support should only be used to deliver public goods that would not otherwise be delivered by the market. Food production in the EU might have passed this test forty years ago when the CAP was conceived, but it no longer does so, whereas schemes that reward farmers and other land managers for the delivery of positive externalities, such as wildlife, ecosystem services, and landscapes, would. Question d) and e) seek to establish whether the mechanism is fit for purpose by asking whether it has the basic attributes of a scheme that is able to deliver on its stated objectives.¹¹

Note that whilst some blue box support remains, including partially coupled payments and export refunds, these are not looked at in detail in this paper as they can be assumed to be generally environmentally harmful.¹²

5.1 Overview of CAP spending

The following Chart gives indicative annual spend on the principle chapters of the EU budget. Life + is made explicit as it is the only dedicated spend on biodiversity, demonstrating the relative size and importance of agri-environment and other agricultural spend for conservation in the EU. Pillar 1 includes all market support mechanisms such as export subsidies and intervention but principally consists of decoupled and partially coupled direct payments. In 2003, approximately 75% of Pillar I spend went to direct aid, and this proportion can be expected to have increased with reform.

¹² Portugal, “Methodology for measurement of support and use in policy evaluation”. 2002 OECD Directorate for food, agriculture and fisheries, Paris

Exact spend data is not currently available. Agri-environment spend is estimated based on Member State spending patterns in the 2000-2006 financial period.
Pillar 2 of the CAP consists of measures that fall into three axes:

- **Axis 1 - competitiveness of agriculture** - aims at increasing the economic competitiveness of the farm sector and includes investments in infrastructures, modernisation of farm holdings, land consolidation, training and other measures.

- **Axis 2 - land management and the environment** – aims to improve the countryside and the environment through supporting particular types of land management. Includes less-favoured areas payments, agri-environment and afforestation, all of which are considered separately in this section.

- **Axis 3 - improving quality of life in rural areas** - aims at diversification of the rural economy and increasing the quality of life in rural areas. It includes investments in rural tourism and recreation and in rural infrastructure.

Axis 2 measures are of greatest interest in terms of environmental delivery, and given special attention in this section, but the environmental impacts of Axes 1 and 3 are also considered.

### 5.2 Decoupled and partially coupled direct payments & cross-compliance

Direct payments are the principle subsidy for EU farmers following the 2003 reform, and are aimed at maintaining farmer incomes. Individual payments are calculated on the basis of either historic subsidy allocation in 2000 - 2002 or area, or a combination of both. This decision has been made at the Member State level, and in some instances at the regional level, with a preference towards historical allocation. Average payments are between €200 and €300/ha, although they go up to approximately €700/ha for farmers that grew sugar during the reference period in France, and even higher for tobacco related support.

Whilst in principle these payments are decoupled from production, Member States have had the option to retain partial coupling of up to 25% of the payment for cereals and up to 100%
for suckler beef to avoid land abandonment. This system of Direct Payments is being phased-in in the new Member States over a ten year period and will be fully implemented by 2013.

Decoupling payments from production will lessen the incentive to intensify and will therefore deliver environmental benefits relative to the pre-2003 system of support\(^\text{14}\), however environmental criteria have not been considered in the calculation of direct payments, and farmers that reduced production during the reference period as part of an environmental scheme may even be penalised by the system. Indeed, the historical allocation of payments, which has been the preferred method of distribution in most Member States, will favour the most intensive producers during the reference period, essentially rewarding those with a record of environmentally destructive practises instead of redistributing funds to smaller farm units and traditional farming that delivers environmental benefits.

The receipt of direct payments is, however, linked to respect of a set of Statutory Management Requirements (SMRs) and to keeping eligible land in Good Agricultural and Environmental Condition (GAEC). The expressed aim of these conditions, known as cross-compliance, is to maintain environmental, food safety, animal and plant health and animal welfare standards.

