EU CONCERTED ACTION: 'DEVELOPING CROSS COMPLIANCE IN THE EU: BACKGROUND, LESSONS AND OPPORTUNITIES (QLK5-CT-2002-02640)

EVALUATION OF CROSS COMPLIANCE: PERSPECTIVES AND IMPLEMENTATION

REPORT OF SEMINAR 4: GRANADA, SPAIN (19-20 April 2004)

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1. Introduction

This report is largely based on the presentations and discussions of the international seminar: 'Evaluation of cross-compliance' of the EU Concerted Action 'Developing Cross compliance in the EU- Background Lessons and Opportunities' (QLK5-CT-2002-02640) held in Granada, Spain, on 19-20 April 2004. This seminar was the fourth of six seminars programmed in the Concerted Action with the aim of analysing Cross Compliance as an instrument of agri-environmental policy in the context of new developments of the Common Agricultural Policy (CAP). It followed previous seminars held in Germany, The Netherlands and Denmark.

The recently approved Council Regulation Nº 1782 of 29 September 2003 'establishing common rules for direct support schemes under the common agricultural policy and establishing certain support schemes for farmers' represented a major piece of legislation setting up the direct payments' conditions to farmers and the various cross compliance requirements. Alongside, the EU Commission introduced Regulation (EC) No 796/2004 of 21 April 2004 'laying down detailed rules for the implementation of cross-compliance, modulation and the integrated administration and control system provided for in the Council Regulation (EC) No 1782/2003'. This distinctive policy framework resulted in the seminar being of unquestionable interest both from a policy making perspective and from an academic perspective. It granted also a wide-ranging discussion forum to the various stakeholders involved such as policy makers, government officials, environmental agencies' representatives and academics.

Following its essential purpose, the seminar brought together policy makers and government officials involved in the design and implementation of agri-environmental policies and cross-compliance measures (at national, regional and local levels), representatives of the EU-Commission, representatives of farmers' organisations, nature protection and environmental NGO's, scientists and researchers of academic institutions and the partners of the Concerted Action Project.

The main objective of the seminar was to exchange experiences and viewpoints among the different EU countries, the EU Commission and the different actors involved in policy making and policy analysis. However, within the structure of the Concerted Action, the distinctive feature of this seminar was to explore the potential of different analytical tools and models to analyse the environmental effects of cross compliance policies as well as their socio-economic consequences. Along this line, the specific objectives of the seminar were as follows.

- To investigate the potential of Cross Compliance as an agri-environmental policy instrument across EU countries and regions and the derived implementation costs, focusing on the specificities of the natural resource base and agricultural production of northern and southern EU regions.
- To examine models and analytical tools for assessing the socio-economic and environmental impacts of cross-compliance
- To identify options for the development of cost-effective and environmentally-effective cross-compliance schemes in the CAP
- To develop a conceptual and methodological framework for assessing the administrative costs associated with cross compliance

The seminar was organised in four sessions that included paper presentations followed by a summing-up discussion. The first two sessions were dedicated, respectively, to the update of cross compliance implementation from the perspective of the EU Commission and from the perspective of the Member countries. The following two sessions comprised the assessment of cross compliance implementation, starting, in session three, with an overall estimation of the related costs. It continued with the view of the environmental agencies and it was further completed with an assessment of cross compliance implementation utilising formal modelling methodologies and specific applied examples. Session four followed with an overview of cross compliance evaluation in an EU perspective, across production sectors and in specific geographical areas across the EU. Finally, the seminar ended with a general discussion and a comprehensive concluding synopsis.

Following the seminar's sequence of contents, the report is divided into six sections:

(1) The first section is an introductory part that reflects the organisation of the Concerted Action seminar, its objectives and participants as well as the linkages within the framework of the recent developments of the 2003 CAP reform.

(2) The second section is devoted to the Commission's views on the update of Cross Compliance implementation focusing on the main provisions encountered in the EC Reg. 1782/2003. These include the statutory management requirements that stem from eighteen legislative acts (Annex III of the regulation), and the good agricultural and environmental conditions (GAEC) to be defined by the member states in accordance with the common framework defined in the legislation (Annex IV). This section includes also the common implementing rules of the EU legislation, such as the various land use and farming obligations at Member State level and at farm level, the control system, the structure of sanction schemes for non-compliance and the requirements for the national implementation of the cross compliance policy.

(3) The third section follows-up on the second by focusing on the updating of cross compliance implementation in different member states. This section gives a cross-country comparative panorama of the implementation of cross compliance evidencing the different agro-environment settings, land use patterns, farming systems and environmentally sensitive areas. It starts with a historical background and the current developments of cross compliance across member states and continues with the details of the standards of Good Agricultural and Environmental Conditions established in the different member states. The section ends with an overview of the control system for cross compliance enforcement proposed by the different countries.

(4) The fourth section is centred on the assessment of cross compliance implementation, which was in fact the purpose of the Granada seminar within the Concerted Action, starting with an analysis of the benefits to society of cross compliance. Furthermore, this section addresses the public and private costs involved in the implementation of the policy programmes. It follows with an analysis of the use of formal modelling tools for the assessment of cross compliance policies, its cost-effectiveness in relation to other programs and its effects on environmental protection (erosion and water) and the socio-economic setting. The two last parts of this section focus on the impact analysis of Cross compliance, starting with a spatial analysis that gives primarily an overview at EU level in comparison with the implementation of agri-

environmental programs. The section is completed with an analysis of cross compliance impacts across production sectors and regional specificities (e.g. semi-arid agriculture in Mediterranean regions)

(5) The fifth section includes the bibliographical references and ***(6) section six*** includes two annexes with the Granada seminar program and the list of participants.

2. The EU perspective on the update on cross compliance implementation

2.1 The legislative framework overview

Cross Compliance is considered a major step for the inclusion of environmental considerations into the CAP following the EU trend that commenced in the 1992 reform. Cross compliance is regarded as one of the most promising instruments to integrate environmental concerns into the main stream of agricultural policy and to stress the enforcement of current legislation related to environment and nature conservation, animal health and welfare and food safety and quality (Baldock and Mitchell, 1995; Spash and Falconer, 1997; Petersen and Shaw, 2000). However, there are some less optimistic views of cross compliance based on its linkage with direct payments and the difficulties that arise in relation to the definition of the required standards as well as the administrative burden that may stem form the necessary control system (Whitby et al, 1998; Varela-Ortega et al, 2002). Besides, it has been argued that cross compliance may be used largely to encourage compliance with already existing EU regulations reflected in the related Directives. Unquestionably, cross compliance is considered as a valuable scheme to provide strong incentives for the development of environmentally friendly farming activities (Dwyer et al, 2000; Kraemer et al, 2003)

Based on the fact that EU member states include a wide range of varied ecosystems and consequently of farming systems and agricultural practices, the actual application of cross compliance is expected to vary considerably across member states (Brouwer 1999, Brouwer and Lowe, 2000)

The Commission's intention is to develop the common rules regulation and implementation requirements stressing the responsibility that all Member States have to assure the application of the different existing Directives. In fact, Member States have an obligation to ensure farmers actually comply with the specific requirements included in the Directives.

