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0 SUMMARY AND CONCLUSIONS

0.1 Background

Olive production is a significant land use in the southern Member States of the EU with important environmental, social and economic considerations. The main areas of olive oil production are in Spain (2.4 million ha), followed by Italy (1.4 million ha), Greece (1 million ha) and Portugal (0.5 million ha). France is a very much smaller producer, with 40,000 ha.

The requirement to integrate environmental concerns into Community policies, including agriculture policy, is enshrined in the European Union (EU) Treaties. However, until now there have been considerable obstacles to achieving this integration, including a lack of clear and comprehensive information concerning the environmental effects of particular agricultural sectors and systems, and an absence of research into practical policy options.

These absences are particularly apparent in the case of certain farming systems characteristic of the Mediterranean region, such as olive production, whose environmental effects have been studied less than farming systems more characteristic of central and northern Europe.

The olive regime of the Common Agricultural Policy (CAP) supports production by means of an annual budget of currently around Euro 2,250 million and has a strong influence on the sector. In 1997, the European Commission (EC) released an “options paper” highlighting the need to reform the olive support regime. This led to a simplified “interim” regime for the period 1998-2001 which retained production support as the principal measure.

The European Commission (EC) is due to present a proposal during 2000 for a new regime to be implemented from November 2001.

0.2 Study brief

With a view to integrating environmental concerns into agricultural policies affecting olive production, the EC commissioned the present study with the aim of providing a detailed description of the environmental impact (problems and benefits) of olive production in the EU and producing practical suggestions of how to reduce or eliminate any identified negative environmental effects.

The contractor was requested to consider the definition of codes of “good agricultural practice” in relation to olive farming, incorporating basic environmental protection, as well as identifying environmental services which could be considered to go beyond good agricultural practice.

0.3 Olive farming types and environmental effects

This study revealed considerable differences between olive farming areas and, in some cases, between different farms within a given area. These differences are strongly apparent in the physical characteristics of the plantations, management practices, socio-economic situation and environmental effects. Olive farms in the EU range from the very small (<0.5ha) to the very large (>500ha) and from the traditional, low-intensity grove to the intensive, highly mechanised plantation.

Overall, three broad types of plantation were identified:

- Low-input traditional plantations and scattered trees, often with ancient trees and typically planted on terraces, which are managed with few or no chemical inputs, but with a high labour input.
- Intensified traditional plantations which to some extent follow traditional patterns but are under more intensive management making systematic use of artificial fertilisers and pesticides and with more intensive weed control and soil management. There is a tendency to intensify further by means of irrigation, increased tree density and mechanical harvesting.
- Intensive modern plantations of smaller tree varieties, planted at high densities and managed under an intensive and highly mechanised system, usually with irrigation.

As a result of their particular plantation characteristics and farming practices, the low-input traditional plantations have potentially the highest natural value (biodiversity and landscape value) and most positive effects (such as water management in upland areas) as well as the least negative effects on the environment. These plantations are also the least viable in economic terms and hence most vulnerable to abandonment.

The intensified traditional and modern intensive systems are inherently of least natural value and have potentially, and in practice, the greatest negative environmental impacts, particularly in the form of soil erosion, run-off to water bodies, degradation of habitats and landscapes and exploitation of scarce water resources.

Soil erosion is probably the most serious environmental problem associated with olive farming (as distinct from olive processing, which is not covered by this study). Inappropriate weed-control and soil-management practices, combined with the inherently high risk of erosion in many olive farming areas, is leading to desertification on a wide scale in some of the main producing regions, as well as considerable run-off of soils and agro-chemicals into water bodies.

The broad picture for the olive sector is of intensified production leading to certain negative effects on the environment, reflecting similar conclusions for European agriculture in general over recent decades in numerous studies, including the recent EC report on sustainable agriculture (EC, 1999).

However, the present study concludes that, at least in the olive sector, the negative environmental effects of intensification could be reduced considerably by means of

appropriate farming practices; and that, with appropriate support, traditional low-input plantations could continue to maintain important natural and social values in marginal areas.

0.4 Objectives for environmental improvements

The study concludes that the following aims need to be addressed in order to improve the environmental effects of olive farming:

Reducing negative effects in traditional-intensified and modern-intensive systems:

- To reduce currently high levels of soil erosion and run-off to water courses, mainly in intensified-traditional and modern-intensive systems, by promoting changes in management practices or, in extreme cases, a change in land use (maintaining olive trees and introducing grazing and/or afforestation).
- To promote a more rational use of agro-chemicals in order to reduce impacts on flora and fauna (biodiversity) and reduce the risks of pollution, especially of soil and water.
- To promote a more sustainable exploitation of water resources for irrigation and control the spread of irrigation in areas with sensitive water resources.
- To prevent the further expansion of olive plantations onto valuable habitats (natural and semi-natural) and soils that are vulnerable to erosion.