Cross-compliance explicitly seeks to protect the environment, but the demand these standards place on farmers, and consequentially the benefits they deliver, are disproportionately small relative to payments. Thus, the bulk of the direct payment scheme is not about maintaining these standards but about improving farmer incomes. On an 181ha arable farm in Cambridgeshire, for example, it was calculated that the costs of implementing cross-compliance were approximately €75 compared to €27,000 received in direct payments\(^\text{15}\).

Cross-compliance requirements are basic rules, theoretically prohibiting the worst practises such as the destruction of the most important habitats on farm and requiring management plans to be drawn out. They are, however, by no means comprehensive: permanent grassland, which is one of the most valuable farmland habitats in Europe, is not fully protected and can still be ploughed up in many circumstances, whilst many landscape features, including ancient trees and hedgerows can still be destroyed depending on how Member States interpret the EU rules.

In summary, cross-compliance is likely to deliver limited benefits depending on how it is implemented at the Member State level. It has, as a minimum, given a significant boost to the importance of farmers complying with European law, but its effectiveness in delivering environmental benefits will not be clear as there are no measurable targets or output monitoring, and the payments are massively disproportionate to the requirements.

5.3 Agri-environment

Agri-environment is the only compulsory part of the second pillar of the CAP, although farmer and land manager participation is voluntary. Their aim is to support “the sustainable development of rural areas” and respond “to society’s increasing demand for environmental services” by supporting “agricultural production methods compatible with the protection and


Information from the RSPB for RSPB Hope Farm, Cambridgeshire, UK
improvement of the environment, the landscape and its features, natural resources, the soil and genetic diversity\textsuperscript{16}.

Agri-environment schemes are designed and implemented at the Member State or regional level and pay farmers to enter a management agreement that requires specific environmentally-friendly standards to be met. Contracts with farmers usually run for five-year but in some cases run for anything between 2 and 10 years.

Payments are annual and are calculated on the basis of costs incurred and income foregone, with the option of adding up to 20% for what are now known as ‘transaction costs’ but previously as an incentive payment. This formula is necessitated by the Green Box definition but fails to recognise the value of the environmental benefits delivered, and as a result it is not always attractive for farmers to enter AESs. Furthermore, whilst it works for improvement and enhancement work, it is not appropriate for maintaining systems that are already delivering environmental benefits.

Use of agri-environment varies widely between Member States. In some it is the most important part of their Rural Development programmes, receiving over 80% of total Rural Development funds in Sweden and over 60% in Austria and Italy, whilst it has been marginal for others such as the Netherlands, Greece and Spain.

AES design and therefore effectiveness in terms of delivery varies widely, and there is growing evidence that as well as there being a large number of schemes that are delivering for the environment, there is a significant problem with schemes that are failing on their objectives for a variety of reasons. 15 years of AES implementation in Europe has meant that we are able to specify what makes an effective scheme\textsuperscript{17}:

1. \textit{Targeting specific environmental benefits} – where schemes do not specifically target the delivery of a particular environmental benefit they do not deliver and can be little more than a disguised subsidy. One example is a scheme in Germany that pays farmers €100/ha not to use growth regulators.

2. \textit{Budget} – schemes frequently have insufficient budget to deliver their objectives. An example is the Castro Verde zonal scheme in Portugal, which has proved its potential to benefit a whole range of threatened bird species, yet its budget has been reduced causing a decline in the area under favourable management.

3. \textit{Good science} – schemes based on sound science, such as the Entry Level Scheme in England, deliver on their environmental objectives, but in the absence of good science they will not. The principal scheme in the Netherlands, for example, has been criticised for failing to protect meadow birds for this reason\textsuperscript{18} and is now being improved.

\textsuperscript{16} Council Regulation No 1698/2005


4. **Agronomically feasible** - Schemes must be simple and flexible and the management prescriptions should be tested for agronomic feasibility in a pilot scheme. Research into agri-environment schemes in the Netherlands, for example, found that management prescriptions that have proven to be effective under experimental conditions are not necessarily effective when implemented on real farms.

5. **Iterative design** - Schemes should be able to change and adapt as situations change, experience is gained and our knowledge develops.