2.2 Main provisions of cross compliance

Council Regulation 1782/2003 establishes the main common provisions of cross compliance applicable to the direct payments regimes. Commission Regulation 796/2004 establishes the application provisions of cross compliance, modulation and an integrated system of management and control.

The main aspects of the cross compliance regulation can be presented as follows (de Angelis, 2004):

> *The general provisions of Cross Compliance in reg. 1782/2003 establish (chapter 1, article 3) that any farmer receiving direct payments should observe the* ***statutory management requirements*** *referred to in Annex III and* ***Good Agricultural and Environmental Conditions*** *(GAEC) (as defined in article 5). The competent national authority shall provide the farmer, by 2005, with the list of statutory management requirements and the good agricultural and environmental condition to be respected.*

At the same time, in case of non respect of the conditions due to specific practices under direct responsibility of the farmer, there will be a reduction or cancellation of the direct payments to be granted in the calendar year in which non-compliance occurs (article 6). Reduction or exclusions shall only apply if the non-compliance relates to an agricultural activity or an agricultural land within the holding, including the parcels on set aside. Sanctions must take account of the severity, extent, permanence and repetition of the non- compliance found. The percentage of reduction applicable depends on the negligence or intentionality of non-compliance (article 7)

To assure the application of the Regulation, Member Sates are required to carry out a control system establishing on the spot checks to verify whether the farmer complies with the statutory management requirements and the minimum requirements for the GAEC. For this purpose, Members Sates are required to present a sampling plan for their farm holdings. In addition, Member Sates may utilise their existing administration and control systems which must be compatible with the integrated administration and control system.

- **Statutory management requirements (Annex III)**

The SMR of the Cross Compliance regulation are based on 18 Community legislative acts in the areas of public, animal and plant health, environment and animal welfare presented in Annex III. Applicable from January 2005, five of these Council Directives are related to the environment and apply as implemented by the Member States:

(i) Wild Birds Directive (79/409/CEE)
(ii) Ground Water Directive (80/68/CEE)
(iii) Sewage Sludge Directive (86/278/CEE)
(iv) Nitrates Directive (91/676/CEE)
(v) Natural Habitats Directive (92/43/CEE)

- **Good Agricultural and Environmental Conditions (Annex IV)**

Member States will define, at national and regional levels, the minimum requirements for Good Agricultural and Environmental Conditions on the basis of the common framework set up in Annex IV. It should be taken into account the specific characteristics of climatic and soil conditions, existing farming systems, land use and rotations and farm structure. The common framework covers four issues, namely,

(i) Protecting soil from erosion,
(ii) Maintaining soil organic matter
(iii) Maintaining soil structure
(iv) Ensuring a minimum level of maintenance and avoiding deterioration of habitats.

Apart from the four issues covered in Annex IV, Reg. 1782/2003 establishes the obligation for all member States to maintain **land under permanent pasture.** Permanent pasture is considered to be the land used to grow grasses or other herbaceous forage either naturally (self-seeded) or through cultivation (sown) and that is not included in the crop rotation of a holding for five years or longer. Member states are required to maintain the ratio of the land under permanent pasture in relation to the total agricultural area of each country. At farm level, in case of a decreasing ratio, farmers

have the obligation not to convert land under permanent pasture into other uses without prior authorisation. If the ratio is decreasing by more than 10%, farmers who had previously converted land under permanent pasture into other uses are obliged to reconvert it back into permanent pasture.

- **Control system**

The competent authorities for the control of cross compliance are the Specialised Control Bodies that bear the responsibility to carry out the controls. However, member states may decide that controls regarding all or certain requirements are carried out by the Paying Agency, provided that the member state guarantees that the effectiveness of the control is equivalent to the control performed by the specialised control agency. The competent control authority is responsible for the assessment of the severity, extent, permanence and repetition of the detected non-compliance.

The competent control authority should carry out on-the-spot checks with a minimum control rate of 1% of all farmers submitting aid applications, unless already fixed by the legislation applicable. In the case of a significant degree of non-compliance in a given area of cross compliance application, the number of on-the-spot checks can be increased in the following control period. The purpose of the on-the-spot checks is to detect any potential non-compliance and to identify cases to be submitted to further controls.

The selection of holdings that form the control sample will be based on a risk analysis, according to the applicable legislation or appropriate to the given requirements. The risk analysis can be based on a single farm, on specific farm categories or on geographical zones. The competent control authority has to elaborate a control report for every on-the-spot control and the farmer should be informed of any observed non-compliance.

- **Sanction system**

The sanctions applied for non-compliance should consider the severity, extent, permanence and repetition of the infraction. The Paying Agency is the competent authority bearing the responsibility for the fixing of reductions or exclusions in individual cases, based on a complete overview of the control results. Non-compliance is determined as a consequence of any checks carried out by the competent control authority or after having been brought to the attention of the competent control authority in whatever other way.

The Paying Agency will calculate the reduction of payments based on the negligence or intentionality of non-compliance. In the case of negligence, during the first year in which non-compliance has been detected, the reduction of the overall amount of direct payments can reach 3%. This figure can be reduced to 1% or increased to 5% on the basis of the assessment provided in the control report. In the case that non-compliance has been detected in different areas, reductions are to be cumulated up to 5% as a maximum. Repeated non-compliance in following periods would result in the reduction of the percentage of the first non-compliance (or the previous repeated non-compliance) multiplied by the factor three up to 15% as a maximum. Once the maximum percentage reduction has been reached, any further infringement of the same obligation will be considered as intentional.

Intentional non-compliance will result in a reduction by 20% of the overall amount of the direct payments which may be reduced to 15% or increased to 100% on the basis of the assessment provided in the control report. In the case that intentional non compliance relates to a particular aid scheme, exclusion from the aid scheme in the following calendar year would apply.

3 The Member States perspective on cross compliance implementation

3.1 Historical background and current developments

The Commission's intention to work with a common rules regulation and on a common implementation of cross compliance poses a great difficulty to member states. In fact, member states face a policy designed at EU level with a common framework and intend to adjust it to the situation of 15 different countries with variable farming systems, environmental problems, agro-climatic conditions, regional differences and institutional arrangements. Many of the member states are trying to address similar environmental problems with different policy (e.g. land abandonment in France) and are attempting to define verifiable standards and find indicators that are most easily measurable. A major concern among member countries is the mounting administrative costs inherent to the application of cross compliance policies and the necessity to carry out controls with insufficient resources. The communication of cross compliance measures to the farmers is another source of national concern in many countries yet acting in a transparent manner seems to be a major requirement for a successful application of this policy.