Maintaining and improving positive effects:

- To prevent the abandonment of olive plantations where these make a positive contribution to natural and landscape values, mainly low-input traditional systems.
- To further develop and promote sustainable and environmentally-favourable olive farming systems, such as organic and integrated production systems.
- To promote the maintenance and improvement of natural values in olive plantations (maintenance and restoration of habitats and landscape features).

Action is required in four key areas in order to promote the above aims, namely:

- Improving farming practices.
- Monitoring and steering changes in land use (abandonment, expansion and set-aside).
- Information, advice and training for farmers.
- Research, monitoring and the development of data-bases which integrate agronomic, environmental and land-use criteria.

0.5 Policy review

Until now, EU policies have not promoted, at a general level, either sustainable olive farming or the effective integration of environmental concerns into the sector.

This study concludes that the existing system of production support produces negative environmental effects by rewarding intensification and expansion. Whilst most notable in the more productive areas, in the form of developments such as new plantations, irrigation and intensive use of inputs, intensification is also apparent in many marginal areas.

By operating in direct proportion to production, the olive regime offers relatively little support for low-input olive plantations in marginal areas which generally are those of most environmental value. At the same time, the support regime currently includes no specific mechanism for improving the environmental effects of olive production.

Apart from the CAP olive regime, other EU policies of relevance to the study include FEOGA structural measures (e.g. for grubbing-out old groves, for investments in replanting and irrigation and for setting up young farmers), aid for farmers in Less Favoured Areas and, since the mid-1990s, agri-environment programmes established under Regulation 2078/92.

In the framework of these policies, measures to reduce environmental impacts or maintain environmental values have been on an extremely small scale, compared with the resources devoted to production support and production-orientated structural objectives. In particular, agri-environmental schemes under Regulation 2078/92 have had very little impact on olive farming to date (with the exception of Portugal) and have failed to address the scale and range of environmental issues identified in the present study.

Nevertheless, the study revealed examples of positive initiatives in several of the olive producing regions, developed in different cases by agricultural authorities, farmer associations and NGOs, and supported in some instances by EU policies such as Objective 1 rural development programmes and agri-environment schemes. These examples illustrate the great opportunities which exist to promote environmental improvements in olive farming and which could produce benefits on a considerable scale if greater resources were made available for targeted measures with clear environmental objectives.

Significant lessons could also be learned from policy experience in the USA, where soil erosion in arable farming has been tackled successfully over extensive areas by means of “cross-compliance” measures (attaching environmental conditions to support payments).

0.6 Practical suggestions

Important opportunities exist within the current policy framework for promoting environmental improvements in olive farming, notably:

- The CAP olive support regime, due to be reformed during 2000 for the implementation of a new regime from November 2001.
- New environmental measures provided for under Article 3 of the “common rules” Regulation 1259/1999, including the possibility for attaching environmental conditions to CAP support payments.
- Agri-environment measures, previously Regulation 2078/92 and now under Chapter VI of the “rural development” Regulation 1257/1999; and measures for less-favoured

areas and areas with environmental restrictions, under Chapter V of Regulation 1257/1999.

- The rural development measures established under Regulation 1257/1999, particularly in Chapter IX (adaptation and development of rural areas) and in Chapter I (investment in agricultural holdings).

Based on the information provided by all of the national and case studies, this report makes the following practical suggestions for integrating environmental protection into the main policies affecting olive farming and in order to promote sustainable practices in the sector:

- The change from production support to a flat-rate area payment unrelated to production or yields. A minimum number of trees per hectare should be established, low enough to allow very extensive, traditional plantations to benefit (e.g. 40-50 trees per hectare). Scattered trees not in plantations and with an overall density below this limit could be paid the same level of aid, but converted to a tree-basis.
- All olive producers receiving CAP support should be required to comply with locally-established codes of Good Agricultural Practice (GAP) incorporating basic environmental protection, within an EU framework.
- A higher level of area payment could be introduced (for example under the Less Favoured Areas scheme or within the proposed area-payment support scheme) for plantations in environmentally very sensitive areas and for which GAP is more demanding and implies a higher cost than in other areas.
- The application of agri-environment programmes to olive farming should be greatly expanded in order to offer payments to all olive farmers in return for additional environmental services which go beyond GAP, under schemes designed to address specific environmental priorities in the region or area.

The authors believe that the policy recommendations made in this study could, if implemented effectively, result in a considerable reduction in the environmental impacts of olive farming, as well as providing significant benefits in terms of the conservation of soil and water resources and of biodiversity and landscape values. Potentially, the proposed measures could also lead to improved viability and employment on olive farms in marginal rural areas.