6. **Monitoring** - All public policy, and particularly where it entails significant expenditure of public money, should have its outcome measured so that it can be evaluated against its aims and improved. Unfortunately, examples of schemes that are accompanied by a monitoring system are extremely rare in Europe.

7. **Stakeholder participation** - Where stakeholders have been involved in the development and implementation of agri-environment schemes, they have generally been more successful in terms of uptake and delivery.

Where these criteria are not followed, agri-environment will often be ineffective and can legitimately be challenged as an unnecessary subsidy. A well-known example of this is the “prime a l’hèrbe” scheme in France, which absorbs a very significant portion of the Agri-environment budget without delivering any significant biodiversity benefits.

Where these criteria are followed, agri-environment can be a critical tool for conservation, and there are already many examples of successful AESs that have prevented local extinction, such as the Cirl bunting scheme in England and the Great bustard scheme in Portugal, and delivered reductions in water pollution.

There is clearly a problem with mis-use of agri-environment that needs to be addressed, and we propose that these criteria could form the framework for all AES.

Agri-environment is critical for European conservation and for catalysing the move towards more sustainable farming systems, but it is clear from the agri-environment experience in the EU that without strict rules to ensure its proper use, the tool will be abused both accidentally and wilfully, as a means for disguising income or even production support.

A range of additional tools have been introduced by the Rural Development Regulation for the 2007-2013 period that are similar to agri-environment:

- Forest environment schemes, which is agri-environment for forest managers;
- Non productive investments, which pays for one off habitat improvements or the creation of ‘ecological infrastructure’; and,
- Natura 2000 payments, which can be used to compensate farmers for specific management prescriptions imposed in protected areas).

The above tools have not yet been implemented and it seems unlikely that they will be used on a large scale.

### 5.4 Less Favoured Areas

The Less Favoured Areas (LFA) scheme is a part of the Rural Development Regulation and is the other principle area of spend in Pillar 2 of the CAP, alongside agri-environment, receiving approximately one-fifth of Rural Development spending. In some countries, the role of LFAs is extremely important, with just seven Member States accounting for two thirds of total LFA
Agricultural Subsidies in the WTO Green Box: An Overview of Upcoming Issues from a Sustainable Development Viewpoint.

Expenditure. The scheme pays compensation to farmers in agronomically marginal areas for the additional costs and income foregone related to their ‘natural handicap’.

The predominant aim of LFAs is socio-economic, but the Rural Development Regulation also notes that the continued use of agricultural land will contribute to ‘maintaining the countryside’ and ‘maintaining and promoting sustainable farming systems’.

LFAs contribute to the prevention of the abandonment of traditional farming in marginal areas, which can often be critical to the provision of habitats for farmland biodiversity. Land abandonment is a problem in many parts of the EU, but particularly in the Mediterranean, Scandinavia and in the EU’s new Member States. In Estonia, for example, 10.1% of land is categorised as abandoned, and in Poland, 17.6%19. Land abandonment will cause significant biodiversity loss when semi-natural farming systems are lost. When semi-natural grasslands in Central and Eastern Europe are abandoned, for example, they are replaced by species-poor and more homogenous forest vegetation. Abandonment or extensification may also be positive for the environment, however, when it results in a reduction of damaging practices such as over grazing.

LFAs are targeted geographically and not specifically at farming systems that support high levels of biodiversity, which have become known as High Natural Value (HNV) farming. This means that intensive producers who may be causing environmental damage through, for example, overgrazing, receive the same payment as do HNV farmers. Even worse, farmers who have overcome their “natural handicap” through environmentally harmful practices such as irrigation expansion are still entitled to the same payment as farmers who keep practicing the traditional HNV management. Furthermore, LFA designation has not captured all HNV farming at risk from abandonment20 while it often includes areas where the problem is marginal. There has been no effort made as yet to monitor the environmental benefits and disbenefits of the scheme so that it can be better targeted at environmental delivery.