Most countries have already enacted the correspondent **national legislation** to address cross compliance at national level. The countries with regional or federal political structures reflect the position of the regions in their legislative acts. In Germany (Prinz, 2004) an act on cross-compliance was presented by the Federal Government in January 2004 and after the parliamentary procedure was adopted in July 2004. The act sets out a framework for co-operation between paying agencies and the specialised control bodies and includes the authorisation for the Federal Ministry to lay down, together with the Bundesrat (2nd chamber of the federal parliament where the Länder are represented), detailed rules in relation to the issues included in Annex IV of Council Regulation No. 1782/2003 and permanent pasture.

Spain is elaborating a Royal Decree (Garcés, 2004), to be discussed with the regional governments at the end of 2004, which includes general compulsory requirements in several agricultural and livestock activities that reflect the major environmental problems in the country, such as soil erosion, lack of organic matter, shortage of water, emissions of pollution and grassland and forest fires. The measures include the prevention of burning of stubble, protection of water courses (especially over-exploited aquifers), animal disease eradication plans, secure manure tanks etc. In Greece (Dimipoulos, Vlahos & Louloudis, 2004) a new Code for Good Agricultural practices was introduced and in France (Godart, 2004) national legislation will be in place by the end of 2004 after a detailed calendar of consultations with the farmers' representatives.

3.2 Good Agricultural and Environmental Conditions: Standards for Annex IV of Reg 1782/2003

Most countries have established, or aim to establish national regulations and standards for Annex IV. In some instances these standards might not fit into the specific characteristics of the different areas or habitats which may partly off-set the environmental benefits of cross compliance. However, in spite of the general feeling that there is a necessity to specify detailed standards, as in most cases a general rule does not apply to a particular area or habitat, an excessively high number of measures will increase the administrative costs of control. For this reason there seems to be an incentive among member states to define low and simplified standards in order to reduce the control costs. In fact, countries like Spain and Germany have chosen to define specific practices rather than levels of conservation that are more difficult to monitor. These countries have set up detailed standards (compulsory or forbidden practices, indicators of damage, exceptions etc.) for the four main issues included in Annex IV, namely, soil erosion, soil organic matter, soil structure and maintenance of habitats.

Other countries like France have relied mostly on the existing national legislation on Good Farming practices or cross compliance for irrigated agriculture by defining a reduced number of measures. Greece has developed a new code for Good Agricultural Practices applying only to aids in less favoured areas and under the considerations that cross compliance measures in Greece are restricted to the three Mediterranean crops, namely olives, vine and cotton as they account for 70% of the total amount of direct payments and 72% of all beneficiaries.

Table 1- France : GAEC Measures for Annex IV of Reg. 1782/2003

ISSUES	PROPOSED MEASURES
Soil erosion	Identification by farmers of their plots (erosion risk)
Soil organic matter	Non burning of stubble
Minimum level of maintenance	Specific measures for each land use • Cultivated land: current rules • Set aside: current rules • Pastures: minimal pasture or one cut/ year, non-permitted weed grass and scrubs • Land in « other uses » : soil covering with seeding a specific cover , non permitted weed grass and scrubs, limited use of fertilisers and pesticides, respect of the authorised period for cutting

Source: Godart, S (2004), Update on French Cross- Compliance. Ministry of Agriculture, Paris

Table 2- Germany : GAEC Measures for Annex IV of Reg. 1782/2003

ISSUES	PROPOSED MEASURES
Soil Erosion	Minimum soil cover depending on slope of arable land • Slope below 2 degrees (no to little soil erosion risk):no requirements; • Slope between 2 and 10 degrees (medium erosion risk): 50 per cent of soil must be covered; • Slope above 10 degrees (high erosion risk): 100 % of soil must be covered; Retain terraces.
Soil Organic Matter and Soil Structure	• Crop rotations must comprehend at least three crops (each crop at least 20 per cent). • Exception: a farmer has to prove either with a humus balance or with a ground survey that the humus content of the soil remains at a healthy level, to keep the soil structure in good order • The burning of stubble is prohibited.
Maintenance of Habitats	Arable land: • A seed mixture containing at least 3 perennial flowers has to be sown at least every third year. • The grass has to be mulched every year. Permanent pasture • The grass has to be mowed every second year and the farmer is obliged to remove the grass from the land. General obligation • not to mow or mulch between April and mid of June Standards for landscape features that have to be retained: • Hedges (minimum length 15 m) • Tree rows (minimum length 50 m or 5 trees); • Field woods (25 to 2500 m2); • Single trees that are protected by the German Federal nature conservation act Wetlands that are protected by the German Federal nature conservation act.

Source: Prinz, C (2004), Update on Cross-Compliance Implementation – Perspective of Germany. Federal Ministry of Consumer Protection, Food and Agriculture. Berlin

Table 3- Spain : GAEC Measures for Annex IV of Reg. 1782/2003

ISSUES	PROPOSED MEASURES
Soil Erosion	Prohibition of plough and farming along the slope • Percentage of steepness depending on soils climatology and green cover • Exceptions based on parcel size and shape MEASURE FOR PERMANENT CROPS • Permanent Crops (olive and nut trees and vineyards) on slopes higher than 10%: Prohibition of any work • Very demanding rules: Removal of marginal trees only under authorisation.
Soil Organic Matter	MEASURE FOR WINTER CEREALS: • Prohibition of farming the soil from the harvest to 1st September, date of pre-sowing time • Date exceptions based on climatic variability and soil typology, under regional authorities criteria MEASURE FOR PERMANENT CROPS: • Compulsory maintenance of vegetation row lines on specific dates on slopes higher than 5% • Risk of run-offs varies with soils and annual rainfall • Regional authorities will establish the dates MEASURE FOR SET ASIDE LAND: • Compulsory maintenance of an appropriate green cover • Definition of appropriate green cover • Working traditional practice will be established by the regional authority
Soil Structure	• Prohibition of working or driving on swamped / flooded or snow covered land • Exceptions in case of harvest or cattle caring • Indicator based on the wheel track depth
Maintenance of Habitats	Minimum livestock stocking rates • Six different stocking rates established for six agro-pasture systems identified • Difficult to check real grazing • Annual average, but pasture capacity varies with season and climatology Avoid deterioration of pasture • Undergrazing indicator: scrub invasion • Invasion rate depending on pasture (grassland, bushy, arboreal pasture....) • Slow evolution : difficult annual evaluation Avoid deterioration of grassland • Undergrazing indicator : percentage of foreign forage and bush species • Overgrazing indicator degradation or lack of forage plants Avoid deterioration of bushy and arboreal pasture • Undergrazing indicator: percentage of grazing vegetation on the land at the end of the production season • Overgrazing indicator : degradation or lack of forage plants

Source: Garcés, B (2204) Cross compliance in Spain. Ministerio de Agricultura, Pesca y Alimentación. Madrid

3.3 The Control System

The control system is one of the major concerns of national authorities for the application and enforcement of cross compliance measures and therefore it features different proposals across member states. Decentralised countries show greater emphasis on the regional authorities as is the case of Germany where the German Länder will establish the authorities which will be the competent authorities for controls relating to cross-compliance. Special working groups have been developed with experts from the paying agencies and the specialised bodies. Members of these working groups are the Federal Ministry of Consumer Protection, the Federal Ministry for the Environment and the Ministries of the Länder (Agriculture, Environment and Health). These working groups have established general procedures such as selecting the farm sample to be inspected, the risk analysis, the control report, the sanctions, and the exchange of information between the paying agencies and the competent control authorities.

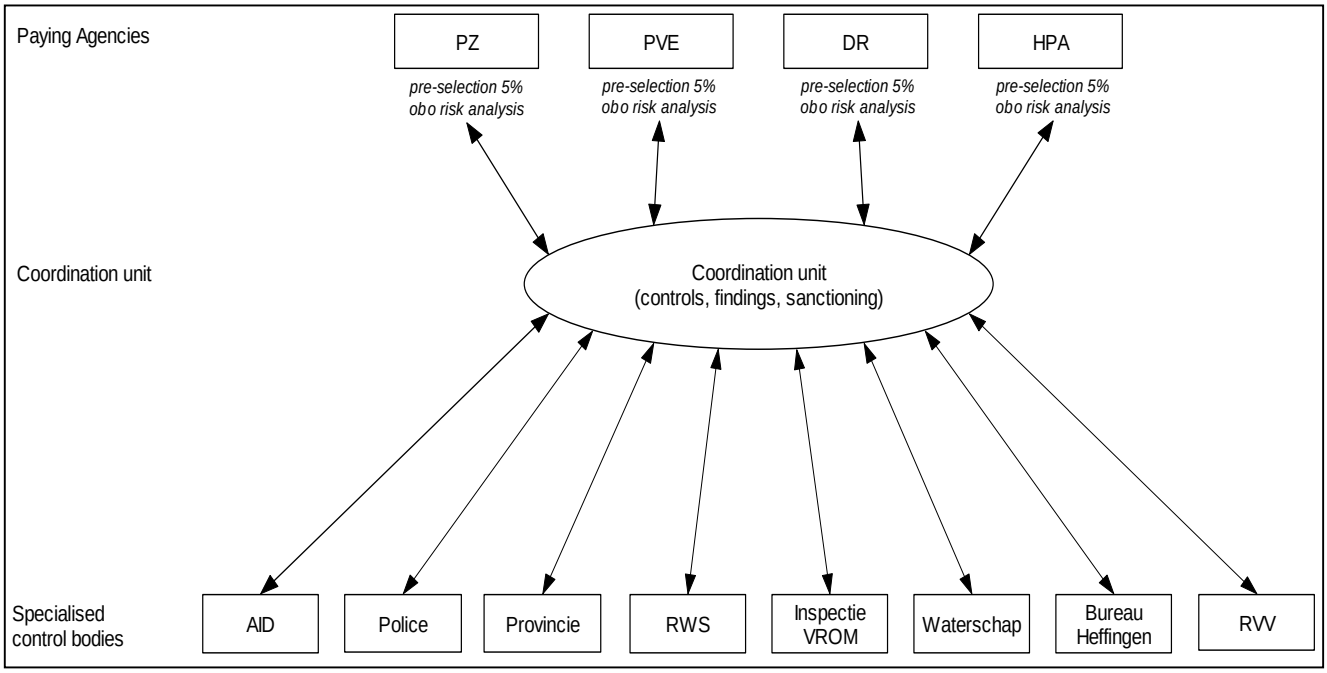
In addition, Germany has developed a 'two pillar' control system based on (i) systematic checks, based on a risk analysis and (ii) separate checks, carried out independently of the systematic checks. The intention is to cover all legal obligations resulting from the cross compliance regulation with appropriate verifiable standards. The systematic checks cover several issues such as the protection of groundwater (by checking the storage facilities for pesticides and mineral oil that should have a solid ground and have to be covered to avoid discharge of dangerous substances), the sewage sludge and the nitrate directive (by determining the nitrogen fertiliser needed, taking into account the kind of crop grown and the annual nutrient balance). These checks cover also the retention of landscape features which varies across regional sites and Länder.

In Spain, the control of cross compliance measures is carried out by the competent control authority that must perform the checks, including on-the-spot checks. This agency transfers the control report to the Paying Agency and it includes the assessment of the severity, extent, permanence and repetition of the non-compliance cases. France follows a pattern in which the specialised control bodies are part of the national 'public health' domain, such as veterinary services (DDSV) and plant protection services (SRPV) that have to report to the coordinating authority. These, in turn, transfer the information to the paying agency which applies the reduction rate for each of the direct payments' scheme.

The Netherlands has proposed two different models considered the most suitable structure and organisation of the cross compliance controls for the country's characteristics; a decentralised and a centralised option. In the decentralised model (Figure 1) the controls are carried out by each different regular and competent control body, 9 in total, each in their own field of expertise and responsibility. Although this model includes a coordinating unit, the Ministry of Agriculture does not have primary responsibilities in 7 of the control bodies meaning that they can establish their own priorities. In this case, there is no guarantee for a EU-proof control system and the control rate will be much higher than the established 1%. In the case of the centralised model (Figure 2), the controls are all carried out by the paying agency, which is assisted by a technical service. Although this system is more costly (about 40 hours per farm)

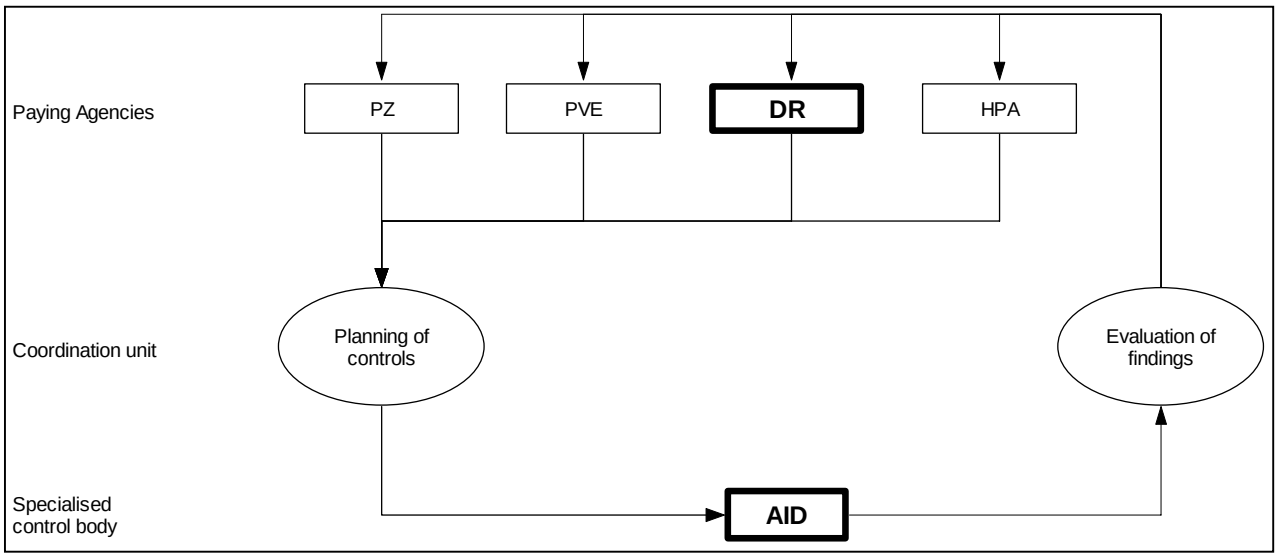
and needs extra expertise, the control rate remains around 1% and an EU-proof control system is guaranteed.