Approximately 1mn holdings and 33mn ha benefit from LFA payments, with average payments varying widely, from €20/ha in the UK to €180/ha in Finland21. Payment calculations also vary widely, with some countries opting for a simple flat rate payment, whilst others, such as Austria, make detailed calculations at the farm level. It has been shown that in those countries where payments are low and coarsely calculated, such as Italy and Spain, LFAs have little impact on whether farming continues in an area or not, but where payment levels are higher and accurately calculated, such as Austria, they can play an important role in maintaining agriculture22.

In summary, the environmental benefits of the LFA scheme are indirect, inconsistent and incidental. The LFA scheme has a great potential to support HNV farming and the environmental benefits these systems deliver, but significant changes would be required, both in terms of the designation criteria and conditions attached to payments, which, together, could allow the reorientation of the scheme to the delivery of specific public benefit.

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22 Institute for European Environmental Policy, “An evaluation of the less favoured area measure in the 25 member states of the European Union”. 2006
5.5 **Afforestation**

Part of the Rural Development Regulation, afforestation schemes, which make annual payments for the establishment and maintenance of new forests, have been popular with both Member States and farmers across the EU. Around 1mn ha of forestry plantations were established between 1994 and 1999 under the original programme\(^\text{23}\) and more have been established since.

Subsidies for afforestation were originally introduced as part of an effort to reduce overproduction in EU agriculture. The scheme is now presented as an environmental and climate change mitigation scheme, although it is also motivated by socio-economic aims through the establishment of productive forest.

Whilst it is justified as an environmental scheme, the success indicator of most afforestation schemes in Member States is forest cover, not increase biodiversity, enhanced ecosystem services or improved greenhouse gas balance. Indeed, EU legislation in this area appears to be based on the incorrect assumption that all forestry delivers in these areas.

In reality, afforestation can have both positive and negative environmental impacts\(^\text{24}\). When carried out on small scale within intensively farmed landscapes, afforestation can be beneficial for biodiversity by increasing landscape heterogeneity and habitat diversity. It can also play a positive role in watershed management and increase carbon storage. On the other hand, poorly located and/or designed afforestation schemes can have devastating effects on biodiversity. When trees are planted on valuable open habitat, such as grassland, within a few years they lead to the loss species typical to these habitats. In the worst cases, afforestation schemes establish exotic species plantations that have no biodiversity value at all. Poor design and siting of afforestation can also result in negative impacts on soil and water quality. Pine and eucalyptus plantations established in upland areas of the Mediterranean, for example, can lead to increase in soil erosion and water run off as a result of the destruction of herbaceous and scrub layers, which provide more effective protection\(^\text{25}\).

From a biodiversity conservation perspective, Europe holds many threatened species that rely on open habitats, whilst the most endangered forest species are those that rely on old growth forests and are unlikely to colonise newly established forests for decades, if not centuries. Furthermore, afforestation is naturally happening in many parts of Europe without the aid of this scheme as a result of large-scale land abandonment\(^\text{26}\).

Payments for afforestation schemes reflect establishment costs and income foregone, not environmental benefits. Afforestation payments are often more attractive than agri-environment payments, and are less demanding, and offer longer commitment periods. This means that in many areas agri-environment is losing out to afforestation.

Given the high chance of causing environmental harm through afforestation, the scheme as it currently is can hardly be called an environmental scheme, although some benefits do occur in

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\(^{23}\) Council regulation 2078/92


\(^{25}\) de Wit and Brouwer, “The effect of afforestation as a restoration measure in a degraded area in a Mediterranean environment near Lorca (Spain)”; 1997, Transactions of the Wessex Institute.

various areas. Stricter conditions and targeting to ensure important land-uses are not lost and that siting is optimal could help address this.

5.6 Rural Development Axes 1 & 3

At EU level, in the 2000-2006 period, about 40% of RD funds where devoted to farm, infrastructure and other investment schemes outside the “environmental axis”\(^\text{27}\). This proportion is likely to increase as most new Member States are choosing to put most of their Rural development allocation into the competitiveness axis. Funds allocation is extremely variable among Member States. In the 2007-2013 period Member states are required to respect a minimum spending threshold of 10% on axis I, 25% on axis II and 10% on axis III. In practice hardly any Member States is likely to allocate more than 15-20% of RD funds to axis III (diversification and quality of life). While some countries such as Austria and the UK will allocate the maximum allowed for axis II, most countries currently seem to favour the competitiveness axis. This is particularly evident in the new Member States where most of the budget will be allocated to this axis, with environmental spending limited in practice to the EU required minimum in the case of Bulgaria and Romania.

By definition measures under axis I and III do not have environmental objectives but rather socio-economic ones. However, the new RD Regulation asks member states to make sure all three axis are coherent with each other and strongly encourages the creation of synergies through, among other tools, the obligation of carrying out a Strategic Environmental Assessment on new plans. Axis III includes in the new period also some provisions for financing management plans for protected areas and other options that could be used to promote biodiversity conservation.

Very little systematic analysis of the environmental impacts of these measures is available. However, widespread anecdotic evidence from environmental NGOs suggests that many such investments are causing significant damage to biodiversity\(^\text{28}\). Most Member States concentrate investments on agricultural intensification. Some common investments are particularly problematic. Irrigation expansion, often financed through rural development measures has caused widespread destruction of steppic habitats in the Iberian Peninsula and elsewhere in the Mediterranean region. Investments in drainage improvement are particularly popular among new Member States of eastern and central Europe, often leading to the degradation of wet meadows and the removal of biodiversity rich vegetation strips that developed on soviet era ditches that have fallen into disuse. Expansion of forest roads and other infrastructure can increase habitat fragmentation and disturbance to sensitive wildlife.

On the other hand, a wide variety of RD measures has been also used for environmentally benign rural development. Axis III measures have been used in many countries to install visitor facilities such as hides and interpretation panels that increase the accessibility and amenity value of natural habitats. Diversification measures have been used to help farmers move into nature linked rural tourism. Axis I measures can play a key role in increasing the viability of high nature value farming by helping farmers increase their income from traditional products through on farm processing, direct marketing and product promotion.

\(^\text{27}\) European Court of auditors, “Special Report No. 7/2006 concerning Rural Development Investments: Do they effectively address the problems of rural areas?”

\(^\text{28}\) Keenleyside, “Farmland birds and agri-environment schemes in the New Member States”. 2006, A Report for the RSPB.
support to certification processes and by providing small “marginal” farmers with infrastructures they could not afford to pay for (such as watering points for extensive grazing).
6 What changes are needed to CAP subsidies?

The above analysis suggests that within the limits of current Green box definition, there is great scope for making the CAP more environmentally friendly. Beyond the obvious need to phase out environmentally harmful subsidies, much could be done to ensure that Green box compatible subsidies actually deliver for the environment in general and biodiversity in particular. We suggest this would require:

A. Shifting funds from untargeted subsidies to environmentally targeted schemes with a much increased focus on biodiversity conservation.

B. Better design and implementation of Agri-environment and other Rural development schemes.

C. Effective coherence of environmental schemes with socio-economic ones (RD axis I and III).

6.1 Retargeting subsidies

As seen above, under the current system it is often very difficult to quantify schemes’ environmental benefits. It is thus almost impossible to assess the portion of current CAP budget that is delivering environmental goods. However, it is safe to state that only a very small portion of subsidies is somehow targeting environmental conservation. Investment in biodiversity conservation appears to be outright marginal. An educated guess, based on the facts explored above, is that schemes delivering direct benefits to biodiversity account for something between 5 and 10% of current CAP budget. It seems thus clear that a shift of funds from direct payments to Rural development’s axis II could hold a huge potential for the funding of environmental schemes. The many positive experiences gained with agri-environmental schemes could be up scaled to the point of producing significant landscape level environmental improvement, including a reversal of the decline of farmland birds and other biodiversity.