Figure 1 : The Netherlands
OPTION 1: CONTROL BY EACH COMPETENT SPECIALISED CONTROL BODY:



Source: Brand, H. (2004): Cross Compliance, the Dutch approach. Ministry of Agriculture, Nature and Food Quality. The Netherlands

Figure 2: The Netherlands
OPTION 2: CONTROLS ALL BY THE PAYING AGENCY



Source: Brand, H. (2004): Cross Compliance, the Dutch approach. Ministry of Agriculture, Nature and Food Quality. The Netherlands

4 Policy analysis: Assessment of Cross Compliance Implementation

4.1 Benefits of cross compliance to the Society

The assessment of cross compliance implementation is still in its initial stages but there is an increasing concern among public authorities and farmers about the high costs involved in the application of cross compliance.

On the other hand, the benefits of cross compliance might be greater than expected but difficult to measure. In fact, cross compliance entails the production of positive externalities, such as environmental goods, which, by their nature, are difficult to measure and quantify. Cross compliance can be regarded as a long-term outcome that will assure the preservation for future generations of the long-term production potential of agriculture's natural resource base (e.g soils an water).

In specific terms, cross compliance brings additional benefits to society (Baldock, 2004) in the form of nature conservation, such as decreased risk of erosion, less water pollution and eutrofication and improved maintenance of natural and historical features on farmland. Other benefits relate to societal organisation, such as decreased administrative expenditure, improved cooperation between various authorities, improved awareness of the tax expenditure and decreased expenditure on Agri-environmental schemes. However, the costs and benefits of cross compliance may vary greatly across farms due to the variability of farm types, the availability of labour and the farmers' flexibility to adopt the required measures (Bartram, 2004)

4.2 The public and private costs of implementing Cross Compliance

Cost involved in cross compliance can be divided into two broad categories, namely public sector costs to the administration and private costs to the farmers to comply with the regulation. Administrative costs are transaction costs to the public sector related to the design, implementation and enforcement of cross compliance measures. These costs are fixed and variable. Fixed costs relate broadly to the setting-up of an integrated system of management and control and variable costs relate to the on-the-spot checks.

As a first approximation, it has been reported that in the UK, the costs related to developing information materials and guidebooks for producers are around £50K -£70K for every new advisory guide (€71K to €100K) (DEFRA, 2004; Baldock, 2004). In relation to control costs, the estimated time required for on-the spot controls would be 60-80 hours per farm in the Netherlands and 2-3 days per farm in Sweden (Baldock, 2004). In general, it is expected that fixed costs of cross compliance will tend to be high although the establishment of a new management system can be considered as an initial investment whose cost can be recovered along an extended period of amortisation. In turn, it is expected that variable costs (on-the-spot checks) will be low relative to the total amount of direct payments.

In general terms, costs and potential savings of cross compliance can be summarised in the following items (based on Baldock, 2004)

Type of costs of cross compliance

- Costs to farmers/producers of complying with measures on the ground

- Costs to farmers of demonstrating compliance
- Costs to farmers in cases of non-compliance
- Costs to the public sector of designing, implementing and enforcing measures
- Costs of administration of support measures
- Potential costs of disallowance

Type of potential benefits of cross compliance

- Potential savings from improved compliance
- Potential savings from reduced expenditure in Agri-Environmental schemes
- Improved environmental conservation and reduction of environmental damages
- Improved maintenance of natural and historical features on farmland
- Potential reduction in the administrative expenditure
- Potential improvement on the co-operation between various authorities

Table 4 summarises the administrative costs and the costs to the farmers of cross compliance measures:

Table 4 – Type of costs of cross compliance

TYPE OF COST	ISSUE

PUBLIC COST TO THE ADMINISTRATION	• Coordination
	• Additional staff
	• Staff displacement
	• Staff training
	• Establishing data where it is not available:
	  • Permanent pastures
	  • Landscape and historical features
	• Logistics of additional controls
	• Additional reporting requirements, data archives etc.
	• Developing information materials and guidebooks for producers
	• Developing advisory services
	• Costs of providing non-compliance evidence
	• Costs of handling appeals
	• Prosecution costs
	• Disallowance on a national level

PRIVATE COST TO FARMERS	• Preventing soil erosion:
	  • Minimum soil cover
	  • Minimum land management conditions
	  • Retaining existing terraces
	• Protection of soil organic matter:
	  • Standards for crop rotations
	  • Arable stubble management
	• Protection of soil structure:
	  • Appropriate machinery use
	• Minimum level of maintenance:
	  • Minimum livestock stocking rates or/and appropriate regimes
	  • Protection of permanent pasture
	  • Retention of landscape features

	• Avoiding the encroachment of unwanted vegetation on agricultural land and the land taken out of production • Management time to understand the requirements and to identify habitats/areas of farm activity to which the cross compliance apply • Training for staff on larger farms • Training costs of providing evidence, documentation required, time required to assist controls • Further investment e.g. in manure/ slurry storage facilities

Source: Baldock, D (2004) Assessing implementation costs of cross compliance. IEEP, London

4.3 Cross Compliance and environmental protection: a modelling approach

The use of a modelling methodology can be a useful tool for the assessment of cross compliance policies. In particular, models prove to be adequate when analysing the comparative cost-effectiveness of cross compliance as a policy option compared to other types of agri-environmental policies.