6.2 Better design and implementation

As discussed above, many existing schemes are being undermined by confused objectives, lack of clear and verifiable target, incomplete monitoring and other implementation problems. If Agricultural subsidies are to play a positive role in environmental conservation and restoration, they must be much more effective. Widespread evidence from existing schemes shows that there are some overarching principles that can significantly increase a scheme’s effectiveness. The following principles have been drawn up for agri-environment but are really pertinent to almost any Rural development measure. We argue that EU policy must ensure all schemes follow these criteria. The new Rural development Regulations have already mandated much of these criteria to be implemented by Member States but evidence emerging from the programming process suggest that many Member States are still failing to follow them.

Schemes must rewards farmers for delivering specific public goods. Subsidies are paid for by taxpayers and should therefore be used to deliver benefits to the public. Benefits include environmental goods and services, such as a healthy environment, wildlife, and thriving rural

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29 Orèade – Brèche; “AEM evaluation – Report for DG Agriculture”. November 2005
30 Keenleyside, “Farmland birds and agri-environment schemes in the New Member States”. 2006, A Report for the RSPB.
communities, and are referred to as public goods. Any legitimate RD scheme should have a clear objective in terms of the societal benefit it aims to provide.

**Objectives must be clearly spelt out and expressed in terms of measurable targets.** All too often schemes have generic objectives that cannot be properly measured. These makes science based design impossible and increase the risk of misuse of scheme has hidden income support. Schemes should always have a specific measurable outcome. In the case of biodiversity, schemes should target particular species, habitats or ecosystem functions and these should be measured through the use of appropriate indicators. Targets should be set so that schemes actual success can be assessed. Schemes should also target the regions, areas, habitats and on farm locations where they will produce maximal benefit. A common problem is Member States will to spread support evenly among farmers rather than to maximise environmental outcome.

Schemes must be backed by a budget sufficient to deliver their aims. Spending money on a “good cause” is not enough. In the case of voluntary schemes, success can be achieved only if schemes are “competitive” with alternative economic incentives. This means that a scheme needs, as a minimum to cover the actual cost for farmers and include a reasonable transaction cost. In many cases, schemes premia are calculated on the base of incorrect assumptions or use regional average figures that might not be pertinent at farm level. Over compensation represents a waste of money and can raise questions as to the actual green box compliance (when schemes target specific types of production). Under compensation on the other hand, means schemes become unappealing for farmers and result in low uptake.

Schemes design should be based on good science. Agri-environment schemes attempt to deliver environmental gain through introducing changes in land management. Ensuring environmental benefits are created requires an understanding of the relationship between land management and the environment. Schemes based on good scientific design$^{31}$ and pilot scheme experimentation are much more likely to succeed than schemes that have been designed arbitrarily or just at theoretical level. Schemes that are not based on good science will often not deliver on their promises$^{32}$.

Management required should be agronomically feasible and practical. Scheme design should take into consideration both the environmental side and the farming aspects. Schemes should be finely targeted at the environmental problems they need to address, but at the same time easy enough to implement on the farmer’s side. They should also be easy to control during inspections.

Schemes design should be an iterative process. Monitoring of the environmental impact of schemes is necessary, and the results should feed into further design stages. No scheme can be perfect from its inception and in many cases environmental complexity means that real life systems behave quite differently from what would be expected. All schemes need to be based

$^{31}$ An example of a scheme based on good science is the Entry Level Scheme in England. This scheme gives farmers a variety of options, such as creating skylark plots, beetle banks, etc., all of which are based on detailed ecological study that means it is known that take-up of these options will deliver biodiversity gain. The scheme has also been previously piloted in four separate regions to test its practicability. Evans, Armstrong-Brown, and Grice,”The role of research and development in the evolution of a "smart" agri-environment scheme”. Aspects of Applied Biology, (2002) 67: p. 253-262.

on an iterative approach. The key to such approach is a well designed monitoring system that feeds back, in a transparent and binding way, into schemes’ design. The current gaps in monitoring systems mean that in many cases there is little understanding of the extent to which schemes actually deliver on their objectives. In many other cases, monitoring is carried out but results do not necessarily feed back into better scheme design.

Stakeholders, including farmers and environmental experts, should be consulted and involved throughout scheme design and implementation. Public authorities, and more in particular agriculture departments, rarely possess all the necessary knowledge for the design and management of environmental schemes. Precious knowledge is often found with environmental NGOs, environmental authorities, protected areas managers and academic institutions. Similarly, farmers who confront reality on the ground o a day to day level usually have important insight into schemes implementation. A wide stakeholder consultation process, not just limited to the initial programming phase is essential for schemes’ success.

6.3 Effective coherence of environmental schemes with socio-economic ones (RD axis I and III).

Socio-economic rural development subsidies should be linked much more closely with environmental subsidies. The first step should be a “do no harm” approach. No public money should be spent on promoting activities that undermine environmental objectives. Investments that lead to harmful agriculture intensification, destruction or degradation of valuable habitats, soil degradation or increase water use should be effectively excluded. The second step is to promote synergies between socioeconomic and environmental objectives. Much more focus should be given to High Natural Value farming systems. Much of Europe’s biodiversity depends on the continuation of traditional extensive farming practices that are now threatened by abandonment or intensification. Many of the areas where HNV farmland is concentrated coincide with less favoured areas where farming conforms natural handicaps and in many areas it is precisely the small marginal farmers at the edge of economic viability that are delivering much of the environmental positive externalities. Rural development should aim at revitalising the local economy around biodiversity conservation and landscape maintenance through their combination with sustainable tourism and recreation, high quality and specialty food production and economic diversification based on quality of life. A few key principles can be identified:

- Screening of all measures for harmful environmental impacts and exclusion of environmentally damaging schemes.

- Priority for axis I measures aiming at increasing the competitiveness of HNV farming systems (such as extensive upland grazing or pseudo-steppe fallow-cereal systems).

- Increasing competitiveness through higher added value rather than through increased production (investment in quality, labelling, marketing and local processing rather than in drainage, irrigation and land consolidation).

- Increased investment on axis III measures, in particular on extracting economic value from biodiversity and landscape assets through development of sustainable rural tourism and recreation, “re-branding” of marginal regions, etc.
7 What changes are needed to the Green Box criteria?

As we have seen, the current Green box definition allows for much greater investment in biodiversity conservation and environmental improvement in comparison with current EU expenditure on agriculture subsidies. It is likely that a much stricter implementation of Rural development payments as described above, would result not only in much better environmental delivery, but also in less scope for “Green box abuse”. The more a scheme is well targeted, explicitly science based and monitored for delivery, the less margin there is for designing it as a top up payment aiming at improving the competitiveness of certain commodities. We believe that improving environmental delivery and reducing “Green box abuse” can go hand in hand.

A system of more strict, transparent and accountable use of environmental payments would benefit the European environment, give tax payers value for money and ensure that payments classified as green box are not manipulated and used as cover for subsidies that are actually designed to favour particular farmers.

However, the current system is an obstacle for mechanisms designed to protect High Nature Value farming systems. Much of these systems are economically marginal and highly vulnerable in open markets, but their loss equates to a serious environmental loss. This market failure requires some form of public intervention. A number of possibilities are available:

1. Rural development investments targeted at HNV farmland. These would be permitted under the current green box definition.

2. Direct payments for the delivery of these public goods. Current Green box definition would require this payment to be based on income foregone, but this is inappropriate for these circumstances as so little income is earned in the first place.

This second point is pertinent not only to the EU, but to other countries that have economically marginal land providing public benefits that could be converted to deliver greater economic gain but at the expense of these public goods. Rainforests are such an example. They host a high proportion of the planets biodiversity, hold huge stocks of carbon and play a key role in climate stabilisation and water cycles. Devising an effective system to compensate forest owners and dwellers, or indeed forested developing countries for maintaining stewardship of vast intact tracts of forest is probably a key tool needed to halt the current deforestation crisis. A group of developing countries led by Papua New Guinea (PNG) and Costa Rica (called the Coalition for Rainforest Nations) has put forward such a proposal that would involve developing countries making commitments to limit tropical deforestation in their countries with developed countries paying for the scheme. The proposal was generally welcomed at the Conference of the Parties to the Climate Convention in Montreal in December 2005 and is currently under discussion by a group established under the Convention.