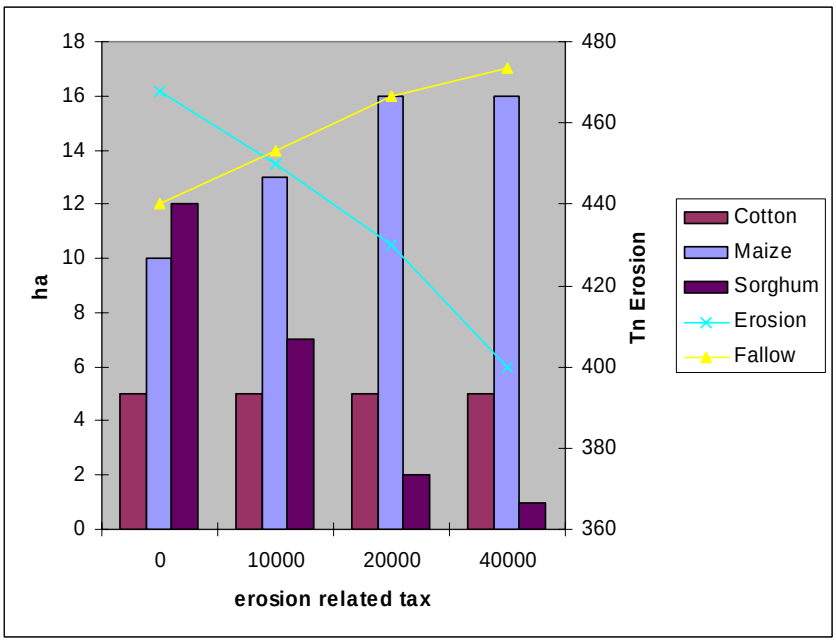
The purpose of models for policy analysis is to carry out ex-ante evaluations of the impacts of a policy option and derive appropriate conclusions for policy design using simulation techniques. Adequate models can thus help to identify operational and efficient ways of implementing cross compliance by, for example, figuring out the level of income loss to the farmers by complying with certain measures and how externalities can be avoided. However, models are simplified representations of the farmers' reality, are limited to specific site conditions and may not include all the relevant factors that affect the farmers' decision process such as the structure of property rights.

Models are based on farm typologies and require a detailed representation of technologies available, the physical constraints, the environmental considerations, as well as all relevant economic and policy factors. The purpose is to have a complete design of the alternatives that a farmer can adopt facing a policy scenario and analyse the response of the farmers on the environment and on their own production capacity.

Models for control of erosion damage:

The environmental factors can be best represented by the combination of biophysical models and economic models that can evaluate the impacts of a given policy or measure on the environment (e.g. erosion) and on the farmer's economy (Deybe, 2004). In the case of erosion control, models show that cross compliance measures can induce the elimination of soil erosion. Direct payments without a counterpart might induce undesirable effects. But if direct payments are linked with less eroding techniques (based on self declaration and checking), the results can be adequate. The amount of payments should be estimated accurately for each situation though, to avoid externalities. The other alternative to avoid erosion damage would be the taxation of "eroding" techniques, based on self declaration and checking. Fixing a tax as a function of the erosion generated by the crops might produce a change in land use and erosion might decrease. The results are similar when the tax is associated with the rate of erosion due to the technology utilised (Figure 3).

Figure 3 – Potential Application of an Erosion tax

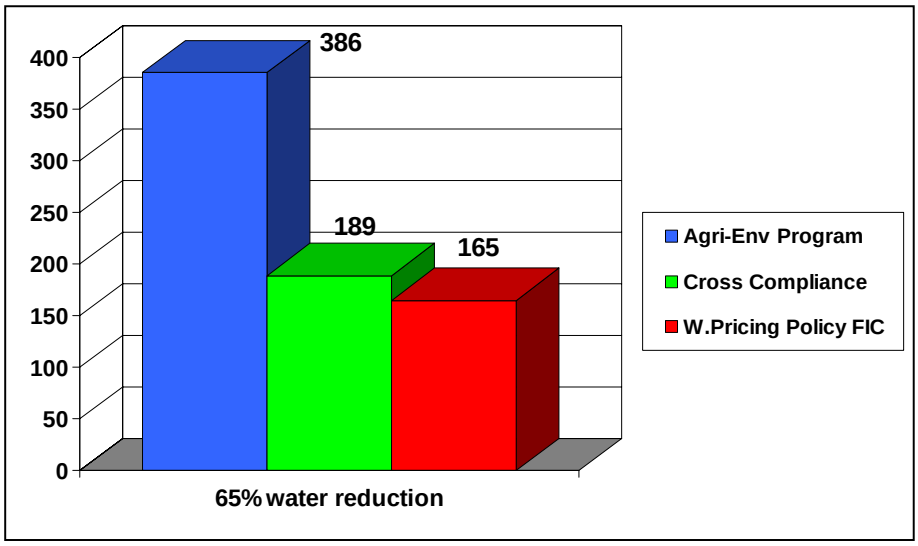


Source: Deybe, D (2004): Cross-Compliance assessment: modelling and policy analysis. DG RTD. EU Commission, Brussels

Models for conservation of water resources: The modelling approach has proven to give valuable insights for the comparative assessment of cross compliance policies for water conservation in Spain's central plateau (Varela-Ortega et al, 2002; Sumpsi and Varela, 2000). The overuse of water for irrigation in Mediterranean countries has been reported as one of the major environmental impacts in the southern EU member states (Baldock et al, 2000). Consequently, the need to seek cost-effective polices to address the overexploitation of groundwater sources and protect associated wetlands has been a major source of concern in many areas (Baldock et al, 2000; WWF, 2000; Varela et al 2002)

As compared to other type of water conservation polices, such as the agri-environmental program applied in the area, cross compliance is proven to be more cost effective. In fact, the desired target of reducing water consumption by 70% to preserve valuable wetlands is achieved at a considerably lower public expenditure than in the case of the currently applied agri-environmental program (Figure 4). Therefore, a desirable balanced integration of environmental objectives into policy programs is more effectively achieved by Cross-Compliance policies than by other types of equivalent programs aimed to conserve water resources (Varela, 2004).

Figure 4 – Spain: Cross compliance comparative assessment
Public Expenditure for water conservation policies (€/ha)



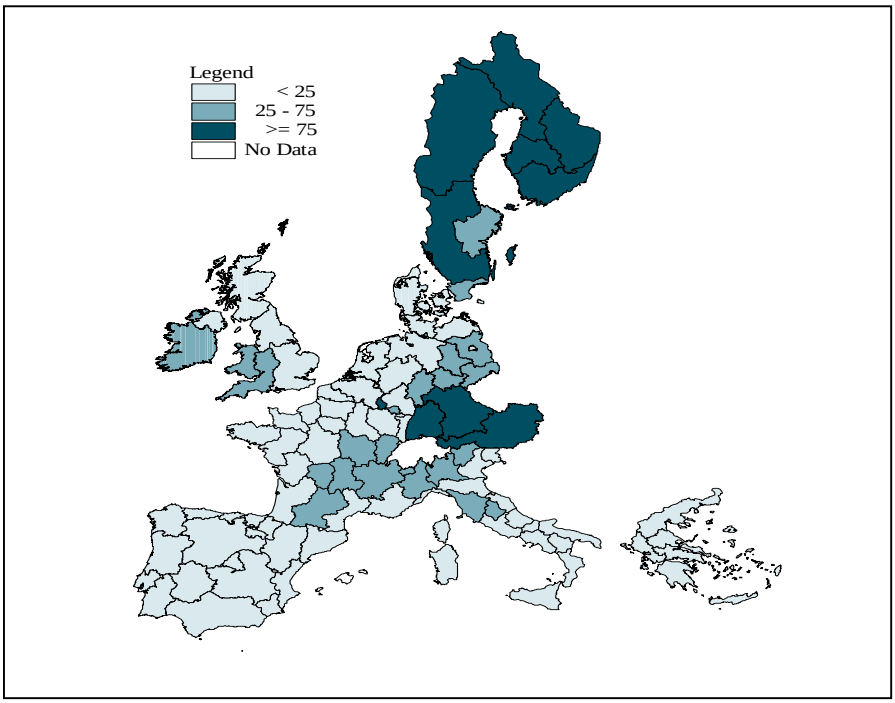
Source: Varela-Ortega, C (2004): Cross Compliance in irrigated agriculture and wetland areas. Polytechnic University of Madrid.

4.4 Cross compliance and Environmental Schemes at EU level (a spatial overview)

There is a clear linkage between cross compliance and Agri-Environmental schemes as cross compliance supports the transition to higher standards that may then become Agri-environment measures (Bartram, 2004). Cross compliance therefore aims to prevent further environmental damage by reinforcing legislative standards to protect the environment and nature. However, in some cases standards for Annex IV may not be too different from Good Farming Practices or, in other cases, they might be too similar to some of the standards set for agri-environmental schemes posing coordination difficulties (Nitsch and Osterburg, 2004; Calatrava, 2004).

Agri-Environmental programs have been comprehensively analysed in an EU context (Oltmer et al, 2003) as well as their interlinkages with cross compliance potential effects (Brouwer, 2004). Agri-environmental programs are distributed across the EU showing a rather uneven pattern with a clear bias towards the northern EU member states (Figure 5). More than 75% of the farmers in Finland, Austria, most of Sweden and parts of Germany have joined the programs where they tend to be rather broad. Moreover, payments per hectare tend to be relatively high in northern Europe as well, especially in Finland, northern parts of Sweden, Austria and parts of Italy (Brouwer, 2004).

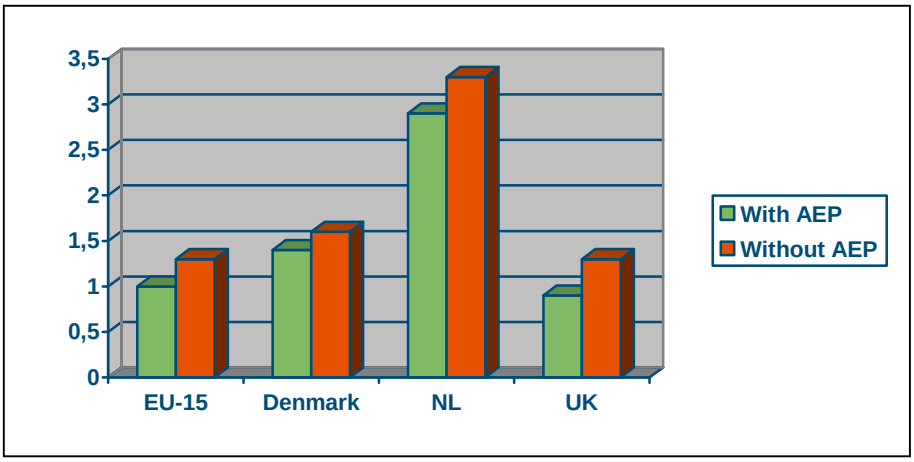
Figure 5 – Holdings Enrolled in Agri-environment Programmes (% of total)



Source: Brouwer, F. (2004), Direct payments and agri-environment support in the EU. LEI-Wageningen,

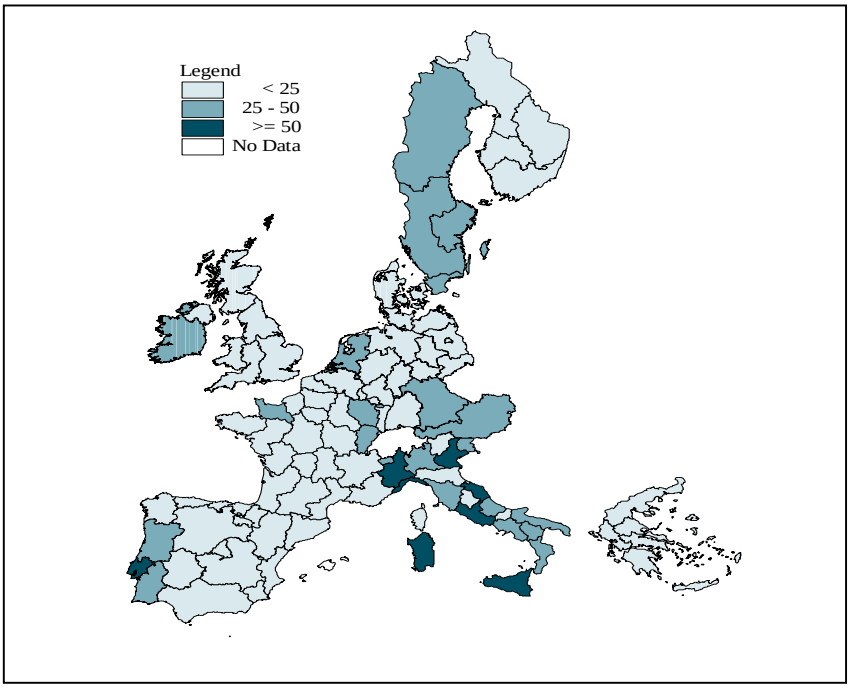
Agri-environmental programs play a major role in terms of total income support in many parts of the EU. In fact, at least half of family farm income on holdings in the northern part of the UK, Denmark, Sweden, and some regions in Germany and France comes from agri-environmental payments. In these regions considerable differences are found across farming types. However, in specific intensive sectors in the northern EU regions, such as the milk sector, compensation payments tend to be low in some areas like the Netherlands and Lower Saxony, thus income loss for joining the Agri-environmental programs is considerable. This situation prevents farmers from joining the programs and therefore the production intensity of dairy farms is not reduced (Figure 6).

Figure 6 – Intensity of dairy farms with and without AEP (ESU/ha)



Source: Brouwer, F. (2004), Direct payments and agri-environment support in the EU. LEI-Wageningen,

Figure 7 – Agri-environment payments as percentage of total CAP payments (%)



Source: Brouwer, F. (2004), Direct payments and agri-environment support in the EU. LEI-Wageningen,

Direct payments for crops and livestock are the major source of income in the EU farms, covering 75% of total payments in large parts of the EU. Conversely, compensatory payments from agri-environment programs are a considerably less important source of income as they cover more than half of total payments only in limited parts of the EU (Figure 7). In large parts of the UK, Germany, France, Finland, Spain, Italy and Greece the provision of direct payments exceed the amounts from agri-environment programs to a considerable extent (crops and livestock farming). In farms with livestock production other than dairy (sheep, goats and other grazing animals) support on crops is negligible but direct payments on holdings with agri-environmental payments tend to be higher than on farms without such payments. Farm size has dropped during the second half of the 1990s, especially on holdings without agri-environment programs. In consequence, cross compliance might give a strong incentive to such holdings, should measures be introduced. In general terms, there is a clear scope for developing incentives for environmental and nature protection to the provision of direct payments across the EU as foreseen by cross compliance policies.