In the EU case, traditional extensive management is often uneconomic in modern open market context. Farmers are left with the choice of intensifying and joining global competition or abandoning. If HNV farming is to survive, public intervention is inevitable. Broadly speaking, public support can move along two lines. One is to support farmers in moving up market, abandoning the basic commodity market and specialising on market segments where HNV practice can be marketed for extra added value. Labelling, direct transformation and sale and combination of farming with tourism and recreation activities are such options. The second intervention line is establishing public payments for the delivery of environmental goods. In
this case, tax payers money is used to reward farmers for the delivery of public goods, i.e. positive externalities, such as biodiversity conservation, that are not paid for by the market. We argue that both approaches are need and must be combined. While the first type of support is broadly speaking covered by current Green box definition, the second presents important limits. Current Green box rules only allow payments based on income forgone formula. This makes it easy to compensate farmers for reverting from damaging practice but not for maintaining positive management. This logic is highly inefficient as it is widely recognised that it is much more efficient to conserve biodiversity where it’s still flourishing rather than restore it where it has been lost. The current system has also a strong element of injustice that erodes the social legitimacy of agri-environment payments. It is difficult to justify a system that pays people who have damaged the environment but fails to sustain people whose activity has been beneficial, when both are currently carrying out much the same kind of management. Basing payments on farmers previous income level, rather than on the public benefits they provide, also leads to a very inefficient investment distribution. Most funds end up in the most intensively farmed regions and farms rather, rather than where they would produce the maximum impact. We argue for a redefinition of Green box rules that would admit payments for environmental services, as long as such payments can be shown to be strictly related to the achievement of measurable environmental benefits.

If it is accepted that the only justification for agricultural support is to correct market failure and deliver public benefits whilst minimally distorting trade; then it follows that the green box should be defined according to these criteria. We therefore recommend that:

1. A second fundamental requirement is introduced, in addition to the current requirement that green box support has no, or at most minimal, trade-distorting effects on production. This should require green box support to be targeted specifically at delivering environmental and social benefits, i.e. ‘public’ benefits that are not already delivered by the market.

2. All payments currently notified as green box are reviewed by an independent authority and those that are shown not to meet either of these requirements are moved into the blue box.

3. Greater flexibility should be provided in the calculation of payments for environmental programmes, so that payments can be based on a combination of income foregone and the value of the social and environmental benefits they deliver. This would require a change to the wording in Annex 2 of the current Agreement on Agriculture, which, in its current form, restricts payments to income foregone, inhibiting the use of environmental programmes.

Finally, there is the question of equity. Green box reform should better shelter developing countries from rich countries dumping but also allow more space for public support programs targeting developing countries specific socio-economic and environmental needs. It is however clear that developed countries have considerably more funds available for green box payments than do developing countries. This, and the globalised nature of agriculture and agricultural externalities, suggests that it would be fair to require developed countries to make a contribution to green box payments in developing countries that is proportionate to spend

34 G20, “Review and Clarification of Green Box Criteria”. June 2005
within the country in question. This could mean, for example, that the EU would have to contribute 10% of the value of its total green box payments to an international fund such as the GEF that would then administer this money so that it is used for similar payments in developing and least developed countries. The need to reform the Green box and make its subsidies more transparent and fair has been stressed by developing countries and social NGOs. Ensuring public spending actually delivers public goods is a basic issue for good governance. Making EU Agriculture subsidies deliver for the environment is essential if the EU is to meet its political commitments to sustainable development, including the pledge to halt the decline of biodiversity. A review of the Green box along the lines exposed above could go a long way in the direction meeting all of these objectives.

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35 ActionAid, CIDSE, and Oxfam, “Green but not clean: Why a comprehensive review of Green Box subsidies is necessary”. Joint NGO Briefing Paper November 2005
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