4.5 Potential effects of Cross compliance at sectors' level (a sectoral overview)

Structural aspects related to the variety of farming systems and types of holdings have a clear effect on the potential impacts of cross compliance policies across the EU member states. The cost of compliance with the GAEC for farmers will vary considerably by farm types.

In Germany, for instance, cross compliance may produce additional discrimination against young and expanding farmers as it produces clear disincentives to cooperative integrated farms. As rents from direct payments stay with the landowners, the first beneficiaries of decoupled payment rights, young farmers are negatively more affected in relative terms (Nitsch & Osterburg, 2004). Moreover, participants of Agri-environmental measures in less favoured areas are controlled above average (5% instead of 1%) and thus will have a higher risk of punishment evidencing inefficient parallel control structures that will need to be avoided.

In Italy structural effects of cross compliance are foreseen according to a simulation model analysis conducted at regional scale (Povellato, 2004). The study concludes that cross compliance will tend to increase extensification in general terms by substituting intensive crops. In turn, it will introduce a greater variability of farming types as a response to market driven productions and durum wheat will decrease substantially in the central-south regions. The threat of land abandonment will increase, concentrating in the smaller less efficient farms but not only in the marginal areas. In fact, it is expected that the average cost of complying with GAEC measures for non-marginal farms in the more fertile plain areas will encourage abandonment of farm production.

In the Spanish southern regions of the Mediterranean littoral where erosion is the major environmental problem, cross compliance programs tend to neglect important factors that affect the adoption of certain soil conservation practices. These include the continuity of family relatives in farming, the farm debt/equity ratio and macroeconomic indicators such as interest rates and access to the loan market (Calatrava, 2004). Based on a large-scale EU project survey for conservation practices in olive production in the region of Andalucia, it was concluded that large, more profitable and high equity farms are more prone to adoption of soil conservation practices (Calatrava, 2004). Inversely, part-time farmers and farmers with smallholdings quite often do not comply with GFP and do not even participate in soil conservation programs. In consequence, acting on these key factors may increase the potential beneficial effects of cross compliance policies.

In the Mediterranean regions, smaller and less profitable farms are more prone to erosion damage. As marginal costs of abatement are larger for more erosive lands, the introduction of cross compliance measures may favour those holdings where marginal social benefits of erosion control are smaller. This in turn will increase the risk of land abandonment due to a rise in farm costs to comply with cross compliance standards (Calatrava, 2004; Dimipoulous et al, 2004). In consequence, in erosion-prone Mediterranean regions, standard requirements and payments should be different for lands with a higher risk of erosion and completed with farm modernisation programs. In general terms, cross compliance policies should reflect the variety of EU farming systems and habitats and consequently they should be applied in a discriminatory manner reflecting the environmental risk variability across areas and regions.

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6 Annexes

Annex 1: Granada seminar program
Annex 2: Participants list

Concerted Action "Developing cross compliance in the EU - background, lessons and opportunities" (QLK5-CT-2002-02640)
Seminar 4: Evaluation of cross-compliance - Granada (Spain), 19-20 April 2004

PROGRAM

MONDAY 19

TIME	ISSUE	SPEAKER
8:40	Bus leaves the hotel	
9:00-9:15	Introduction to the seminar	Consuelo Varela Ortega (Universidad Politécnica de Madrid, Spain)
	Session I: Update on cross compliance implementation – An EU perspective	
9:15-9:40	DG-Agriculture	A. de Angelis (DG agriculture)
	Session II: Update on cross compliance implementation – A member state perspective	
9:40-10:00	Spain	B. Garcés (Spanish Ministry of Agriculture, Fisheries and Food)
10:00-10:20	Germany	Carlo Prinz (German Federal Ministry of Consumer Protection, Food and Agriculture)
10:20-10:50	Discussion	
10:50-11:20	Coffee break	
11:20-11:40	France	Estelle Godart (French Ministry of Agriculture, Food, Fisheries and Rural Affairs)
11:40- 12:00	The Netherlands	Hans Brand (Dutch Ministry of Agriculture, Nature Management and Fisheries)
12:00-12:20	Greece	D. Dimopoulos (Greek Ministry of Agriculture) / G. Vlahos (Agricultural University of Athens, AUA) / L. Louloudis (AUA)
12:20-12:50	Environmental NGOs	Juan Oñate (Universidad Autónoma de Madrid and WWF-Adena, Spain) / Inmaculada de la Concha (SEO-Birdlife, Spain)
12:50-13:30	Discussion	
13:30-14:40	Lunch	
	Session III: Implementation and assessment of cross-compliance (I)	
14:40-15:00	Assessing the costs of implementation	David Baldock (Institute for European Environmental Policy)
15:00-15:20	Implementing cross compliance: an environmental regulator's point of view	Hannah Bartram (Environment Agency, UK)
15:20- 15:40	Cross-compliance assessment: Modelling and policy analysis	Daniel Deybe (European Commission-RTD)
15:40-16:00	Cross-compliance in irrigated agriculture and wetland areas	Consuelo Varela Ortega (Universidad Politécnica de Madrid, Spain)
16:00-16:20	Discussion	
16:30	Bus leaves for the hotel / visit (optional)	
Evening	Dinner	

Concerted Action "Developing cross compliance in the EU - background, lessons and opportunities" (QLK5-CT-2002-02640)
Seminar 4: Evaluation of cross-compliance - Granada (Spain), 19-20 April 2004

PROGRAM

TUESDAY 20

TIME	ISSUE	SPEAKER
8:40	Bus leaves the hotel	
	Session IV: Implementation and assessment of cross-compliance (II)	
9:00-9:20	Impact assessment of cross-compliance at the EU level	Floor Brouwer (The Agricultural Economics Research Institute, The Netherlands)
9:20-9:40	Potential effects of cross-compliance across sectors	Xavier Poux (Applications des Sciences de l'Action, AscA, france)
9:40-10:00	Cross-compliance for soil erosion in semi-arid areas	Javier Calatrava (Universidad Politécnica de Cartagena, Spain)
10:00-10:30	Discussion	
10:30-11:00	Coffee break	
11:00-11:20	Potential effects of cross-compliance in Italian agriculture	Andrea Povelato (Instituto Nazionale di Economia Agraria, Italy)
11:20-11:40	Impact assessment of cross-compliance in Germany	Heike Nitsch (Federal Agricultural Research Center, FAL, Germany)
11:40-12:30	Discussion and summing up	Vicki Swales (Institute for European Environmental Policy)
12:45	Bus leaves for the hotel / city / airport	
Afternoon	Steering committee	

SEMINAR: "EVALUATION OF CROSS-COMPLIANCE"

LIST OF PARTICIPANTS

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